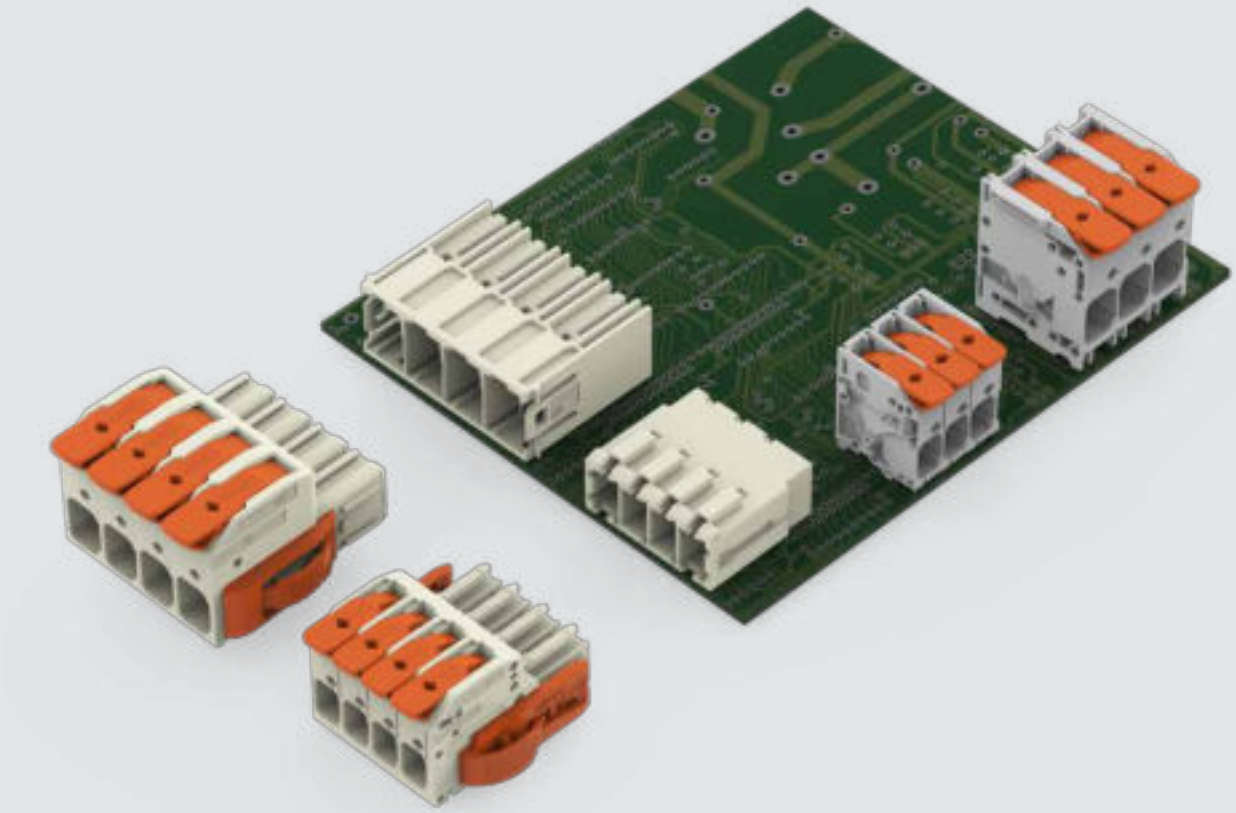
WAGO PCB Terminal Blocks and Connectors

Full Line Catalog, Volume 2 – Edition 2021/2022

2



WAGO Full Line Catalogs

Volume 1, WAGO Rail-Mount Terminal Blocks and Connectors

- Rail-Mount Terminal Blocks
- Rail-Mount Terminal Blocks with Pluggable Connector (X-COM®-SYSTEM)
- Patchboard Systems
- Terminal Strips
- PUSH WIRE® Connectors for Junction Boxes
- Lighting Connectors
- Shield Connecting System

Volume 2, WAGO PCB Terminal Blocks and Connectors

- PCB Terminal Blocks
- THR/SMD PCB Terminal Blocks
- *MULTI CONNECTION SYSTEM (MCS)*
- Pluggable PCB Terminal Blocks
- Feedthrough Terminal Blocks
- Specialty Connectors
- Empty Housings

Volume 3, Automation Technology

- Solutions & Software
- Operating & Monitoring
- Controllers, Edge Devices
- Modular I/O-SYSTEM IP20, I/O-SYSTEM IP67
- Industrial Switches
- Radio Technology
- IP67 Sensor/Actuator Boxes, IP67 Cables and Connectors

Volume 4, WAGO Interface Electronic

- Relay and Optocoupler Modules
- Signal Conditioners and Isolation Amplifiers
- Current and Energy Measurement Technology
- Power Supplies
- Interface Modules and System Wiring
- Overvoltage Protection
- Empty Housings

Volume 5, WAGO Pluggable Connection System *WINSTA®*

- Pluggable Connectors
- Snap-In Device Connectors
- Pluggable PCB Connectors
- Distribution Connectors
- Cable Assemblies
- Flat Cable Systems
- Distribution Boxes

Volume 6, WAGO Marking

- Printer
- Software
- Terminal Block Marking
- Cable and Conductor Marking
- Device Marking
- Marker Carriers

Volume 2, WAGO PCB Terminal Blocks and Connectors

		Page
	WAGO PCB Terminal Blocks	17
	WAGO THR PCB Terminal Blocks	267
	WAGO SMD PCB Terminal Blocks	301
	WAGO *MULTI CONNECTION SYSTEM* (*MCS*) MICRO Pin Spacing 2,5 mm / 0,08 … 0,5 mm² (28 … 20 AWG)	337
	WAGO *MULTI CONNECTION SYSTEM* (*MCS*) MINI Pin Spacing: 3.5 mm (0.138 inch), 3.81 mm (0.15 inch) / 0.08 … 1.5 mm² (28 … 14 AWG)	357
	WAGO *MULTI CONNECTION SYSTEM* (*MCS*) MINI HD Pin Spacing: 3.5 mm (0.138 inch) / 0.08 … 1.5 mm² (28 … 16 AWG)	425
	WAGO *MULTI CONNECTION SYSTEM* (*MCS*) MINI SL Pin Spacing: 3.5 mm (0.138 inch) / 0.2 … 1.5 mm² (24 … 16 AWG)	449
	WAGO *MULTI CONNECTION SYSTEM* (*MCS*) MIDI Pin Spacing: 5 mm (0.197 inch), 7.5 mm (0.295 inch) / 0.08 … 2.5 mm² (28 … 12 AWG)	459
	WAGO *MULTI CONNECTION SYSTEM* (*MCS*) MIDI Classic Pin Spacing: 5 mm (0.197 inch), 5.08 mm (0.2 inch), 7.5 mm (0.295 inch), 7.62 mm (0.3 inch) / 0.08 … 2.5 mm² (28 … 12 AWG)	557
	WAGO *MULTI CONNECTION SYSTEM* (*MCS*) MAXI 6 Pin Spacing: 7.62 mm (0.3 inch) / 0.5 … 10 mm² (20 … 8 AWG) **WAGO *MULTI CONNECTION SYSTEM* (*MCS*) MAXI 16** Pin Spacing: 10.16 mm (0.4 inch) / 0.75 … 16 mm2 (18 … 4 AWG)	749
	Pluggable WAGO PCB Terminal Blocks Pin Spacing: 3.5 mm (0.138 inch), 5 mm (0.197 inch), 5.75 mm (0.226 inch)	787
	WAGO Feedthrough Terminal Strips	799
	WAGO Specialty Connectors **WAGO** Wire-Tap Branch Connectors; **WAGO** Connectors for KNX/EIB Applications	835
	Modular WAGO Empty Housings	849
	WAGO Accessories and WAGO Tools	861
	Technical Section	889
	Index and Addresses	939

Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

PUSH-IN CAGE CLAMP®

The universal connection with an additional advantage: Push-in connection
Terminate solid and stranded (Class B 7 strands or less), as well as ferruled conductors, by simply pushing them in – no tools required.

Termination for all conductor types:
- Open clamping unit.
- Insert the conductor.
- Release clamp – done!

Push-in CAGE CLAMP® terminates the following copper conductors:
solid

stranded

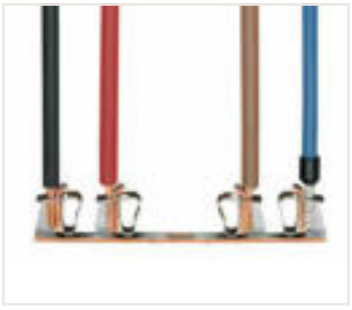
fine-stranded, also with tinned single strands

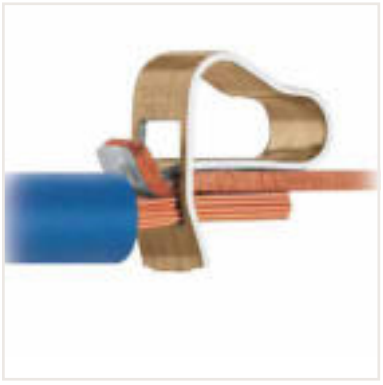
fine-stranded, tip-bonded

fine-stranded, with ferrule (gastight crimped)

fine-stranded, with pin terminal (gastight crimped)

CAGE CLAMP®





The universal connection for solid, stranded and fine-stranded conductors

Termination:
- Open clamping unit.
- Insert the conductor.
- Release clamp – done!

CAGE CLAMP® terminates the following copper conductors:
solid

stranded

fine-stranded, also with tinned single strands

fine-stranded, tip-bonded

fine-stranded, with ferrule (gastight crimped)

fine-stranded, with pin terminal (gastight crimped)

Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

POWER CAGE CLAMP®

POWER CAGE CLAMP terminates the following copper conductors:
solid

stranded

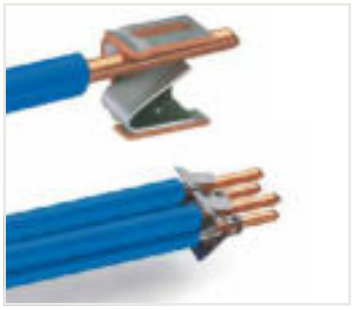
fine-stranded, also with tinned single strands

fine-stranded, with ferrule (gastight crimped)

The universal connection for conductors larger than 35 mm² (2 AWG)

Termination:
- Open clamp by turning a T-wrench counter-clockwise.
- Press the integrated latch to open clamping unit for hands-free wiring.
- Insert the conductor.
- A small counter-clockwise rotation closes the clamp, securing conductor.

PUSH WIRE®

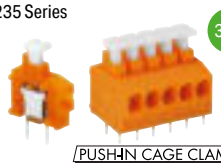
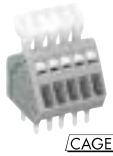
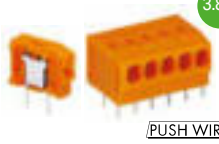
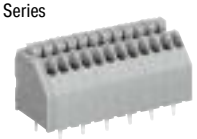


PUSH WIRE® terminates the following copper conductors:
solid

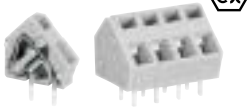
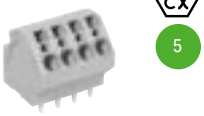
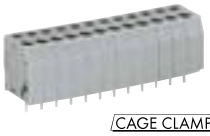
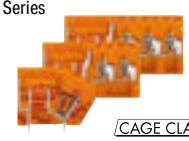
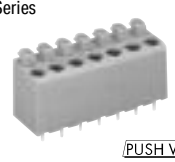
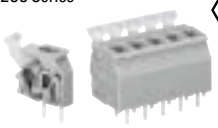
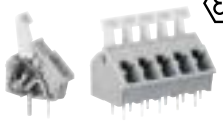
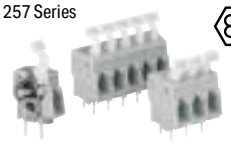
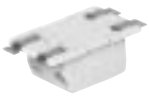
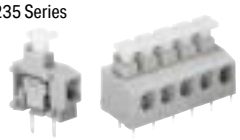
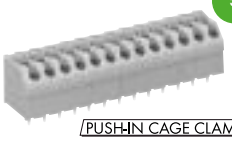
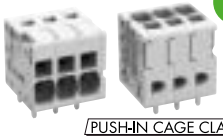
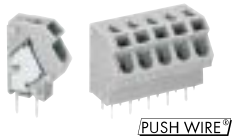
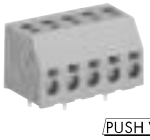
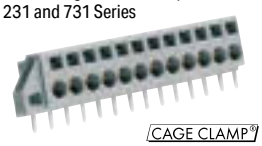
PUSH WIRE® connection for solid and stranded conductors (depending on the model used)

Termination:
Tool-free, twist-free terminations for solid and rigid stranded conductors – simply push into the unit.

PCB Terminal Blocks
– Product Overview by Pin Spacing –

2.5 mm/0.098 inch, 2.54 mm/0.1 inch	3 mm/0.118 inch	3.5 mm/0.138 inch, 3.81 mm/0.15 inch		4 mm/0.156 inch
233 Series CAGE CLAMP® 0.08 … 0.5 mm² / 28 … 20 AWG Page 21	2059 Series SMT PUSH WIRE® 0.14 … 0.34 mm² / 26 … 22 AWG "sol." Page 303, 304	739 Series CAGE CLAMP® 0.08 … 1.5 mm² / 28 … 14 AWG Page 79, 81		2060 Series THR PUSH-IN CAGE CLAMP® 0.2 … 0.75 mm² / 24 … 18 AWG Page 271 … 275
218 Series CAGE CLAMP® 0.08 … 0.5 mm² / 28 … 20 AWG Page 97	2059 Series SMT PUSH WIRE® 0.5 mm² / 20 AWG "sol." Page 303, 304	235 Series 3.81  PUSH-IN CAGE CLAMP® 0.5 … 1.5 mm² / 20 … 16 AWG Page 185, 187		2060 Series THR PUSH-IN CAGE CLAMP® 0.2 … 0.75 mm² / 24 … 18 AWG Page 271 … 275
218 Series THR CAGE CLAMP® 0.08 … 0.5 mm² / 28 … 20 AWG Page 295, 296		805 Series 3.5 PUSH-IN CAGE CLAMP® 0.2 … 1.5 mm² / 24 … 16 AWG Page 191 … 194	805 Series 3.5 THR PUSH-IN CAGE CLAMP® 0.2 … 1.5 mm² / 24 … 16 AWG Page 291	2060 Series SMT PUSH-IN CAGE CLAMP® 0.2 … 0.75 mm² / 24 … 18 AWG Page 307, 309
233 Series  CAGE CLAMP® 0.08 … 0.5 mm² / 28 … 20 AWG Page 101		250 Series 3.5 PUSH-IN CAGE CLAMP® 0.2 … 1.5 mm² / 24 … 16 AWG Page 171, 172	250 Series THR 3.5 PUSH-IN CAGE CLAMP® 0.2 … 1.5 mm² / 24 … 16 AWG Page 289	2060 Series SMT PUSH-IN CAGE CLAMP® 0.2 … 0.75 mm² / 24 … 18 AWG Page 307, 309
234 Series CAGE CLAMP® 0.08 … 0.5 mm² / 28 … 20 AWG Page 103			235 Series 3.81  PUSH WIRE® 0.5 … 1.5 mm² / 20 … 16 AWG "sol." Page 221, 223	
250 Series  PUSH-IN CAGE CLAMP® 0.2 … 0.5 mm² / 24 … 20 AWG Page 167, 168		744 Series 3.5 PUSH WIRE® 0.5 … 1.5 mm² / 20 … 16 AWG "sol." Page 231, 232	735 Series 3.81 PUSH WIRE® 0.5 … 1.5 mm² / 20 … 16 AWG "sol." Page 235 … 239	
250 Series THR 2.5 PUSH-IN CAGE CLAMP® 0.2 … 0.5 mm² / 24 … 20 AWG Page 287				

Ex e II approval — THR Through-Hole Reflow Soldering — SMT Surface-Mount Technology

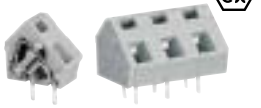
5 mm/0.197 inch, 5.08 mm/0.2 inch				6 mm/0.236 inch
236 Series  CAGE CLAMP®	236 Series CAGE CLAMP®	745 Series  CAGE CLAMP®	745 Series CAGE CLAMP®	2061 Series PUSH-IN CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG Page 23, 29	0.08 … 2.5 mm² / 28 … 12* AWG Page 293	0.08 … 4 mm² / 28 … 12 AWG Page 37, 40	0.08 … 4 mm² / 28 … 12 AWG Page 43, 45	0.5 … 1.5 mm² / 20 … 16 AWG Page 277 … 283
739 Series  CAGE CLAMP®		740 Series CAGE CLAMP®	816 Series PUSH-IN CAGE CLAMP®	2061 Series PUSH-IN CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG Page 83		0.08 … 2.5 mm² / 28 … 12* AWG Page 93	2 x 0.2 … 1.5 mm² / 2 x 24 … 16 AWG Page 143	0.5 … 1.5 mm² / 20 … 16 AWG Page 277 … 283
Disconnect/test terminal blocks, 742 Series CAGE CLAMP®	Terminal blocks with jumper slot, 742 Series CAGE CLAMP®	Fuse terminal blocks, 742 Series  CAGE CLAMP®	804 Series PUSH-IN CAGE CLAMP®	2061 Series PUSH-IN CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG Page 247, 249	0.08 … 2.5 mm² / 28 … 12* AWG Page 251, 253	0.08 … 2.5 mm² / 28 … 12* AWG Page 255, 257	0.25 … 2.5 mm² / 20 … 12 AWG Page 197	0.5 … 1.5 mm² / 20 … 16 AWG Page 313, 315
736 Series CAGE CLAMP®	737 Series CAGE CLAMP®	738 Series CAGE CLAMP®	735 Series  PUSH WIRE®	2061 Series PUSH-IN CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG Page 59, 63	0.08 … 2.5 mm² / 28 … 12* AWG Page 67, 71	0.08 … 2.5 mm² / 28 … 12* AWG Page 75, 77	0.5 … 1.5 mm² / 20 … 16 AWG "sol." Page 235 … 241	0.5 … 1.5 mm² / 20 … 16 AWG Page 313, 315
255 Series  CAGE CLAMP®	256 Series  CAGE CLAMP®	257 Series  CAGE CLAMP®	2604 Series PUSH-IN CAGE CLAMP®	2070 Series  PUSH-IN CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG Page 107 … 111	0.08 … 2.5 mm² / 28 … 12* AWG Page 113 … 121	0.08 … 2.5 mm² / 28 … 12* AWG Page 123 … 131	0.2 … 4 mm² / 24 … 12 AWG Page 199 … 202	0.2 … 0.75 mm² / 24 … 18 AWG Page 321 … 234
235 Series  PUSH-IN CAGE CLAMP®	250 Series  PUSH-IN CAGE CLAMP®	250 Series PUSH-IN CAGE CLAMP®	2624 Series  PUSH-IN CAGE CLAMP®	2065 Series PUSH WIRE® PUSH-IN CAGE CLAMP®
0.5 … 1.5 mm² / 20 … 14 AWG Page 181, 183	0.5 … 1.5 mm² / 20 … 14 AWG Page 175	2 x 0.5 … 1.5 mm² / 20 … 14 AWG Page 177	0.2 … 6 mm² / 24 … 10 AWG Page 147 … 150	0.2 … 0,75 mm² / 24 … 18 AWG Page 317, 319
235 Series PUSH WIRE®	254 Series  PUSH WIRE®	253 Series  PUSH WIRE®		
0.5 … 2.5 mm² / 20 … 14 AWG "sol." Page 217, 219	0.5 … 2.5 mm² / 20 … 12 AWG "sol." Page 227, 229	2 x 0.5 … 1.5 mm² / 2 x 20 … 16 AWG "sol." Page 243		
Feedthrough terminal strips, 741 Series CAGE CLAMP®	Feedthrough terminal strips, 231 and 731 Series  CAGE CLAMP®			
0.08 … 2.5 mm² / 28 … 12* AWG Page 819 … 825	0.08 … 2.5 mm² / 28 … 12* AWG Page 827, 831			

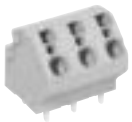
Only available in this pin spacing!

*AWG 12: THHN, THWN

PCB Terminal Blocks
– Product Overview by Pin Spacing –

7.5 mm/0.295 inch, 7.62 mm/0.3 inch

236 Series (Ex)

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 25, 31

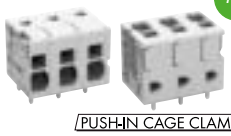
745 Series (Ex, 7.5)

CAGE CLAMP®
0.08 … 4 mm² / 28 … 12 AWG
Page 40

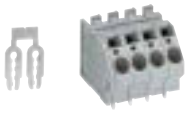
2604 Series (7,5)

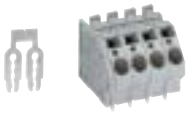
PUSH-IN CAGE CLAMP®
0.2 … 4 mm² / 24 … 12 AWG
Page 201, 202

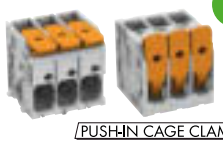
739 Series

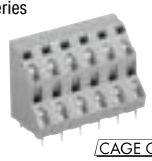
CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 87, 89

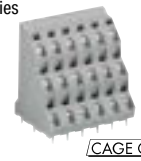
2624 Series (7,5)

PUSH-IN CAGE CLAMP®
0.2 … 6 mm² / 24 … 10 AWG
Page 149, 150

745 Series (Ex, 7.5)

CAGE CLAMP®
0.2 … 4 mm² / 28 … 12 AWG
Page 43, 45

745 Series (Ex, 7.5)

CAGE CLAMP®
0.2 … 6 mm² / 24 … 10 AWG
Page 49, 51

2606 Series (7,5)

PUSH-IN CAGE CLAMP®
0.2 … 10 mm² / 24 … 8 AWG
Page 205, 207

736 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 58, 62

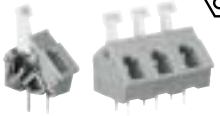
737 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 66, 70

2626 Series (7,5)

PUSH-IN CAGE CLAMP®
0.2 … 10 mm² / 24 … 8 AWG
Page 153, 155

255 Series (Ex)

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 107 … 111

256 Series (Ex)

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 113 … 121

257 Series (Ex)

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 123 … 131

235 Series

PUSH-IN CAGE CLAMP®
0.5 … 1.5 mm² / 20 … 14 AWG
Page 181

250 Series (7.5)

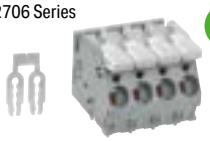
PUSH-IN CAGE CLAMP®
0.5 … 1.5 mm² / 20 … 14 AWG
Page 175

804 Series (7.5)

PUSH-IN CAGE CLAMP®
0.25 … 2.5 mm² / 22 … 12 AWG
Page 197

2706 Series (7.5)

CAGE CLAMP®
0.5 … 6 mm² / 20 … 10 AWG
Page 133

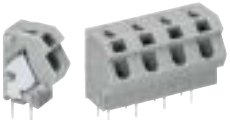
2706 Series (7.5)

CAGE CLAMP®
0.5 … 6 mm² / 20 … 10 AWG
Page 135

746 Series (7.5)

PUSH-IN CAGE CLAMP®
2 x 0.5 … 10 mm² / 2 x 20 … 8 AWG
Page 143

235 Series

PUSH WIRE®
0.5 … 2.5 mm² / 20 … 14 AWG "sol."
Page 205

254 Series

PUSH WIRE®
0.5 … 2.5 mm² / 20 … 12 AWG "sol."
Page 215, 217

Feedthrough terminal strips, 741 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 789 … 795

8 mm/0.314 inch

2060 Series (SMT)

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 311

2060 Series (THR)

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 275

2060 Series (THR)

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 275

10 mm/0.394 inch, 10.16 mm/0.4 inch

236 Series (Ex)

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 27, 33

745 Series (Ex, 10)

CAGE CLAMP®
0.2 … 6 mm² / 24 … 10 AWG
Page 47

745 Series (Ex, 10)

CAGE CLAMP®
0.08 … 4 mm² / 28 … 12 AWG
Page 43, 45

736 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 61, 65

255 Series (Ex)

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 107 … 111

235 Series

PUSH-IN CAGE CLAMP®
0.5 … 1.5 mm² / 20 … 14 AWG
Page 181

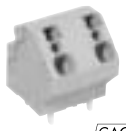
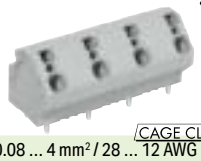
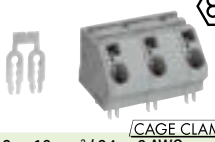
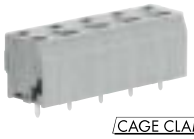
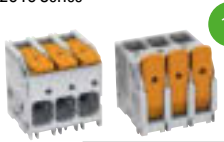
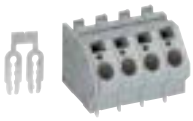
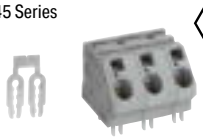
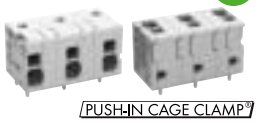
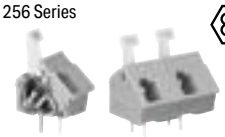
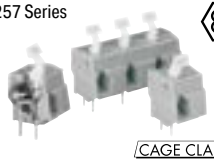
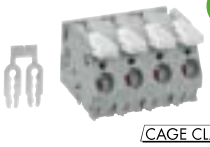
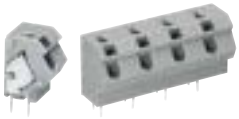
2706 Series (10)

CAGE CLAMP®
0.5 … 6 mm² / 20 … 10 AWG
Page 135

235 Series

PUSH WIRE®
0.5 … 2.5 mm² / 20 … 14 AWG "sol."
Page 217

(Ex) Ex e II approval
THR Through-Hole Reflow Soldering
SMT Surface-Mount Technology

10 mm/0.394 inch, 10.16 mm/0.4 inch		11,5 mm/0.453 inch 12,5 mm/0.492 inch	15 mm/0.59 inch	20 mm/0.787 inch
745 Series  CAGE CLAMP® 0.08 … 4 mm² / 28 … 12 AWG Page 40		745 Series  CAGE CLAMP® 0.08 … 4 mm² / 28 … 12 AWG Page 41	745 Series CAGE CLAMP® 0.2 … 6 mm² / 24 … 10 AWG Page 47	745 Series  CAGE CLAMP® 0.2 … 16 mm² / 24 … 6 AWG Page 53, 55
739 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 91	2616 Series  PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 211, 213	2604 Series PUSH-IN CAGE CLAMP® 0.2 … 4 mm² / 24 … 12 AWG Page 201, 202		
745 Series  CAGE CLAMP® 0.2 … 6 mm² / 24 … 10 AWG Page 49, 51	745 Series CAGE CLAMP® 0.2 … 16 mm² / 24 … 6 AWG Page 53, 55	745 Series CAGE CLAMP® 0.2 … 6 mm² / 24 … 10 AWG Page 47	745 Series  CAGE CLAMP® 0.2 … 16 mm² / 24 … 6 AWG Page 53, 55	
737 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 69, 73	2636 Series PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 159, 161	2624 Series  PUSH-IN CAGE CLAMP® 0.2 … 6 mm² / 24 … 10 AWG Page 149, 150		
256 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 113 … 121	257 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 123 … 131		2716 Series CAGE CLAMP® 1.5 … 16 mm² / 16 … 6 AWG Page 139	
2716 Series CAGE CLAMP® 1.5 … 16 mm² / 16 … 6 AWG Page 139	2716 Series CAGE CLAMP® 1.5 … 16 mm² / 16 … 6 AWG Page 141		2716 Series CAGE CLAMP® 1.5 … 16 mm² / 16 … 6 AWG Page 141	
2706 Series  CAGE CLAMP® 0.5 … 6 mm² / 20 … 10 AWG Page 137		2706 Series CAGE CLAMP® 0.5 … 6 mm² / 20 … 10 AWG Page 135		
254 Series  PUSH WIRE® 0.5 … 2.5 mm² / 20 … 12 AWG "sol." Page 227, 229	Feedthrough terminal strips, 741 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 819 … 825			

Only available in this pin spacing!

*AWG 12: THHN, THWN

MCS – MULTI CONNECTION SYSTEM
– Product Overview by Pin Spacing –

2.5 mm/0.098 inch MICRO*

Female connectors, 733 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 341

Female connectors with locking levers, 733 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 341

Male headers with solder pins, 733 Series

Page 345

Male headers with solder pins, 733 Series THR

Page 349

Male connectors 733 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 331

3.5 mm/0.138 inch, 3.81 mm/0.15 inch MINI*

Female connectors, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 361, 391

Female connectors with snap-in mounting feet, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 362, 392

Female connectors with push-buttons and mounting flanges, 2734 Series

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 14 AWG
Page 366, 395

Male headers with solder pins, 734 Series

Page 381, 407

Double-deck male headers with solder pins, 734 Series

Page 381, 407

Male connectors 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 357, 387

Male connectors with snap-in mounting feet, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 370, 400

Combi strips, 734 Series 3.5

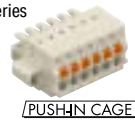
CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 373

Female connectors with locking levers, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 361, 391

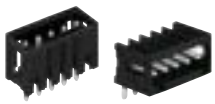
Female connectors with push-buttons, 2734 Series

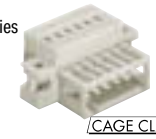
PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 14 AWG
Page 365, 395

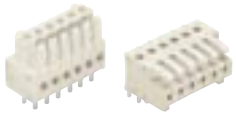
Female connectors with push-buttons and screw flanges, 2734 Series 3.5

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 14 AWG
Page 365

Male headers with solder pins and threaded flanges, 734 Series 3.5

Page 382

Male headers with solder pins, 734 Series THR

Page 387, 411

Male connectors with mounting flanges, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 357, 387

Female headers with solder pins, 734 Series

Page 377, 403

Combi strips with snap-in mounting feet, 734 Series 3.5

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 374

Female connectors with screw flanges, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 361

Female connectors with push-buttons and locking levers, 2734 Series

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 14 AWG
Page 365, 395

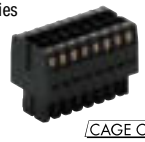
Male connectors with threaded flanges, 734 Series 3.5

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 357

Female headers with solder pins and locking levers, 734 Series

Page 377, 403

3.5 mm/0.138 inch MINI HD*

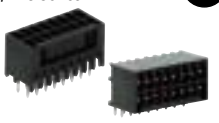
Female connectors, 713 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 16 AWG
Page 429

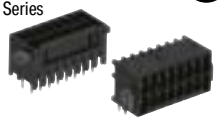
Female connectors with levers, 713 Series

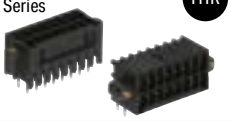
CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 16 AWG
Page 429

Female connectors with screw flanges, 713 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 16 AWG
Page 429

Male headers with solder pins, 713 Series THR

Page 431, (THR: Page 437)

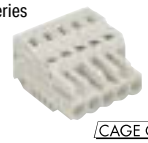
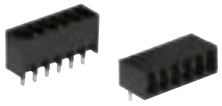
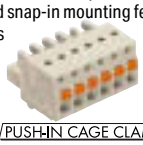
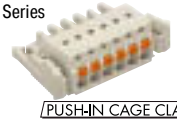
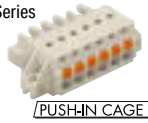
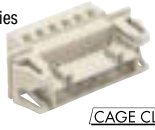
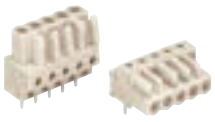
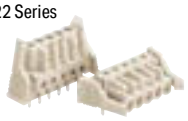
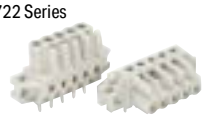
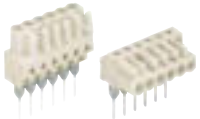
Male headers with solder pins and levers, 713 Series THR

Page 431, (THR: Page 437)

Male headers with solder pins and threaded flanges, 713 Series THR

Page 419 (THR: Page 427)

THR Through-Hole Reflow Soldering

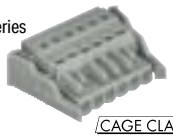
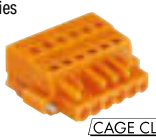
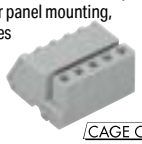
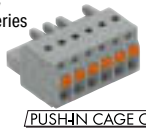
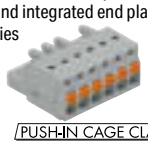
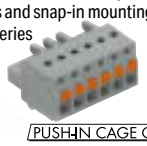
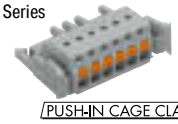
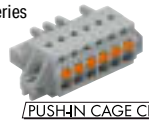
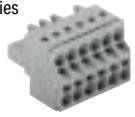
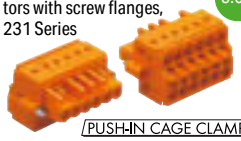
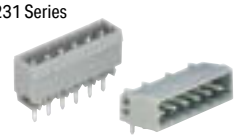
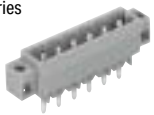
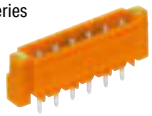
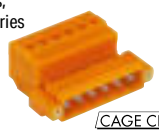
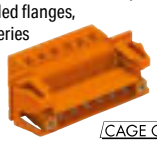
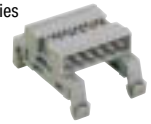
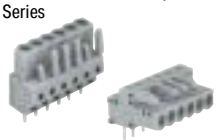
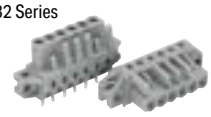
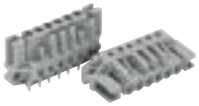
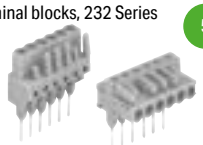
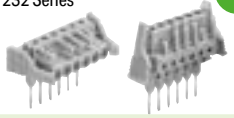
Only available in this pin spacing!

*100 % protected against mismating

3.5 mm/0.138 inch MINI SL	5 mm/0.197 inch MIDI*			
Female connectors, 714 Series PUSH-IN CAGE CLAMP®	Female connectors, 721 Series  CAGE CLAMP®	Female connectors with locking levers, 721 Series CAGE CLAMP®	Female connectors with mounting flanges, 721 Series CAGE CLAMP®	Female connectors with snap-in mounting feet, 721 Series CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 16 AWG Page 453	0.08 … 2.5 mm² / 28 … 12 AWG Page 463	0.08 … 2.5 mm² / 28 … 12 AWG Page 463	0.08 … 2.5 mm² / 28 … 12 AWG Page 463, 464	0.08 … 2.5 mm² / 28 … 12 AWG Page 464
Male headers with solder pins, 714 Series 	Angled female connectors, 722 Series CAGE CLAMP®	Female connectors with flanges for panel mounting, 721 Series CAGE CLAMP®	Female connectors with snap-in feet for panel mounting, 721 Series CAGE CLAMP®	
Page 455	0.08 … 2.5 mm² / 28 … 12 AWG Page 467	0.08 … 2.5 mm² / 28 … 12 AWG Page 469	0.08 … 2.5 mm² / 28 … 12 AWG Page 469	
	Female connectors with push-buttons, 2721 Series PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and snap-in mounting feet, 2721 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and locking levers, 2721 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and mounting flanges, 2721 Series  PUSH-IN CAGE CLAMP®
	0.2 … 2.5 mm² / 24 … 12 AWG Page 473	0.2 … 2.5 mm² / 24 … 12 AWG Page 474	0.2 … 2.5 mm² / 24 … 12 AWG Page 473	0.2 … 2.5 mm² / 24 … 12 AWG Page 473
	2-conductor female connectors, 721 Series PUSH-IN CAGE CLAMP®	2-conductor female connectors with locking levers, 721 Series PUSH-IN CAGE CLAMP®		
	0.2 … 2.5 mm² / 24 … 12 AWG Page 471	0.2 … 2.5 mm² / 24 … 12 AWG Page 471		
	Male headers with solder pins, 721 Series			
	Page 491 … 497			
	Male connectors, 721 Series CAGE CLAMP®	Male connectors with snap-in mounting feet, 721 Series CAGE CLAMP®	Male connectors with mounting flanges, 721 Series CAGE CLAMP®	Male connectors with snap-in flanges, 721 Series  CAGE CLAMP®
	0.08 … 2.5 mm² / 28 … 12 AWG Page 477, 481	0.08 … 2.5 mm² / 28 … 12 AWG Page 478, 482	0.08 … 2.5 mm² / 28 … 12* AWG Page 477, 481	0.08 … 2.5 mm² / 28 … 12 AWG Page 477, 481
	Female headers with solder pins, 722 Series 	Female headers with solder pins and locking levers, 722 Series 	Female headers with solder pins and mounting flanges, 722 Series 	Female headers with solder pins and spacers, 722 Series
	Page 485	Page 485	Page 487	Page 488
	Male connectors for rail-mount terminal blocks, 721 Series	Female connectors for rail-mount terminal blocks, 722 Series 	Female connectors with locking levers, for rail-mount terminal blocks, 722 Series	
	Page 503	Page 499	Page 499	

MCS – MULTI CONNECTION SYSTEM
– Product Overview by Pin Spacing –

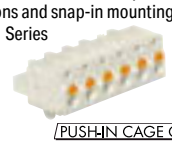
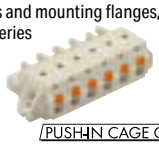
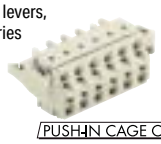
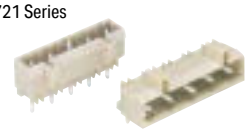
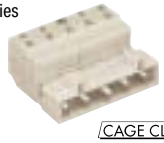
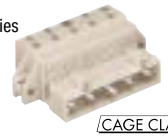
5 mm/0.197 inch, 5.08 mm/0.2 inch MIDI Classic

Female connectors, 231 Series CAGE CLAMP®	Female connectors with integrated end plate, 231 Series CAGE CLAMP®	Female connectors with snap-in mounting feet, 231 Series CAGE CLAMP®	Female connectors with locking levers, 231 Series  CAGE CLAMP®	Female connectors with mounting flanges, 231 Series CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12 AWG Page 561, 615	0.08 … 2.5 mm² / 28 … 12 AWG Page 561, 615	0.08 … 2.5 mm² / 28 … 12 AWG Page 563, 619	0.08 … 2.5 mm² / 28 … 12 AWG Page 562, 616	0.08 … 2.5 mm² / 28 … 12 AWG Page 562, 617
Angled female connectors, 232 Series CAGE CLAMP®	Female connectors with screw flanges, 231 Series 5.08  CAGE CLAMP®	Female connectors with flanges for panel mounting, 731 Series 5 CAGE CLAMP®	Female connectors with snap-in feet for panel mounting, 731 Series 5  CAGE CLAMP®	
0.08 … 2.5 mm² / 28 … 12 AWG Page 565, 621	0.08 … 2.5 mm² / 28 … 12 AWG Page 616	0.08 … 2.5 mm² / 28 … 12 AWG Page 567	0.08 … 2.5 mm² / 28 … 12 AWG Page 568	
Female connectors with push-buttons, 2231 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and integrated end plate, 2231 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and snap-in mounting feet, 2231 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and locking levers, 2231 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and mounting flanges, 2231 Series  PUSH-IN CAGE CLAMP®
0.2 … 2.5 mm² / 24 … 12 AWG Page 573, 627	0.2 … 2.5 mm² / 24 … 12 AWG Page 573, 627	0.2 … 2.5 mm² / 24 … 12 AWG Page 574, 628	0.2 … 2.5 mm² / 24 … 12 AWG Page 574, 627	0.2 … 2.5 mm² / 24 … 12 AWG Page 574, 628
Female connectors with push-buttons and screw flanges, 2231 Series 5.08 PUSH-IN CAGE CLAMP®	2-conductor female connectors, 231 Series  PUSH-IN CAGE CLAMP®	2-conductor female connectors with locking levers, 231 Series PUSH-IN CAGE CLAMP®	2-conductor female connectors with screw flanges, 231 Series 5.08  PUSH-IN CAGE CLAMP®	
0.2 … 2.5 mm² / 24 … 12 AWG Page 628	0.2 … 2.5 mm² / 24 … 12 AWG Page 571, 623	0.2 … 2.5 mm² / 24 … 12 AWG Page 571, 623	0.2 … 2.5 mm² / 24 … 12 AWG Page 623	
Male headers with solder pins, 231 Series 	Male headers with solder pins and mounting flanges, 231 Series 5 	Male headers with solder pins and threaded flanges, 231 Series 5.08 	Male headers for double-deck assembly, 232 Series 	Male headers with solder pins, 231 Series THR 5
Page 587, 641	Page 587	Page 641	Page 591, 645	Page 599 … 604
Male connectors, 231 Series CAGE CLAMP®	Male connectors with snap-in mounting feet, 231 Series CAGE CLAMP®	Male connectors with mounting flanges, 231 Series CAGE CLAMP®	Male connectors with snap-in flanges, 231 Series CAGE CLAMP®	Male connectors with threaded flanges, 231 Series 5.08  CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12 AWG Page 577, 631	0.08 … 2.5 mm² / 28 … 12 AWG Page 567, 633	0.08 … 2.5 mm² / 28 … 12 AWG Page 579, 631	0.08 … 2.5 mm² / 28 … 12 AWG Page 578, 632	0.08 … 2.5 mm² / 28 … 12 AWG Page 631
Male connectors with snap-in and threaded flanges, 231 Series 5.08  CAGE CLAMP®	Double-pin male connectors for DIN-35 rail mounting, 232 Series 		Female headers with solder pins, 232 Series 	Female headers with solder pins and locking levers, 232 Series
0.08 … 2.5 mm² / 28 … 12 AWG Page 633	Page 607, 651		Page 581, 635	Page 581, 635
Female headers with solder pins and mounting flanges, 232 Series 	Female headers with solder pins and spacers, 232 Series 	Male connectors for rail-mount terminal blocks, 231 Series 5 	Female connectors for rail-mount terminal blocks, 232 Series 5 	Female connectors with locking levers, for rail-mount terminal blocks, 232 Series 5 
Page 583, 637	Page 584, 638	Page 613	Page 609	Page 609

THR Through-Hole Reflow Soldering

5 Only available in this pin spacing!

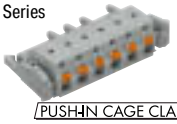
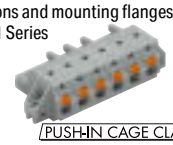
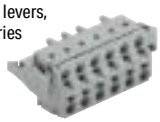
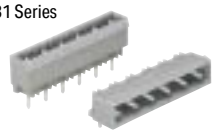
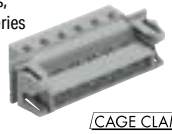
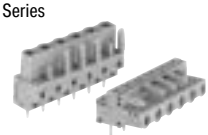
7.5 mm/0.295 inch MIDI*

Female connectors, 721 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 505	Female connectors with snap-in mounting feet, 721 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 506	Female connectors with locking levers, 721 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 505
Female connectors with mounting flanges, 721 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 505	Female connectors with flanges for panel mounting, 721 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 509	Female connectors with snap-in feet for panel mounting, 721 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 509
Female connectors with push-buttons, 2721 Series PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 513	Female connectors with push-buttons and snap-in mounting feet, 2721 Series  PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 514	Female connectors with push-buttons and locking levers, 2721 Series PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 513
Female connectors with push-buttons and mounting flanges, 2721 Series  PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 513	2-conductor female connectors, 721 Series PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 511	2-conductor female connectors with locking levers, 721 Series  PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 511
Male headers with solder pins, 721 Series  Page 531 … 537		
Male connectors, 723 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 517, 521	Male connectors with snap-in mounting feet, 723 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 518, 522	Male connectors with mounting flanges, 723 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 517, 521
Male connectors with snap-in flanges, 723 Series CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 517, 521		Female headers with solder pins, 722 Series Page 525
Female headers with solder pins and locking levers, 722 Series Page 525	Female headers with solder pins and mounting flanges, 722 Series Page 527	Female headers with solder pins and spacers, 722 Series Page 528

*100 % protected against mismating

MCS – MULTI CONNECTION SYSTEM
– Product Overview by Pin Spacing –

7.5 mm/0.295 inch, 7.62 mm/0.3 inch MIDI Classic

Female connectors, 231 Series CAGE CLAMP®	Female connectors with snap-in mounting feet, 231 Series CAGE CLAMP®	Female connectors with locking levers, 231 Series CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12 AWG Page 653, 697	0.08 … 2.5 mm² / 28 … 12 AWG Page 654, 698	0.08 … 2.5 mm² / 28 … 12 AWG Page 653, 697
Female connectors with mounting flanges, 231 Series CAGE CLAMP®	Angled female connectors, 732 Series CAGE CLAMP®	Female connectors with flanges or snap-in feet for panel mounting, 731 Series 7.5 CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12 AWG Page 653, 697	0.08 … 2.5 mm² / 28 … 12 AWG Page 657, 701	0.08 … 2.5 mm² / 28 … 12 AWG Page 659
Female connectors with push-buttons, 2231 Series PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and snap-in mounting feet, 2231 Series PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and locking levers, 2231 Series  PUSH-IN CAGE CLAMP®
0.2 … 2.5 mm² / 24 … 12 AWG Page 665, 705	0.2 … 2.5 mm² / 24 … 12 AWG Page 667, 706	0.2 … 2.5 mm² / 24 … 12 AWG Page 665, 705
Female connectors with push-buttons and mounting flanges, 2231 Series  PUSH-IN CAGE CLAMP®	2-conductor female connectors, 231 Series PUSH-IN CAGE CLAMP®	2-conductor female connectors with locking levers, 231 Series  PUSH-IN CAGE CLAMP®
0.2 … 2.5 mm² / 24 … 12 AWG Page 665, 705	0.2 … 2.5 mm² / 24 … 12 AWG Page 663, 703	0.2 … 2.5 mm² / 24 … 12 AWG Page 664, 703
Male headers with solder pins, 231 Series 	Male headers with solder pins and mounting flanges, 231 Series 7.5	Male headers with solder pins, 231 Series THR 7.5
Page 679, 719	Page 679	Page 687 … 692
Male connectors, 731 Series CAGE CLAMP®	Male connectors with snap-in mounting feet, 731 Series CAGE CLAMP®	Male connectors with mounting flanges, 731 Series CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12 AWG Page 669, 709	0.08 … 2.5 mm² / 28 … 12 AWG Page 670, 711	0.08 … 2.5 mm² / 28 … 12 AWG Page 669, 709
Male connectors with snap-in flanges, 731 Series  CAGE CLAMP®	Double-pin male connectors for DIN-35 rail mounting, 232 Series 	Female headers with solder pins, 232 Series 
0.08 … 2.5 mm² / 28 … 12 AWG Page 670, 710	Page 695, 723	Page 673, 713
Female headers with solder pins and locking levers, 232 Series 	Female headers with solder pins and mounting flanges, 232 Series 	Female headers with solder pins and spacers, 232 Series
Page 673, 713	Page 675, 715	Page 676, 716

THR Through-Hole Reflow Soldering

Only available in this pin spacing!

7.62 mm/0.3 inch MAXI 6*

Female connectors, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 753	Female connectors with levers, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 755
Female connectors with locking levers, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 753	Female connectors with levers and locking levers, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 755, 756
Female connectors with screw flanges, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 753	Female connectors with levers, for DIN-35 rail mounting, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 756
Female headers with solder pins, 831 Series Page 763	Female connectors with levers and locking levers, for DIN-35 rail mounting, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 756
Male headers with solder pins, 831 Series Page 765	Male headers with solder pins and threaded flanges, 831 Series Page 766
Male connectors, 831 Series PUSH-IN CAGE CLAMP® 0,5 … 10 mm² / 20 … 8 AWG Page 759	Male connectors with levers, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 761
Male connectors with threaded flanges, 231 Series PUSH-IN CAGE CLAMP® 0,5 … 10 mm² / 20 … 8 AWG Page 743	Male connectors with levers, for DIN-35 rail mounting, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 761
Male connectors for DIN-35 rail mounting, 831 Series PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 743	

10.16 mm/0.4 inch MAXI 16*

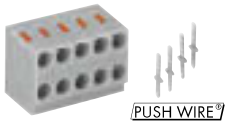
Male connectors with levers, 832 Series PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 769	Female connectors with levers and locking levers, 832 Series PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 769
Female connectors with levers and center locking lever, 832 Series PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 769	Female connectors with levers and center locking lever with strain relief plate 832 Series PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 770
Female connectors with levers, for DIN-35 rail mounting, 832 Series PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 770	Female connectors with levers and locking levers, for DIN-35 rail mounting, 832 Series PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 770
Male headers with solder pins, 832 Series Page 775	
Male connectors with levers, 832 Series PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 773	Male connectors with levers, for DIN-35 rail mounting, 832 Series PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 773

*100 % protected against mismating

Connectors for:

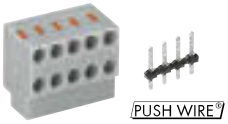
3.5 mm/0.138 inch

2-conductor compact PCB connectors, 252 Series



2 x 0.4 … 0.8 mm Ø / 2 x 26 … 20 AWG
Page 791 "sol."

2-conductor compact PCB connectors, 252 Series



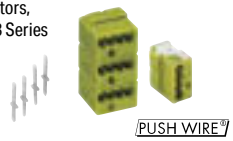
2 x 0.4 … 0.8 mm Ø / 2 x 26 … 20 AWG
Page 792 "sol."

5 mm/0.197 inch, 5.75 mm/0.23 inch

2-conductor PCB connector strips (pinstrip pluggable), 806 Series

2 x 0.2 … 1.5 mm² / 2 x 24 … 16 AWG
Page 795

4-conductor modular PCB connectors, 243 Series



4 x 0.4 … 0.8 mm Ø / 4 x 24 … 18 AWG
Page 797 "sol."

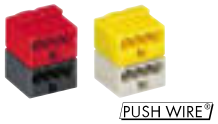
Specialty Applications

Wire-tap branch connectors, 730 Series

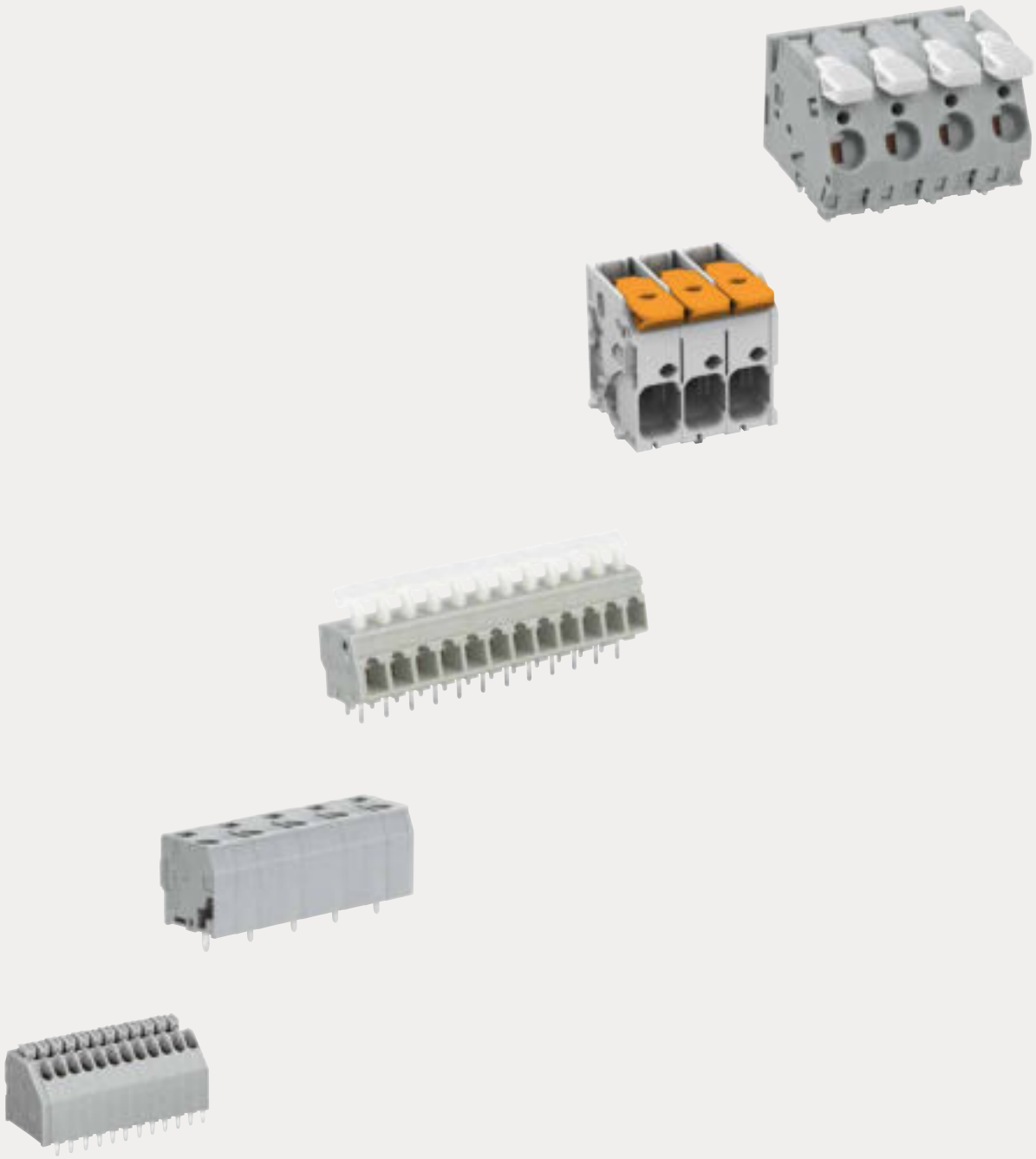
0.75 … 1.5 mm² / 18 … 16 AWG
Page 839

KNX/EIB Applications

Connectors for bus coupler units, 243 Series



4 x 0.6 … 0.8 mm Ø / 22 … 20 AWG
Page 847 "sol."



WAGO PCB Terminal Blocks

WAGO PCB Terminal Blocks

	Nominal Cross-Section	Series	Page
PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	0.5 mm²	233	20
	2.5 mm²	236	22
	4; 6; 16 mm²	745	36
	2.5 mm²	736	58
	2.5 mm²	737	66
	2.5 mm²	738	74
	1.5; 2.5 mm²	739	78
	2.5 mm²	740	92
PCB Terminal Blocks ▸ Actuation type: Push-button, Locking slide, Lever ▸ CAGE CLAMP®	0.5 mm²	218	96
	0.5 mm²	233	100
	0.5 mm²	234	102
	2.5 mm²	255	106
	2.5 mm²	256	112
	2.5 mm²	257	122
	6 mm²	2706	134
	16 mm²	2716	140
2-Conductor PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	1.5 mm²	816	142
	10 mm²	746	144
PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	6 mm²	2624	146
	10 mm²	2626	152
	16 mm²	2636	158
PCB Terminal Blocks ▸ Actuation type: Push-button, Lever ▸ Push-in CAGE CLAMP®	0.5; 1.5 mm²	250	166
	0.75; 1.5 mm²	235	180
	1.5 mm²	805	190
	2.5 mm²	804	196
	4 mm²	2604	198
	10 mm²	2606	204
	16 mm²	2616	210
PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ PUSH WIRE®	1.5; 2.5 mm²	235	216
	2.5 mm²	254	226
	1.5 mm²	744	230
PCB Terminal Blocks ▸ Actuation type: Push-button ▸ PUSH WIRE®	1.5 mm²	735	234
2-conductor PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ PUSH WIRE®	1.5 mm²	253	242
PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ PUSH WIRE® ▸ IDC-Anschluss	1.5 mm²	251	
Modular PCB Disconnect/Test Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	742	246
Modular PCB Fuse Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	742	254
Accessories for PCB Terminal Blocks			258
Accessories and Tools			861

CAGE CLAMP®

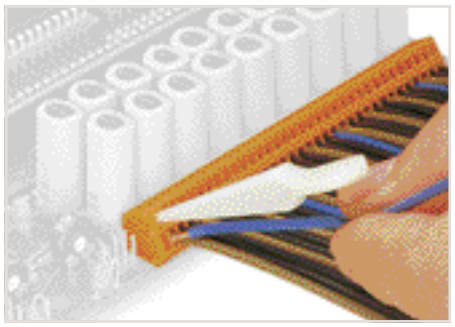
233 and 236 Series
Description and Installation

1

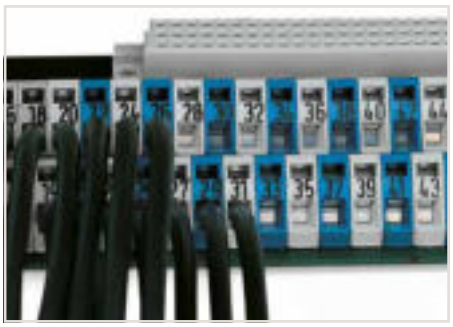
Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation parallel to conductor entry.

Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation perpendicular to conductor entry.

Inserting a conductor via operating tool.



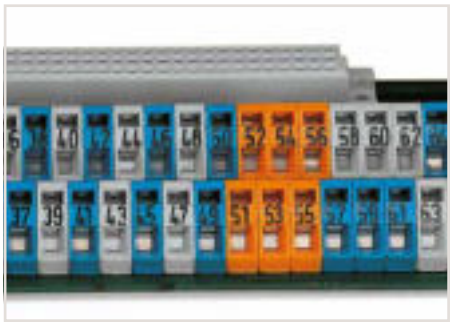
Inserting a conductor via 233-332 Operating Tool. Operation is performed parallel to conductor entry.



PCB Terminal Strips placed behind each other save space – staggering them by half the pin spacing simplifies subsequent wiring of the first row.

Combining PCB terminal blocks with different pin spacing.

Labeling with self-adhesive marking strips.

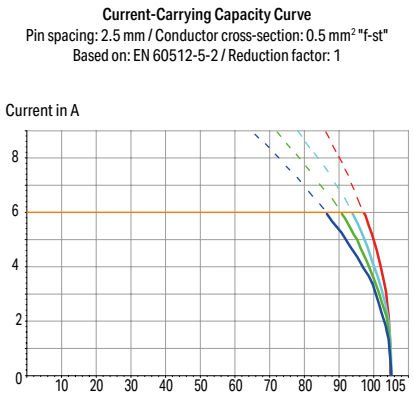


Labeling via factory direct marking.

PCB terminal block ▸ 233 Series
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 0.5 mm²

1

- Compact terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Double solder pins for high mechanical stability
- Custom color combinations



Electrical Data			
Pin spacing	**2.54 mm / 0.1 inch**	**2.5 mm / 0.098 inch**	
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-
Approbations per	CSA		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	30 °
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 mm²
Note (conductor cross-section)	Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Tool	Page 870

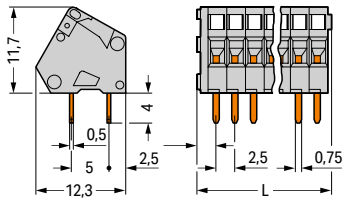
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 233 Series
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 0.5 mm²

Pin spacing: 2.5 mm / 0.098 inch ▸ Color: gray

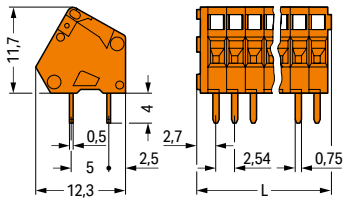
Pole No.	Item No.	PU (SPU)
2	233-102	600 (100)
3	233-103	500 (125)
4	233-104	400 (100)
5	233-105	340 (85)
6	233-106	280 (70)
7	233-107	240 (60)
8	233-108	220 (55)
9	233-109	200 (50)
10	233-110	180 (45)
12	233-112	140 (35)



L = (pole no. x pin spacing) + 2.3 mm

Pin spacing: 2.54 mm / 0.1 inch ▸ Color: orange

Pole No.	Item No.	PU (SPU)
2	233-402	600 (100)
3	233-403	500 (125)
4	233-404	400 (100)
5	233-405	340 (85)
6	233-406	280 (70)
7	233-407	240 (60)
8	233-408	220 (55)
9	233-409	200 (50)
10	233-410	180 (45)
12	233-412	140 (35)



L = (pole no. x pin spacing) + 2.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

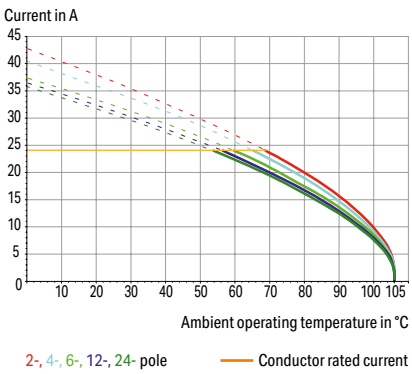
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Stackable PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch

1

- Modular PCB terminal blocks with CAGE CLAMP® connection, screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- For custom PCB terminal strip assemblies
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

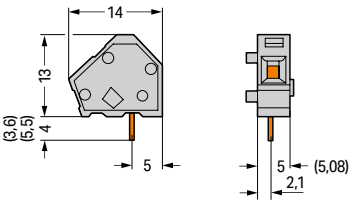
Stackable PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch

Number of solder pins per potential: 1

236-101

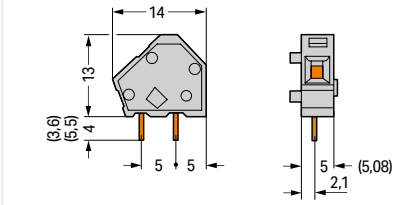
Color	Item No.	PU (SPU)
gray	236-101	600 (100)
blue	236-714	600 (100)
orange	236-716	600 (100)
black	236-854	600 (100)
yellow	236-711	600 (100)
light gray	236-713	600 (100)
green	236-715	600 (100)
light green	236-717	600 (100)
violet	236-894	600 (100)
brown	236-884	600 (100)
red	236-710	600 (100)
dark gray	236-712	600 (100)



Number of solder pins per potential: 2

236-401

Color	Item No.	PU (SPU)
gray	236-401	600 (100)
blue	236-744	600 (100)
orange	236-746	600 (100)
black	236-851	600 (100)
yellow	236-741	600 (100)
light gray	236-743	600 (100)
green	236-745	600 (100)
light green	236-747	600 (100)
violet	236-891	600 (100)
brown	236-881	600 (100)
red	236-740	600 (100)
dark gray	236-742	600 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	236-100	2000 (100)
green	236-500	2000 (100)
light green	236-700	2000 (100)
red	236-800	2000 (100)

End plate; Width: 1 mm; Snap-on type

Color	Item No.	PU (SPU)
blue	236-400	2000 (100)
orange	236-600	2000 (100)
black	236-850	2000 (100)
light gray	236-300	2000 (100)
dark gray	236-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

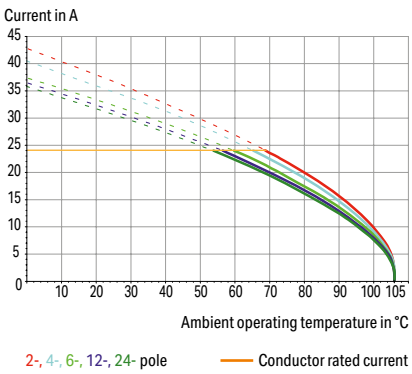
- Versions for Ex e II and Ex i
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

Stackable PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

1

- Modular PCB terminal blocks with CAGE CLAMP® connection, screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- For custom PCB terminal strip assemblies
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	7.5/7.62 mm / 0.295/0.3 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	400 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

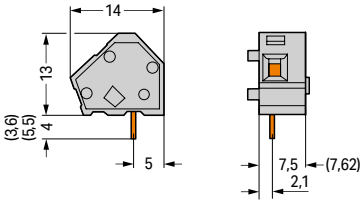
Stackable PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

Number of solder pins per potential: 1

236-201

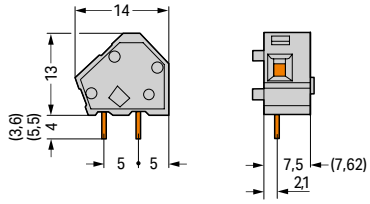
Color	Item No.	PU (SPU)
gray	236-201	400 (100)
blue	236-724	400 (100)
orange	236-726	400 (100)
black	236-855	400 (100)
light gray	236-723	400 (100)
green	236-725	400 (100)
light green	236-727	400 (100)
brown	236-885	400 (100)
dark gray	236-722	400 (100)



Number of solder pins per potential: 2

236-501

Color	Item No.	PU (SPU)
gray	236-501	400 (100)
blue	236-754	400 (100)
orange	236-756	400 (100)
black	236-852	400 (100)
light gray	236-753	400 (100)
green	236-755	400 (100)
light green	236-757	400 (100)
brown	236-882	400 (100)
dark gray	236-752	400 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	236-100	2000 (100)
green	236-500	2000 (100)
light green	236-700	2000 (100)
red	236-800	2000 (100)

End plate; Width: 1 mm; Snap-on type

Color	Item No.	PU (SPU)
blue	236-400	2000 (100)
orange	236-600	2000 (100)
black	236-850	2000 (100)
light gray	236-300	2000 (100)
dark gray	236-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

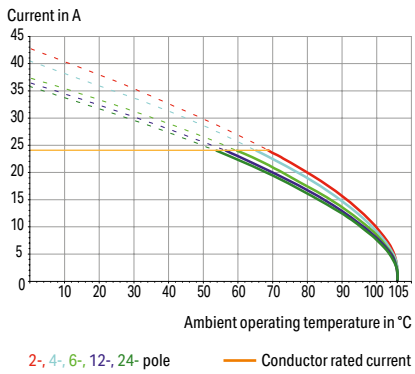
- Versions for Ex e II and Ex i
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

Stackable PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 10/10.16 mm / 0.394/0.4 inch

1

- Modular PCB terminal blocks with CAGE CLAMP® connection, screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- For custom PCB terminal strip assemblies
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	630 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 866
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

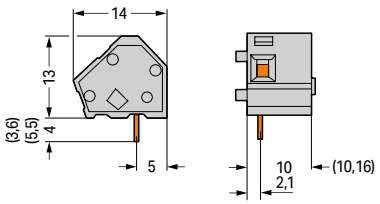
Stackable PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Number of solder pins per potential: 1

236-301

Color	Item No.	PU (SPU)
gray	236-301	300 (100)
blue	236-734	300 (100)
orange	236-736	300 (100)
black	236-856	300 (100)
light gray	236-733	300 (100)
green	236-735	300 (100)
light green	236-737	300 (100)
dark gray	236-732	300 (100)



Number of solder pins per potential: 2

236-601

Color	Item No.	PU (SPU)
gray	236-601	300 (100)
blue	236-764	300 (100)
orange	236-766	300 (100)
black	236-853	300 (100)
light gray	236-763	300 (100)
green	236-765	300 (100)
light green	236-767	300 (100)
dark gray	236-762	300 (100)

Accessories; for all products on this page

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	236-100	2000 (100)
green	236-500	2000 (100)
light green	236-700	2000 (100)
red	236-800	2000 (100)

End plate; Width: 1 mm; Snap-on type

Color	Item No.	PU (SPU)
blue	236-400	2000 (100)
orange	236-600	2000 (100)
black	236-850	2000 (100)
light gray	236-300	2000 (100)
dark gray	236-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

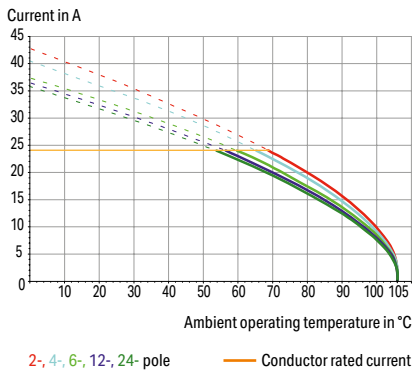
- Versions for Ex e II and Ex i
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

1

- PCB terminal strips with CAGE CLAMP® connection, screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

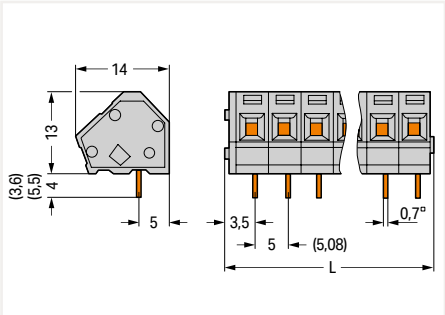
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870
Commoning strips	Page 262
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

Number of solder pins per potential: 1

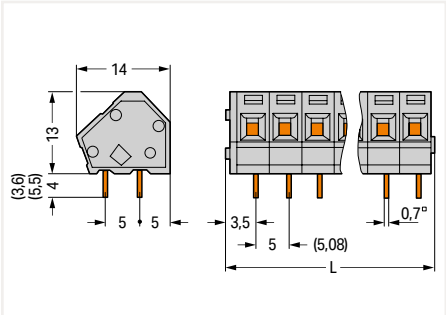
Pole No.	Item No.	PU (SPU)
2	236-102	420 (105)
3	236-103	280 (70)
4	236-104	220 (55)
6	236-106	140 (35)
8	236-108	100 (25)
12	236-112	80 (20)
16	236-116	60 (15)
24	236-124	40 (10)
36	236-136	20 (5)
48	236-148	20 (5)



L = (pole no. x pin spacing) + 2.3 mm

Number of solder pins per potential: 2

Pole No.	Item No.	PU (SPU)
2	236-402	420 (105)
3	236-403	280 (70)
4	236-404	220 (55)
6	236-406	140 (35)
8	236-408	100 (25)
12	236-412	80 (20)
16	236-416	60 (15)
24	236-424	40 (10)
36	236-436	20 (5)
48	236-448	20 (5)



L = (pole no. x pin spacing) + 2.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

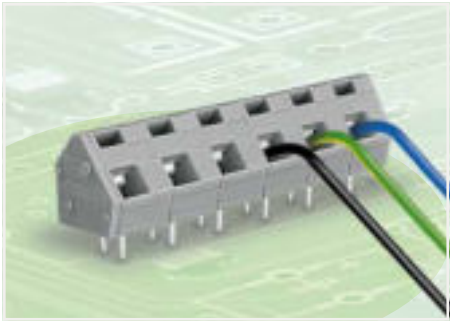
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

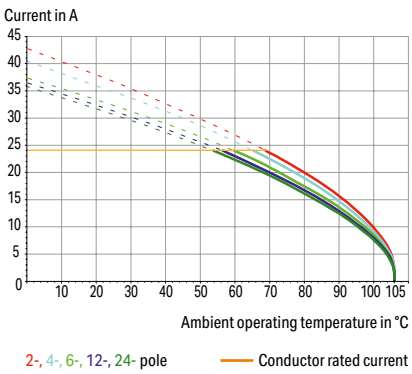
PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch ▸ Color: gray

1



- PCB terminal strips with CAGE CLAMP® connection, screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	7.5/7.62 mm / 0.295/0.3 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	400 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

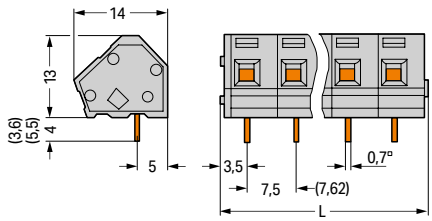
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870
Commoning strips	Page 262
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch ▸ Color: gray

Number of solder pins per potential: 1

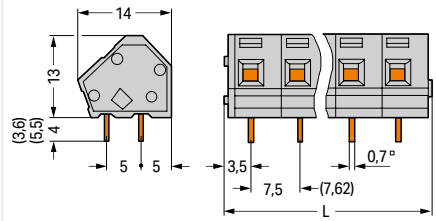
Pole No.	Item No.	PU (SPU)
2	236-202	280 (70)
3	236-203	200 (50)
4	236-204	140 (35)
6	236-206	100 (25)
8	236-208	80 (20)
12	236-212	40 (10)
16	236-216	40 (10)
24	236-224	20 (5)



L = (pole no. x pin spacing) + 2.3 mm

Number of solder pins per potential: 2

Pole No.	Item No.	PU (SPU)
2	236-502	280 (70)
3	236-503	200 (50)
4	236-504	140 (35)
6	236-506	100 (25)
8	236-508	80 (20)
12	236-512	40 (10)
16	236-516	40 (10)
24	236-524	20 (5)



L = (pole no. x pin spacing) + 2.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

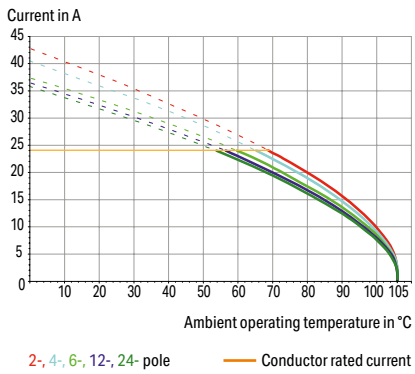
- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 10/10.16 mm / 0.394/0.4 inch ▸ Color: gray

1

- PCB terminal strips with CAGE CLAMP® connection, screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	630 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

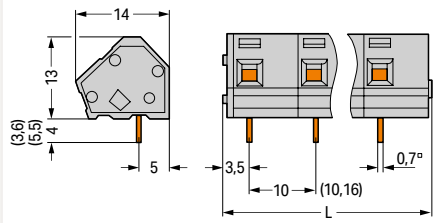
Ferrule	Page 879
Marking	Page 866
Tool	Page 870
Commoning strips	Page 262
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 10/10.16 mm / 0.394/0.4 inch ▸ Color: gray

Number of solder pins per potential: 1

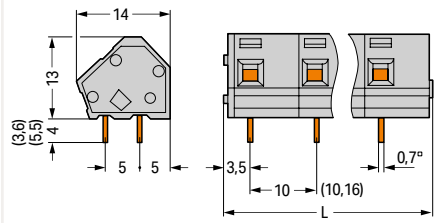
Pole No.	Item No.	PU (SPU)
2	236-302	200 (50)
3	236-303	140 (35)
4	236-304	100 (25)
6	236-306	80 (20)
8	236-308	60 (15)
12	236-312	40 (10)
16	236-316	20 (5)
24	236-324	20 (5)



L = (pole no. x pin spacing) + 2.3 mm

Number of solder pins per potential: 2

Pole No.	Item No.	PU (SPU)
2	236-602	200 (50)
3	236-603	140 (35)
4	236-604	100 (25)
6	236-606	80 (20)
8	236-608	60 (15)
12	236-612	40 (10)
16	236-616	20 (5)
24	236-624	20 (5)



L = (pole no. x pin spacing) + 2.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

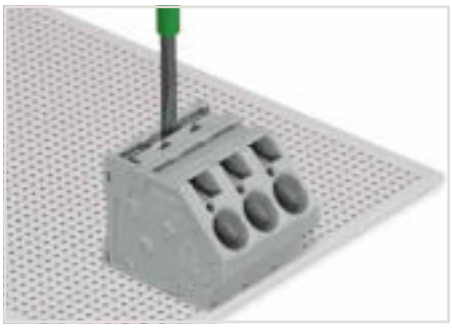
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

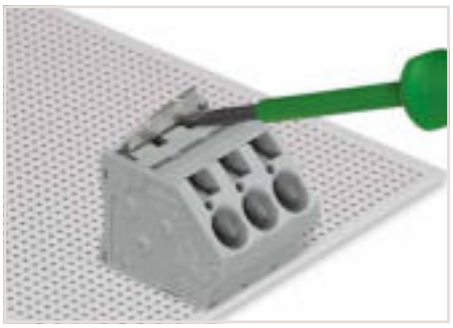
CAGE CLAMP®

745 Series
Description and Installation

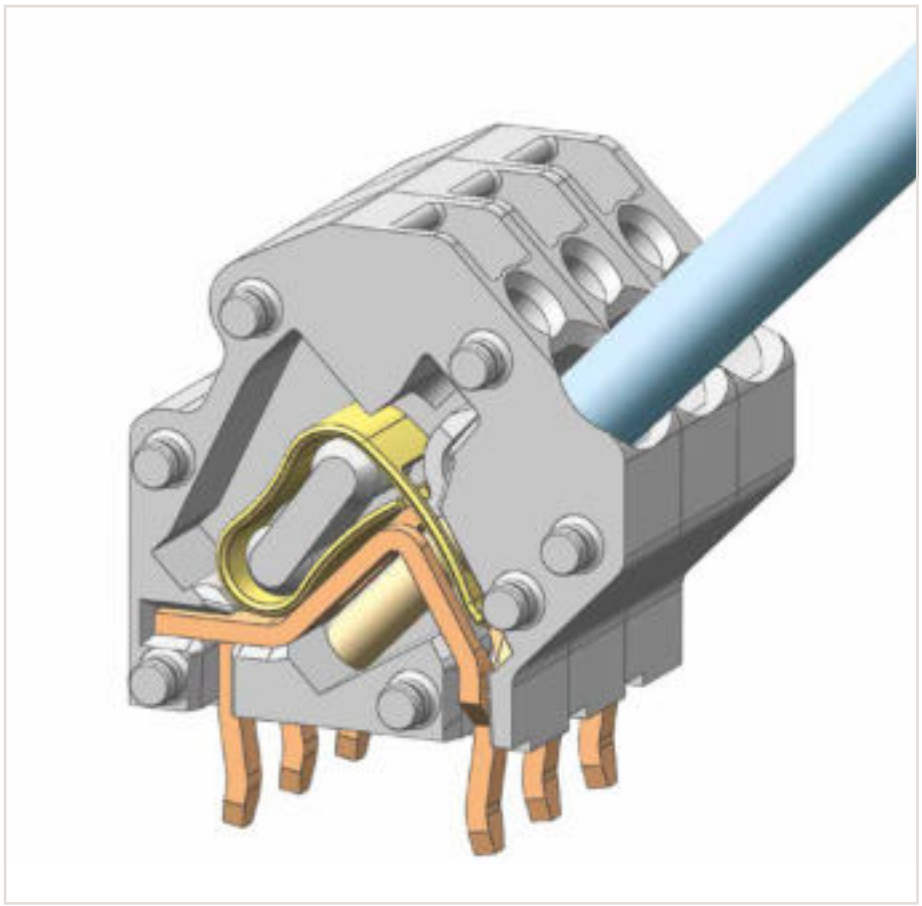
Inserting/removing a conductor via 5.5 mm screwdriver – 745 Series, 16 mm².



To insert a comb-style jumper bar, push it down using a screwdriver until it hits the backstop – 745 Series.



To remove the comb-style jumper bar, lift it up using a screwdriver – 745 Series.



745 Series

Marking via miniature WSB and WMB markers or factory direct marking – 745 Series.

Testing with test plug – 745 Series.

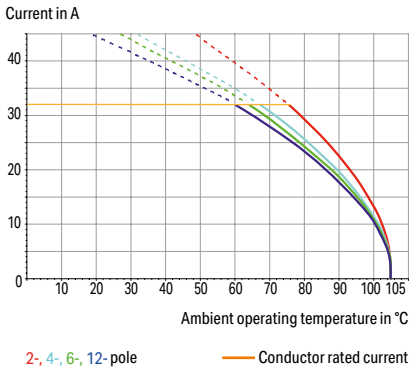
Stackable PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Pin spacing: 5 mm / 0.197 inch

1

- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® for custom PCB terminal strip assemblies
- Versions with Ex approval
- Spacers for higher voltage applications
- Double solder pins for high mechanical stability
- Space-efficient configuration of terminal strips placed behind each other
- Integrated testing tap

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 4 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	32 A	32 A	32 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter with tolerance	1.5 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

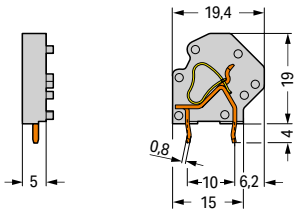
For approvals and corresponding ratings, visit www.wago.com

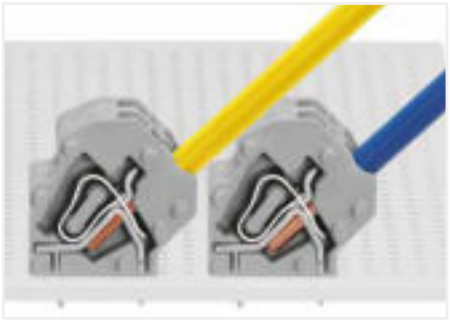
Stackable PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Pin spacing: 5 mm / 0.197 inch

745-3801

Color	Item No.	PU (SPU)
gray	745-3801	200 (50)
blue	745-3804	200 (50)
light gray	745-3803	200 (50)
light green	745-3808	200 (50)





Saving space: two PCB terminal strips arranged in a row

Inserting a conductor via 3.5 mm screwdriver.

Testing with 2 mm Ø test plug.

Accessories; for all products on this page

End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	745-3100	1000 (100)

Intermediate plate; Extends pin spacing; Width: 2.5 mm / 0.098 inch

Color	Item No.	PU (SPU)
gray	745-3138	200 (50)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Versions for Ex e II and Ex i
- Other colors

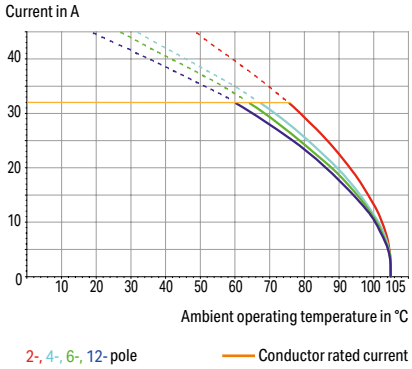
PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Color: gray

1

- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Space-saving configuration of terminal strips when placed behind each other
- Custom color combinations
- Double solder pins for high mechanical stability
- Integrated testing tap

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 4 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	**5 mm / 0.197 inch**			**7.5 mm / 0.295 inch**			**10 mm / 0.394 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	800 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	300 V	600 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	5 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	300 V	600 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	5 A

Electrical Data			
Pin spacing	**12.5 mm / 0.492 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	32 A	32 A	32 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	20 A	20 A	-
Approbations per	CSA		
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	20 A	20 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▶ 745 Series
CAGE CLAMP® ▶ Actuation type: Operating tool ▶ 4 mm² ▶ Color: gray

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter with tolerance	1.5 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

PCB terminal block ▶ 745 Series

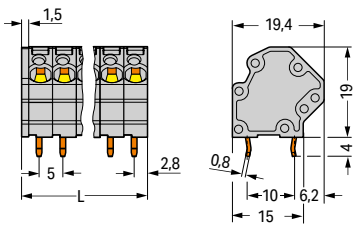
CAGE CLAMP® ▶ Actuation type: Operating tool ▶ 4 mm² ▶ Color: gray

1

Pin spacing: 5 mm / 0.197 inch

745-3104

Pole No.	Item No.	PU
2	745-3102	276
3	745-3103	192
4	745-3104	144
5	745-3105	120
6	745-3106	96
7	745-3107	84
8	745-3108	72
9	745-3109	60
10	745-3110	60
11	745-3111	48
12	745-3112	48

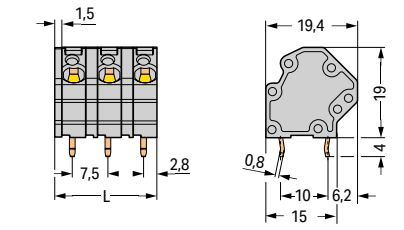


L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 7.5 mm / 0.295 inch

745-3154

Pole No.	Item No.	PU
2	745-3152	228
3	745-3153	132
4	745-3154	108
5	745-3155	84
6	745-3156	72
7	745-3157	60
8	745-3158	48
9	745-3159	48
10	745-3160	36
11	745-3161	30
12	745-3162	30

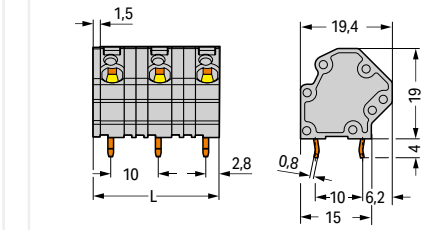


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

Pin spacing: 10 mm / 0.394 inch

745-3204

Pole No.	Item No.	PU (SPU)
2	745-3202	192
3	745-3203	120
4	745-3204	84
5	745-3205	60
6	745-3206	48
7	745-3207	48
8	745-3208	36
9	745-3209	36
10	745-3210	24
11	745-3211	12
12	745-3212	24 (12)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

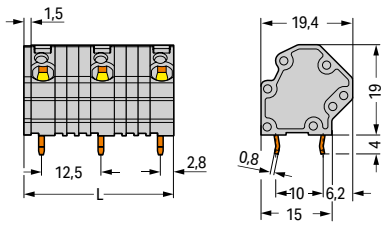
PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Color: gray

Pin spacing: 12.5 mm / 0.492 inch

745-3254

Pole No.	Item No.	PU (SPU)
2	745-3252	168
3	745-3253	96
4	745-3254	72
5	745-3255	40
6	745-3256	36
7	745-3257	36
8	745-3258	24 (12)
9	745-3259	24
10	745-3260	24
11	745-3261	12
12	745-3262	12



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

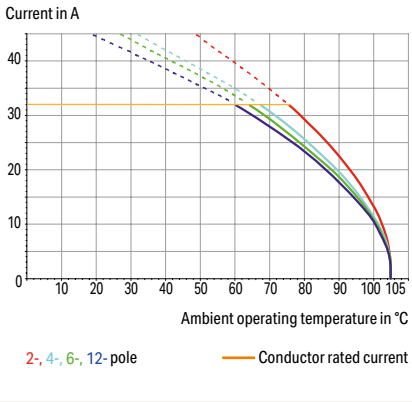
Stackable PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Number of jumper slots: 1

1

- Modular terminal blocks with screwdriver-actuated CAGE CLAMP® for custom terminal strip assemblies
- Versions with Ex approval
- Common and distribute potentials via comb-style jumper bars
- Double solder pins for high mechanical stability
- Integrated testing tap
- Marker slot for Mini-WSB markers

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 4 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5 mm / 0.197 inch			7.5 mm / 0.295 inch			10 mm / 0.394 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter with tolerance	1.5 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Jumper	Page 259
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

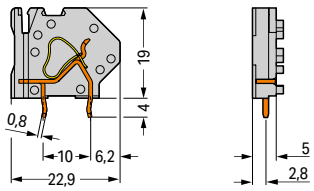
Stackable PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Number of jumper slots: 1

Pin spacing: 5 mm / 0.197 inch

745-801

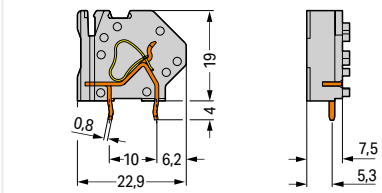
Color	Item No.	PU (SPU)
gray	745-801	200 (50)
blue	745-804	200 (50)
light gray	745-803	200 (50)
green-yellow	745-807	200 (50)
light green	745-808	200 (50)



Pin spacing: 7.5 mm / 0.295 inch

745-811

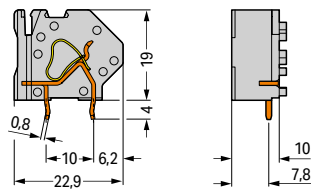
Color	Item No.	PU (SPU)
gray	745-811	200 (50)
blue	745-814	200 (50)
light gray	745-813	200 (50)
green-yellow	745-817	200 (50)
light green	745-818	200 (50)



Pin spacing: 10 mm / 0.394 inch

745-821

Color	Item No.	PU (SPU)
gray	745-821	200 (50)
blue	745-824	200 (50)
light gray	745-823	200 (50)
green-yellow	745-827	200 (50)
light green	745-828	200 (50)



Accessories; for all products on this page

End plate; Width: 1.5 mm; Snap-on type

Color	Item No.	PU (SPU)
gray	745-100	1000 (100)

End plate; Width: 7.9 mm; Screw mount

Color	Item No.	PU (SPU)
gray	745-140	500 (100)

End plate; Width: 7.3 mm; Screw mount

Color	Item No.	PU (SPU)
gray	745-145	500 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

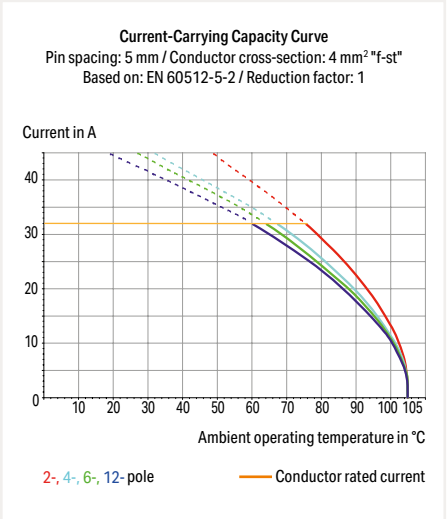
- Versions for Ex e II and Ex i
- Other colors

PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Number of jumper slots: 1 ▸ Color: gray

1

- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Versions with Ex approval
- Common and distribute potentials via comb-style jumper bars
- Double solder pins for high mechanical stability
- Custom color combinations
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data									
Pin spacing	**5 mm / 0.197 inch**			**7.5 mm / 0.295 inch**			**10 mm / 0.394 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter with tolerance	1.5 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Jumper	Page 259
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

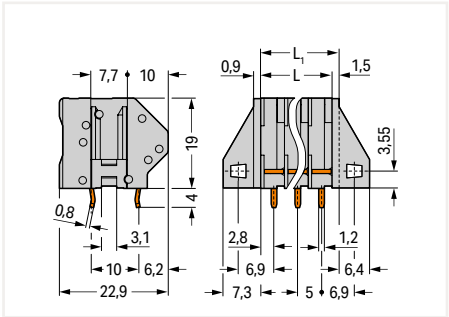
PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Number of jumper slots: 1 ▸ Color: gray

Pin spacing: 5 mm / 0.197 inch

745-112

Pole No.	Item No.	PU
2	745-102	230
3	745-103	160
4	745-104	120
5	745-105	100
6	745-106	80
7	745-107	70
8	745-108	60
9	745-109	50
10	745-110	50
12	745-112	40

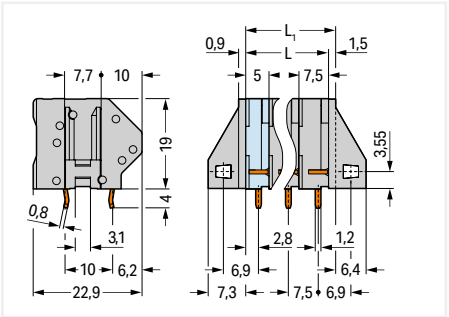


L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L +1.5 mm ≙ version **without** mounting flange

Pin spacing: 7.5 mm / 0.295 inch

745-158

Pole No.	Item No.	PU
2	745-152	180
3	745-153	120
4	745-154	90
5	745-155	70
6	745-156	60
7	745-157	50
8	745-158	40
9	745-159	40
10	745-160	30
12	745-162	30

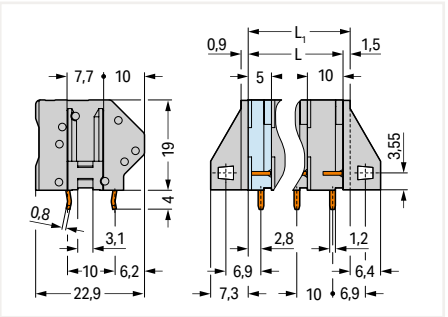


L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L +1.5 mm ≙ version **without** mounting flange

Pin spacing: 10 mm / 0.394 inch

745-206

Pole No.	Item No.	PU
2	745-202	160
3	745-203	100
4	745-204	70
5	745-205	50
6	745-206	40
7	745-207	40
8	745-208	30
9	745-209	30
10	745-210	20
12	745-212	20



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L +1.5 mm ≙ version **without** mounting flange

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

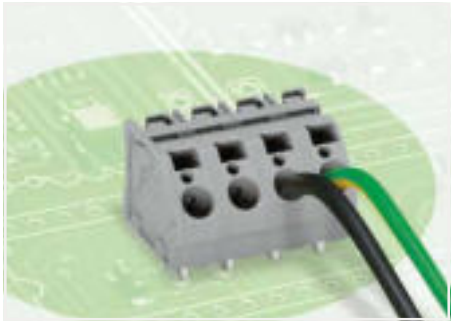
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Versions with mounting flanges
- Direct marking

PCB terminal block ▸ 745 Series

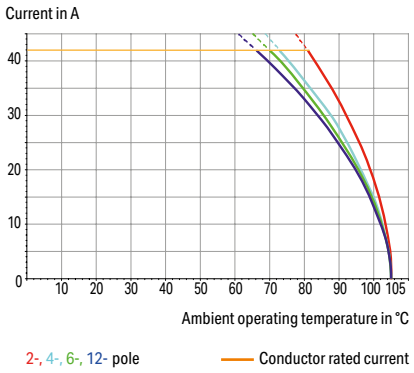
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Color: gray

1



- Terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Versions with Ex approval
- Unrestricted UL approval up to 600 V with 12.5 mm pin spacing
- Double solder pins for high mechanical stability
- Custom color combinations
- Integrated testing tap
- Marker slot for Mini-WSB and WMB markers

Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	10 mm / 0.394 inch			12.5 mm / 0.492 inch;15 mm / 0.591 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	800 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	10 A	5 A	30 A	30 A	-
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	10 A	5 A	30 A	30 A	-

Connection Data

Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 4 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 4 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter with tolerance	1.8 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Jumper	Page 259
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

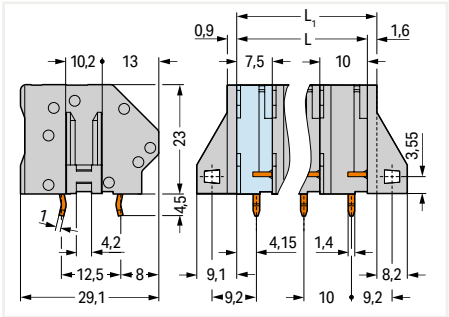
PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Color: gray

Pin spacing: 10 mm / 0.394 inch

745-1354

Pole No.	Item No.	PU
2	745-1352	104
3	745-1353	72
4	745-1354	48
5	745-1355	40
6	745-1356	32
7	745-1357	24
8	745-1358	24
9	745-1359	24
10	745-1360	16
12	745-1362	16

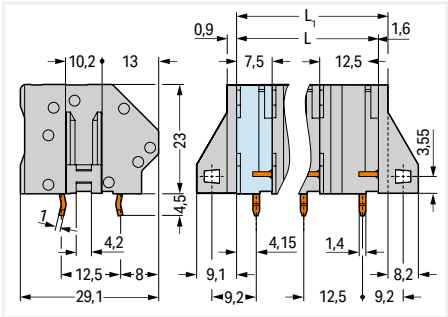


L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flange

Pin spacing: 12.5 mm / 0.492 inch

745-1404

Pole No.	Item No.	PU
2	745-1402	80
3	745-1403	48
4	745-1404	40
5	745-1405	32
6	745-1406	24
7	745-1407	24
8	745-1408	16
9	745-1409	16
10	745-1410	16
12	745-1412	8

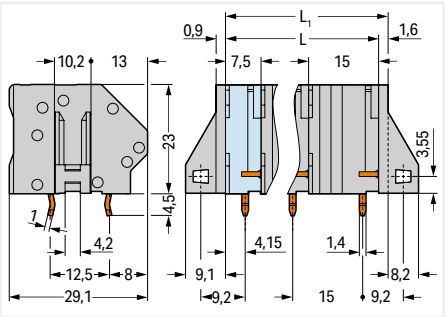


L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flange

Pin spacing: 15 mm / 0.591 inch

745-1454

Pole No.	Item No.	PU
2	745-1452	64
3	745-1453	40
4	745-1454	32
5	745-1455	24
6	745-1456	16
7	745-1457	16
8	745-1458	16
9	745-1459	8
10	745-1460	8
12	745-1462	8



L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flange

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

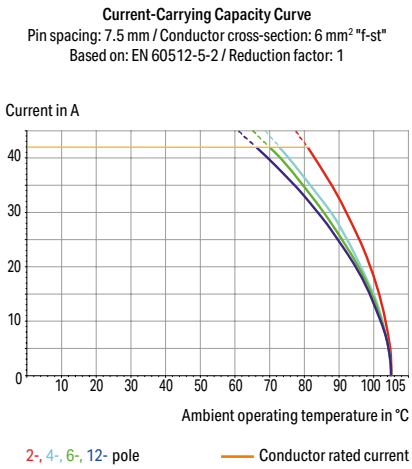
- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Versions with mounting flanges
- Direct marking

Stackable PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Number of jumper slots: 1

1

- Modular terminal blocks with screwdriver-actuated CAGE CLAMP® for custom terminal strip assemblies
- Versions with Ex approval
- Common and distribute potentials via comb-style jumper bars
- Double solder pins for high mechanical stability
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data						
Pin spacing	**7.5 mm / 0.295 inch**			**10 mm / 0.394 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	30 A	30 A	10 A	30 A	30 A	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	30 A	30 A	10 A	30 A	30 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 4 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 4 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter with tolerance	1.8 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Jumper	Page 259
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

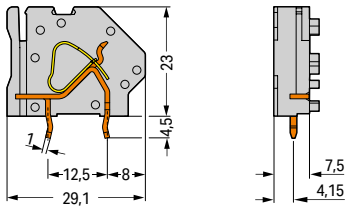
Stackable PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Number of jumper slots: 1

Pin spacing: 7.5 mm / 0.295 inch

745-831

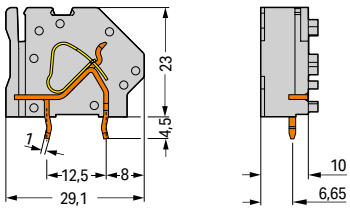
Color	Item No.	PU (SPU)
gray	745-831	100 (50)
blue	745-834	100 (50)
light gray	745-833	100 (50)
green-yellow	745-837	100 (50)
light green	745-838	100 (50)



Pin spacing: 10 mm / 0.394 inch

745-841

Color	Item No.	PU (SPU)
gray	745-841	100 (50)
blue	745-844	100 (50)
light gray	745-843	100 (50)
green-yellow	745-847	100 (50)
light green	745-848	100 (50)



Accessories; for all products on this page

End plate; Width: 1.6 mm; Snap-on type

Color	Item No.	PU (SPU)
gray	745-300	500 (100)

Intermediate plate; Extends pin spacing; Width: 2.5 mm / 0.098 inch

Color	Item No.	PU (SPU)
gray	745-338	500 (50)

End plate; Width: 9.8 mm; Screw mount

Color	Item No.	PU (SPU)
gray	745-340	200 (50)

End plate; Width: 9.1 mm; Screw mount

Color	Item No.	PU (SPU)
gray	745-345	200 (50)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

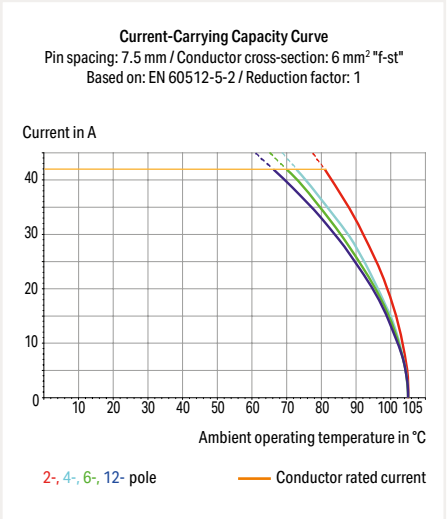
- Versions for Ex e II and Ex i
- Other colors

PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Number of jumper slots: 1 ▸ Color: gray

1

- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Versions with Ex approval
- Common and distribute potentials via comb-style jumper bars
- Double solder pins for high mechanical stability
- Custom color combinations
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data						
Pin spacing	**7.5 mm / 0.295 inch**			**10 mm / 0.394 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	30 A	30 A	10 A	30 A	30 A	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	30 A	30 A	10 A	30 A	30 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 4 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 4 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter with tolerance	1.8 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Jumper	Page 259
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

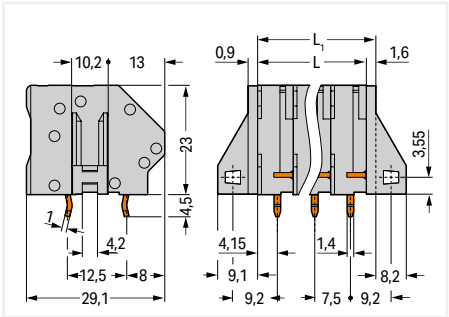
PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Number of jumper slots: 1 ▸ Color: gray

Pin spacing: 7.5 mm / 0.295 inch

745-308

Pole No.	Item No.	PU
2	745-302	128
3	745-303	88
4	745-304	64
5	745-305	48
6	745-306	40
7	745-307	40
8	745-308	32
9	745-309	24
10	745-310	24
12	745-312	16

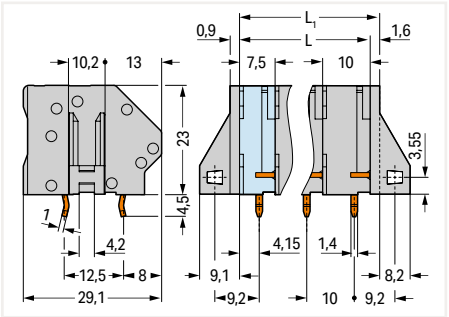


L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flange

Pin spacing: 10 mm / 0.394 inch

745-357

Pole No.	Item No.	PU
2	745-352	104
3	745-353	72
4	745-354	48
5	745-355	40
6	745-356	32
7	745-357	24
8	745-358	24
9	745-359	24
10	745-360	16
12	745-362	16



L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flange

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

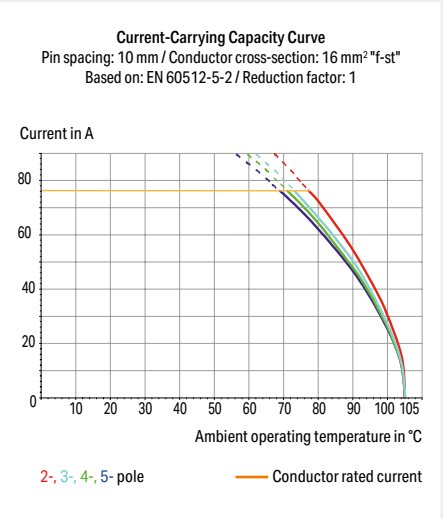
- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Versions with mounting flanges
- Direct marking

Stackable PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Number of jumper slots: 1

1

- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® for custom PCB terminal strip assemblies
- Versions with Ex approval
- Unrestricted UL approval up to 600 V with 20 mm pin spacing
- Common and distribute potentials via comb-style jumper bars
- Four solder pins for high mechanical stability
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data									
Pin spacing	**10 mm / 0.394 inch**			**15 mm / 0.591 inch**			**20 mm / 0.787 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	630 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	8 kV	8 kV	8 kV	12 kV	12 kV	12 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	-	10 A	65 A	65 A	5 A	65 A	65 A	-
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	-	10 A	65 A	65 A	5 A	65 A	65 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 16 mm² / 24 … 6 AWG
Fine-stranded conductor	0.2 … 16 mm² / 24 … 6 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 10 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 10 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	6.5 mm
Solder pin dimensions	1.2 x 1.6 mm
Drilled hole diameter with tolerance	2.2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Jumper	Page 259
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

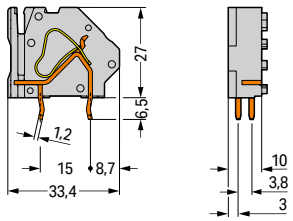
Stackable PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Number of jumper slots: 1

Pin spacing: 10 mm / 0.394 inch

745-851/006-000

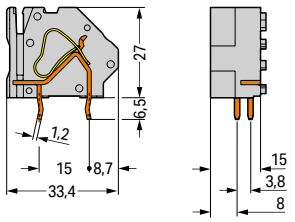
Color	Item No.	PU (SPU)
gray	745-851/006-000	100 (100)
blue	745-854/006-000	100 (100)
light gray	745-853/006-000	100
green-yellow	745-857/006-000	100 (100)
light green	745-858/006-000	100



Pin spacing: 15 mm / 0.591 inch

745-871/006-000

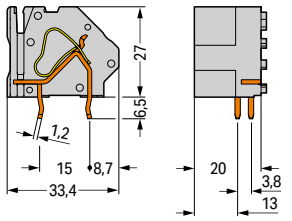
Color	Item No.	PU (SPU)
gray	745-871/006-000	100 (100)
blue	745-874/006-000	100 (100)
light gray	745-873/006-000	100 (100)
green-yellow	745-877/006-000	100 (100)
light green	745-878/006-000	100



Pin spacing: 20 mm / 0.787 inch

745-881/006-000

Color	Item No.	PU (SPU)
gray	745-881/006-000	50 (50)
blue	745-884/006-000	50 (50)
light gray	745-883/006-000	50 (50)
green-yellow	745-887/006-000	50 (50)
light green	745-888/006-000	50



Accessories; for all products on this page

End plate; Width: 1.7 mm; snap-on type

Color	Item No.	PU (SPU)
gray	745-500	500 (100)

End plate; Width: 10.5 mm; Screw mount

	Item No.	PU (SPU)
	745-540	200 (50)
	745-545	200 (50)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

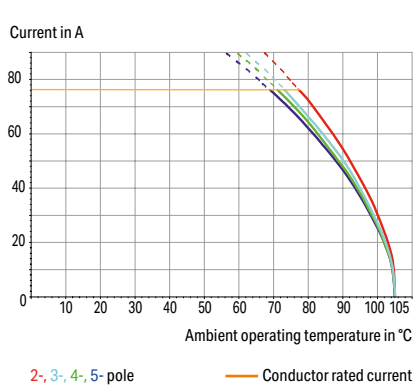
- Versions for Ex e II and Ex i
- Other colors
- Solder pin length: 5 mm

PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Number of jumper slots: 1 ▸ Color: gray

1

- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Versions with Ex approval
- Unrestricted UL approval up to 600 V with 20 mm pin spacing
- Common and distribute potentials via comb-style jumper bars
- Four solder pins for high mechanical stability
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data									
Pin spacing	**10 mm / 0.394 inch**			**15 mm / 0.591 inch**			**20 mm / 0.787 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	630 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	8 kV	8 kV	8 kV	12 kV	12 kV	12 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	-	10 A	65 A	65 A	5 A	65 A	65 A	-
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	-	10 A	65 A	65 A	5 A	65 A	65 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 16 mm² / 24 … 6 AWG
Fine-stranded conductor	0.2 … 16 mm² / 24 … 6 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 10 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 10 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	6.5 mm
Solder pin dimensions	1.2 x 1.6 mm
Drilled hole diameter with tolerance	2.2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Jumper	Page 259
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

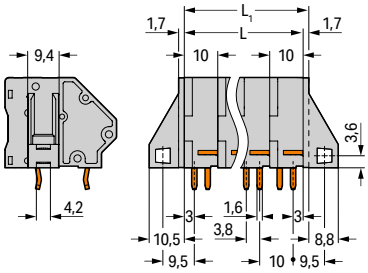
PCB terminal block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Number of jumper slots: 1 ▸ Color: gray

Pin spacing: 10 mm / 0.394 inch

745-504/006-000

Pole No.	Item No.	PU
2	745-502/006-000	48
3	745-503/006-000	32
4	745-504/006-000	24
5	745-505/006-000	20

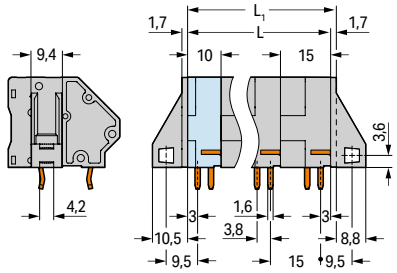


L = (pole no. – 1) x pin spacing + 10 mm
L_1 = L + 1.7 mm ≙ version **without** mounting flange

Pin spacing: 15 mm / 0.591 inch

745-604/006-000

Pole No.	Item No.	PU
2	745-602/006-000	36
3	745-603/006-000	24
4	745-604/006-000	16
5	745-605/006-000	12

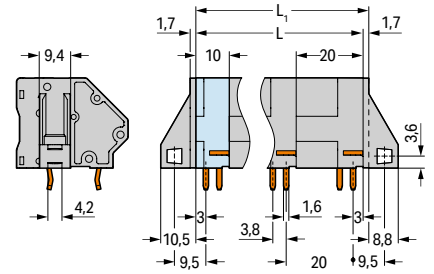


L = (pole no. – 1) x pin spacing + 10 mm
L_1 = L + 1.7 mm ≙ version **without** mounting flange

Pin spacing: 20 mm / 0.787 inch

745-654/006-000

Pole No.	Item No.	PU
2	745-652/006-000	32
3	745-653/006-000	20
4	745-654/006-000	12
5	745-655/006-000	8



L = (pole no. – 1) x pin spacing + 10 mm
L_1 = L + 1.7 mm ≙ version **without** mounting flange

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

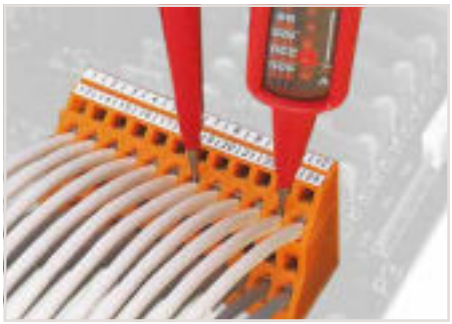
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Versions with mounting flanges
- Direct marking
- Solder pin length: 5 mm

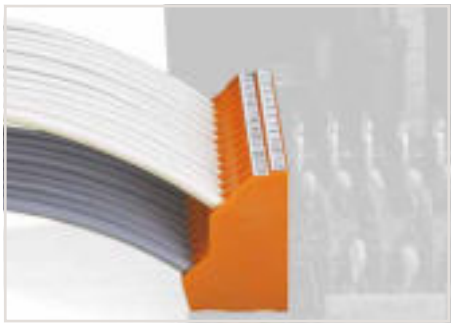
CAGE CLAMP®

736, 737 and 738 Series
Description and Installation

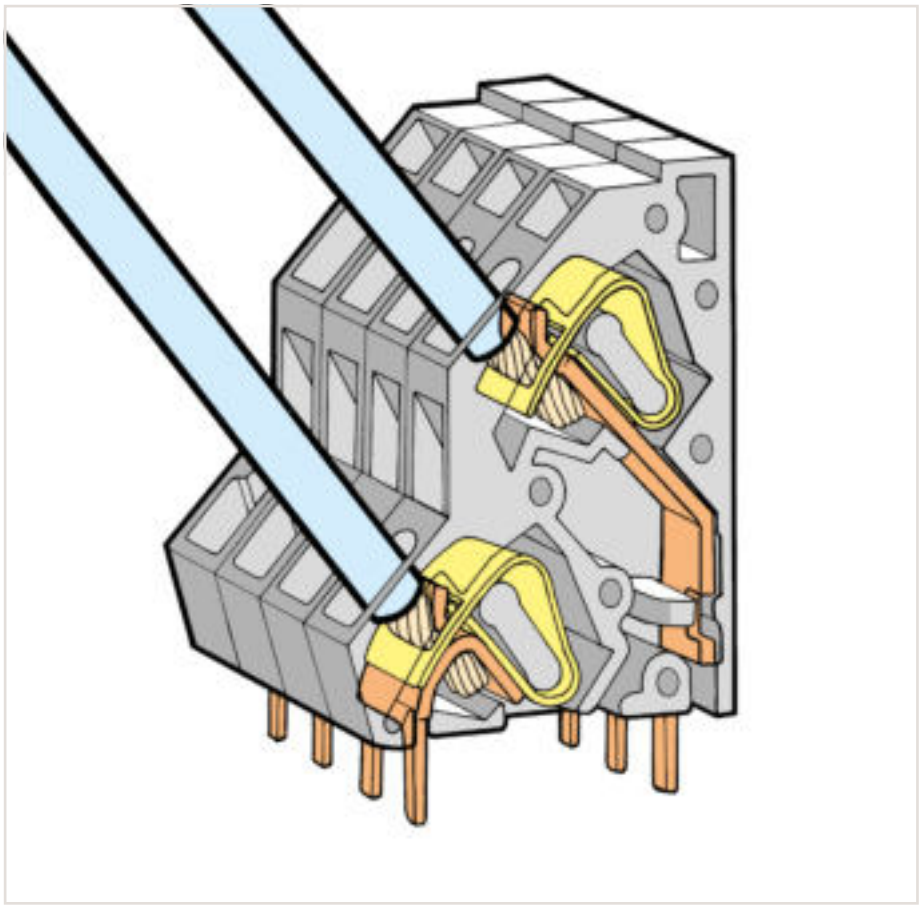
Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation parallel to conductor entry.



Testing via contact area above the conductors.



Low space requirements due to high-density design
– double-deck PCB terminal strip – 736 Series.



736 Series

Labeling with self-adhesive marking strips.

736, 737 and 738 Series
Combination of Multilevel PCB Terminal Strips

Possible combination:
Double- (736 Series) and triple-deck PCB terminal strips (737 Series) upon request
Combination of Multilevel PCB Terminal Strips

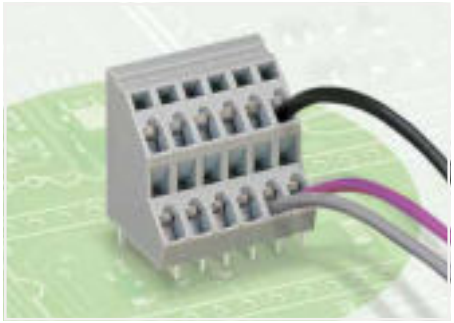
Possible combination:
Double- (736 Series) and triple-deck PCB terminal strips (737 Series) upon request

Possible combination:
Double- (737 Series) and quadruple-deck PCB terminal strips (738 Series) upon request

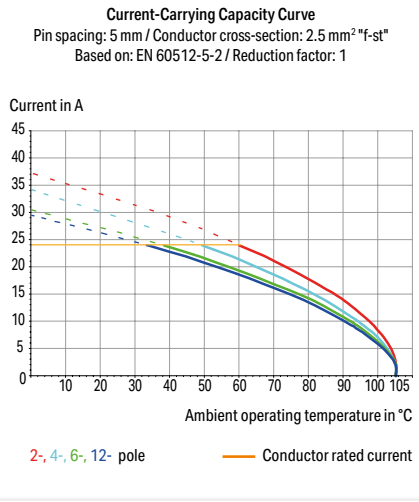
Possible combination:
Double- (737 Series) and quadruple-deck PCB terminal strips (738 Series) upon request

Double-deck PCB terminal block ▸ 736 Series
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- High-density, double-deck design for space-efficient wiring of multiple conductors in confined areas
- Custom marking for all termination levels



Electrical Data									
Pin spacing	**5 mm / 0.197 inch**			**7.5 mm / 0.295 inch**			**10 mm / 0.394 inch**		
between the modules									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
between the decks									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870
Commoning strips	Page 262
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

Double-deck PCB terminal block ▸ 736 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

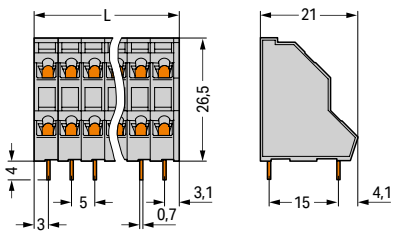
Pin spacing: 5 mm / 0.197 inch

Solder pin arrangement Within the terminal block (in-line)

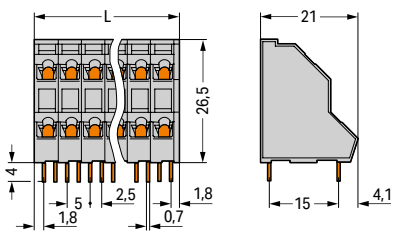
Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
4	2 x 2	736-102	161
6	2 x 3	736-103	112
8	2 x 4	736-104	84
12	2 x 6	736-106	56
16	2 x 8	736-108	42
24	2 x 12	736-112	28
32	2 x 16	736-116	21
48	2 x 24	736-124	14

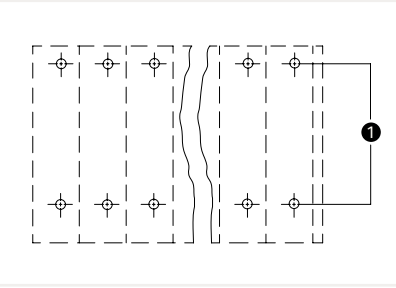
Pole No.	Distribution	Item No.	PU
4	2 x 2	736-202	161
6	2 x 3	736-203	112
8	2 x 4	736-204	84
12	2 x 6	736-206	56
16	2 x 8	736-208	42
24	2 x 12	736-212	28
32	2 x 16	736-216	21
48	2 x 24	736-224	14



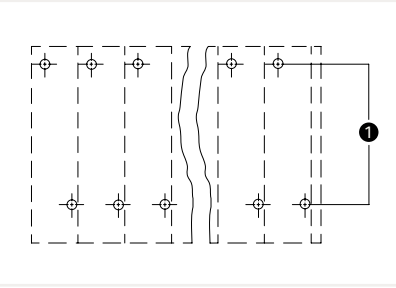
L = (pole no. x pin spacing) + 1 mm



L = (pole no. x pin spacing) + 1 mm



(1) Solder pins in line



(1) Solder pins staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Double-deck PCB terminal block ▸ 736 Series

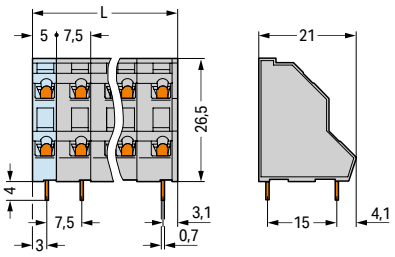
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 7.5 mm / 0.295 inch

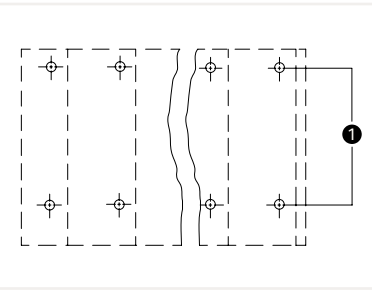
1

Solder pin arrangement Within the terminal block (in-line)

Pole No.	Distribution	Item No.	PU
4	2 x 2	736-502	133
6	2 x 3	736-503	84
8	2 x 4	736-504	63
12	2 x 6	736-506	42
16	2 x 8	736-508	28
24	2 x 12	736-512	21
32	2 x 16	736-516	14



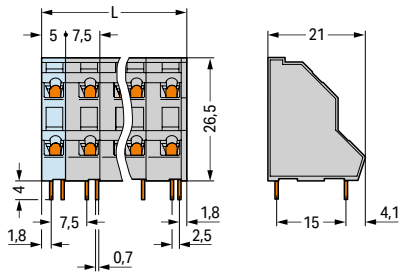
L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



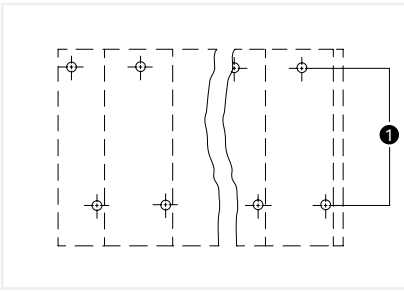
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
4	2 x 2	736-552	133
6	2 x 3	736-553	84
8	2 x 4	736-554	63
12	2 x 6	736-556	42
16	2 x 8	736-558	28
24	2 x 12	736-562	21
32	2 x 16	736-566	14



L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



(1) Solder pins staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

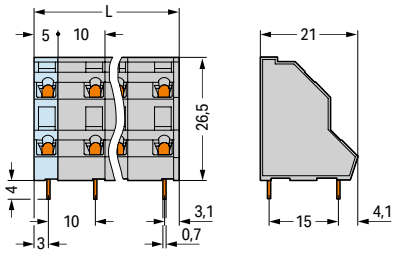
Double-deck PCB terminal block ▸ 736 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

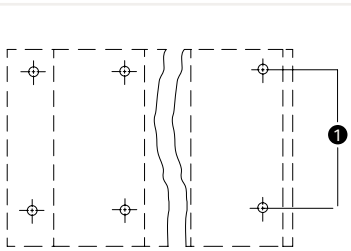
Pin spacing: 10 mm / 0.394 inch

Solder pin arrangement Within the terminal block (in-line)

Pole No.	Distribution	Item No.	PU
4	2 x 2	736-702	112
6	2 x 3	736-703	70
8	2 x 4	736-704	49
12	2 x 6	736-706	28
16	2 x 8	736-708	21
24	2 x 12	736-712	14



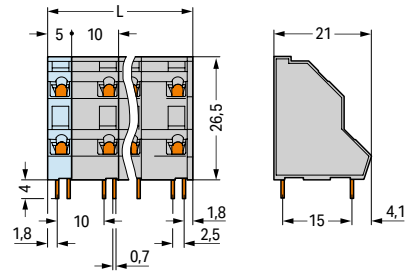
L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



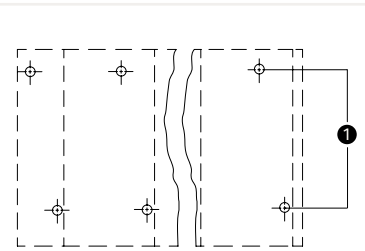
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
4	2 x 2	736-752	112
6	2 x 3	736-753	70
8	2 x 4	736-754	49
12	2 x 6	736-756	28
16	2 x 8	736-758	21
24	2 x 12	736-762	14



L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



(1) Solder pins staggered by half the pin spacing

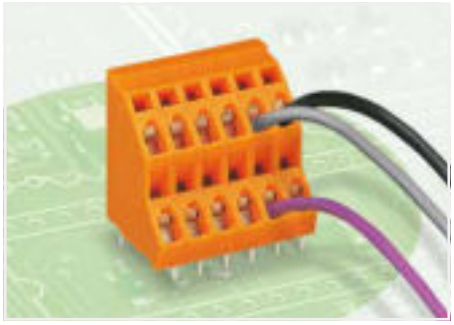
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

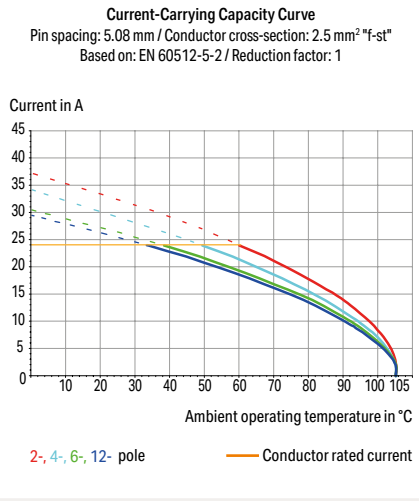
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Double-deck PCB terminal block ▸ 736 Series
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- High-density, double-deck design for space-efficient wiring of multiple conductors in confined areas
- Custom marking for all termination levels



Electrical Data									
Pin spacing	**5.08 mm / 0.2 inch**			**7.62 mm / 0.3 inch**			**10.16 mm / 0.4 inch**		
between the modules									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
between the decks									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

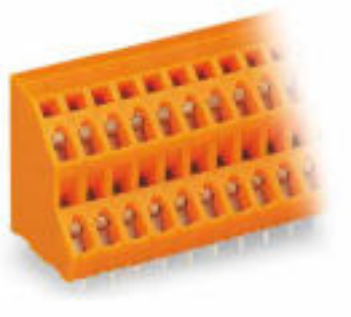
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870
Commoning strips	Page 262
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

Double-deck PCB terminal block ▸ 736 Series

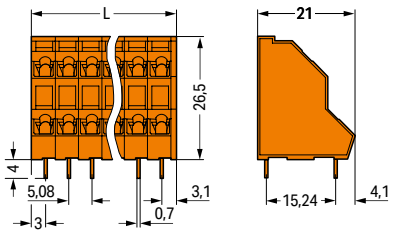
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange

Pin spacing: 5.08 mm / 0.2 inch

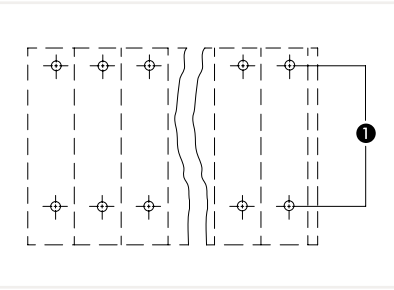
Solder pin arrangement Within the terminal block (in-line)



Pole No.	Distribution	Item No.	PU
4	2 x 2	736-302	161
6	2 x 3	736-303	112
8	2 x 4	736-304	84
12	2 x 6	736-306	56
16	2 x 8	736-308	42
24	2 x 12	736-312	28
32	2 x 16	736-316	21
48	2 x 24	736-324	14



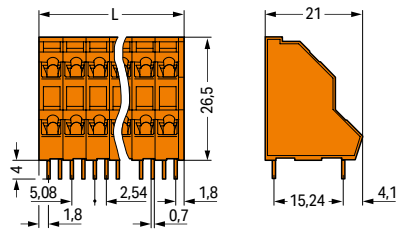
L = (pole no. x pin spacing) + 1 mm



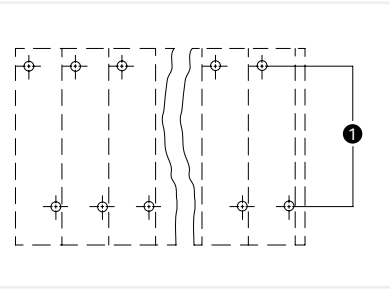
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
4	2 x 2	736-402	161
6	2 x 3	736-403	112
8	2 x 4	736-404	84
12	2 x 6	736-406	56
16	2 x 8	736-408	42
24	2 x 12	736-412	28
32	2 x 16	736-416	21
48	2 x 24	736-424	14



L = (pole no. x pin spacing) + 1 mm



(1) Solder pins staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Double-deck PCB terminal block ▸ 736 Series

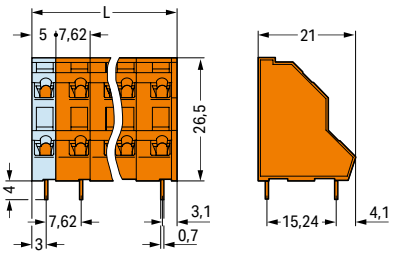
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange

Pin spacing: 7.62 mm / 0.3 inch

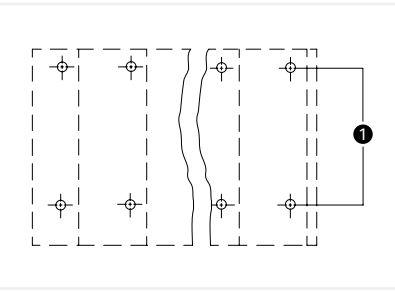
1

Solder pin arrangement Within the terminal block (in-line)

Pole No.	Distribution	Item No.	PU (SPU)
4	2 x 2	736-602	133
6	2 x 3	736-603	84 (21)
8	2 x 4	736-604	63
12	2 x 6	736-606	35
16	2 x 8	736-608	28
24	2 x 12	736-612	14
32	2 x 16	736-616	14

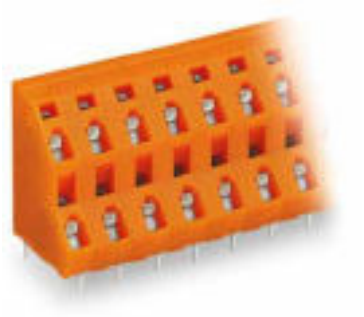


L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm

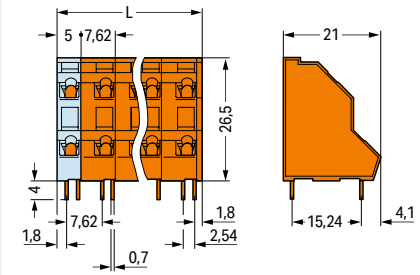


(1) Solder pins in line

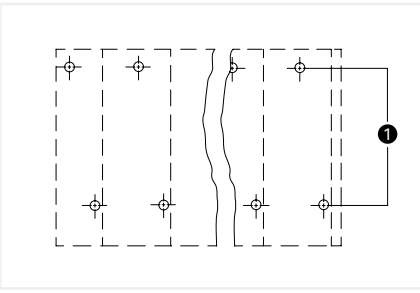
Solder pin arrangement Within the terminal block (staggered)



Pole No.	Distribution	Item No.	PU
4	2 x 2	736-652	133
6	2 x 3	736-653	84
8	2 x 4	736-654	63
12	2 x 6	736-656	35
16	2 x 8	736-658	28
24	2 x 12	736-662	14
32	2 x 16	736-666	14



L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



(1) Solder pins staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

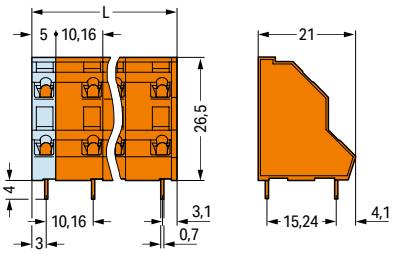
Double-deck PCB terminal block ▸ 736 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange

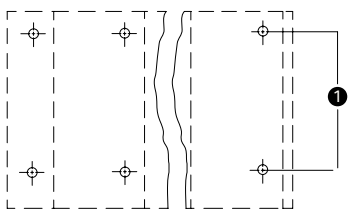
Pin spacing: 10.16 mm / 0.4 inch

Solder pin arrangement Within the terminal block (in-line)

Pole No.	Distribution	Item No.	PU
4	2 x 2	736-802	112
6	2 x 3	736-803	70
8	2 x 4	736-804	49
12	2 x 6	736-806	28
16	2 x 8	736-808	21
24	2 x 12	736-812	14



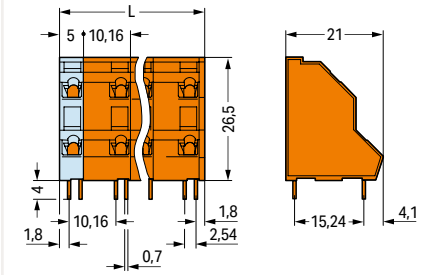
L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



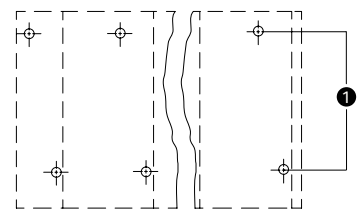
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
4	2 x 2	736-852	112
6	2 x 3	736-853	70
8	2 x 4	736-854	49
12	2 x 6	736-856	28
16	2 x 8	736-858	21
24	2 x 12	736-862	14



L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



(1) Solder pins staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

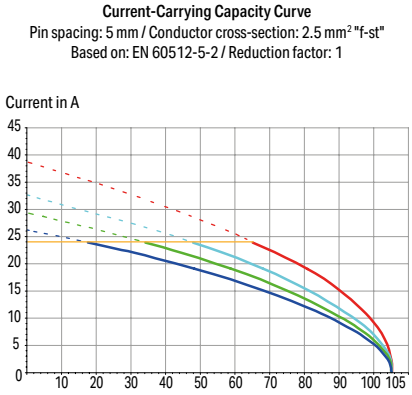
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Triple-deck PCB terminal block ▸ 737 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

1

- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- High-density, triple-deck design for space-efficient wiring of multiple conductors in confined areas
- Custom marking for all termination levels



Electrical Data									
Pin spacing	**5 mm / 0.197 inch**			**7.5 mm / 0.295 inch**			**10 mm / 0.394 inch**		
between the modules									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
between the decks									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870
Commoning strips	Page 262
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

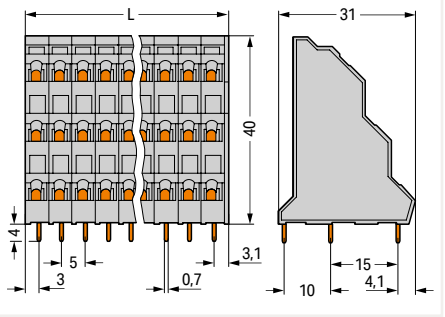
Triple-deck PCB terminal block ▸ 737 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

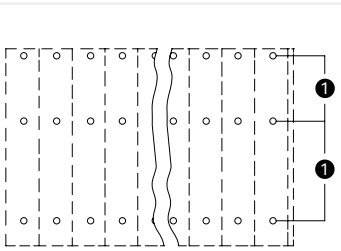
Pin spacing: 5 mm / 0.197 inch

Solder pin arrangement Within the terminal block (in-line)

Pole No.	Distribution	Item No.	PU
6	3 x 2	737-102	92
9	3 x 3	737-103	64
12	3 x 4	737-104	48
18	3 x 6	737-106	32
24	3 x 8	737-108	24
36	3 x 12	737-112	16
48	3 x 16	737-116	12
72	3 x 24	737-124	8



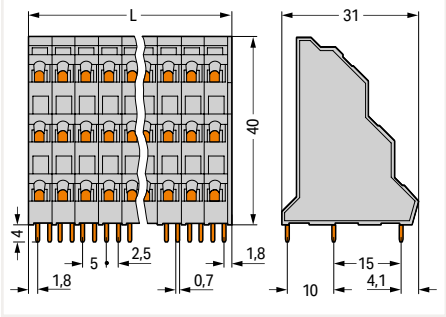
L = (pole no. x pin spacing) + 1 mm



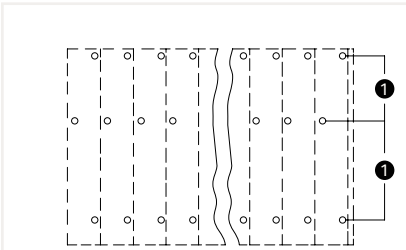
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
6	3 x 2	737-202	92
9	3 x 3	737-203	64
12	3 x 4	737-204	48
18	3 x 6	737-206	32
24	3 x 8	737-208	24
36	3 x 12	737-212	16
48	3 x 16	737-216	12
72	3 x 24	737-224	8



L = (pole no. x pin spacing) + 1 mm



(1) Solder pins for deck 2 staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Triple-deck PCB terminal block ▸ 737 Series

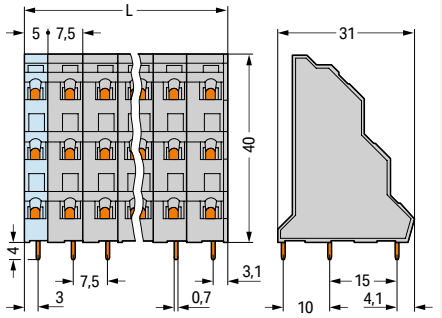
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 7.5 mm / 0.295 inch

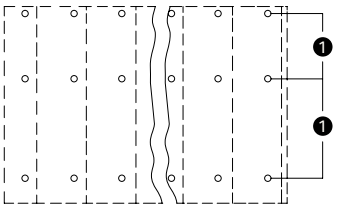
1

Solder pin arrangement Within the terminal block (in-line)

Pole No.	Distribution	Item No.	PU
6	3 x 2	737-502	76
9	3 x 3	737-503	48
12	3 x 4	737-504	36
18	3 x 6	737-506	24
24	3 x 8	737-508	16
36	3 x 12	737-512	8
48	3 x 16	737-516	8



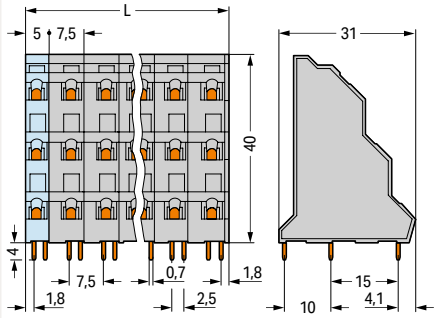
L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



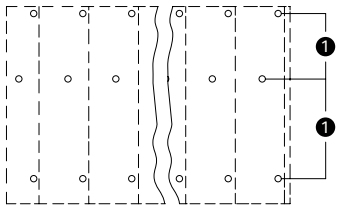
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
6	3 x 2	737-552	76
9	3 x 3	737-553	48
12	3 x 4	737-554	36
18	3 x 6	737-556	24
24	3 x 8	737-558	16
36	3 x 12	737-562	8
48	3 x 16	737-566	8



L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



(1) Solder pins for deck 2 staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

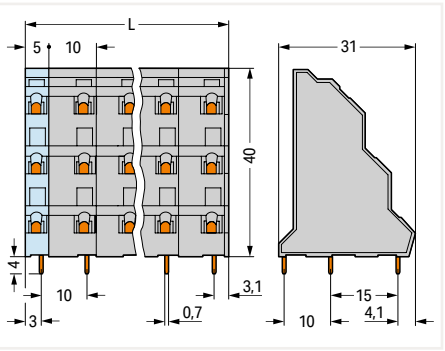
Triple-deck PCB terminal block ▸ 737 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

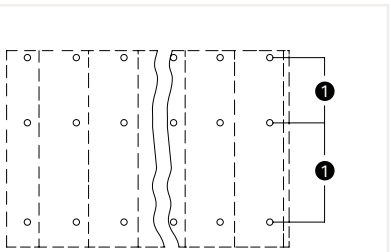
Pin spacing: 10 mm / 0.394 inch

Solder pin arrangement Within the terminal block (in-line)

Pole No.	Distribution	Item No.	PU
6	3 x 2	737-702	64
9	3 x 3	737-703	40
12	3 x 4	737-704	28
18	3 x 6	737-706	16
24	3 x 8	737-708	12
36	3 x 12	737-712	8



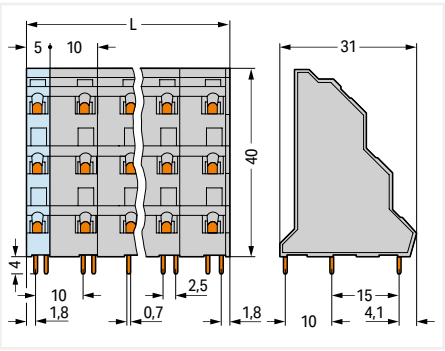
L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



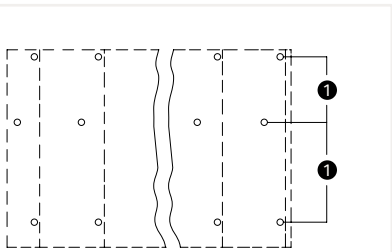
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
6	3 x 2	737-752	64
9	3 x 3	737-753	40
12	3 x 4	737-754	28
18	3 x 6	737-756	16
24	3 x 8	737-758	12
36	3 x 12	737-762	8



L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



(1) Solder pins for deck 2 staggered by half the pin spacing

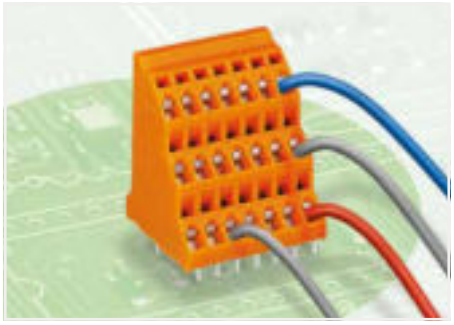
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

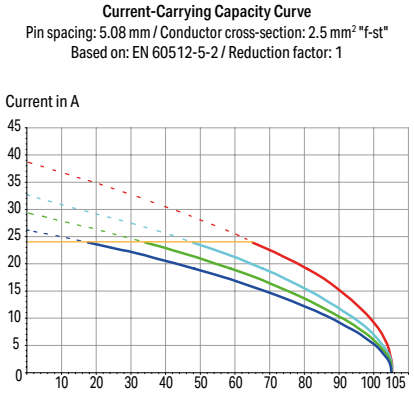
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Triple-deck PCB terminal block ▸ 737 Series
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- High-density, triple-deck design for space-efficient wiring of multiple conductors in confined areas
- Custom marking for all termination levels



Electrical Data									
Pin spacing	**5.08 mm / 0.2 inch**			**7.62 mm / 0.3 inch**			**10.16 mm / 0.4 inch**		
between the modules									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
between the decks									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

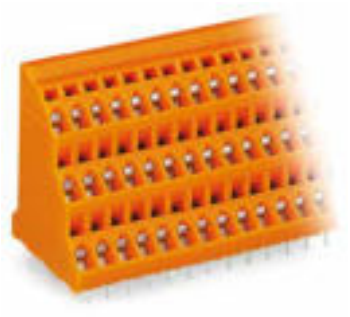
Triple-deck PCB terminal block ▸ 737 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange

Pin spacing: 5.08 mm / 0.2 inch

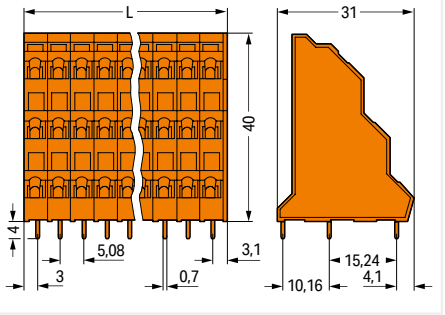
Solder pin arrangement Within the terminal block (in-line)

Solder pin arrangement Within the terminal block (staggered)

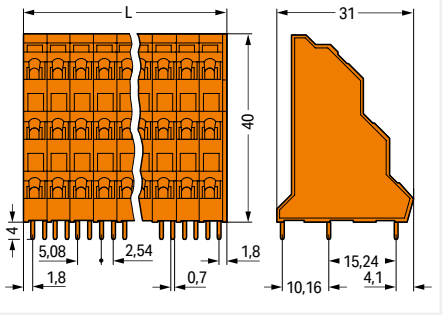


Pole No.	Distribution	Item No.	PU
6	3 x 2	737-302	92
9	3 x 3	737-303	64
12	3 x 4	737-304	48
18	3 x 6	737-306	32
24	3 x 8	737-308	24
36	3 x 12	737-312	16
48	3 x 16	737-316	12
72	3 x 24	737-324	8

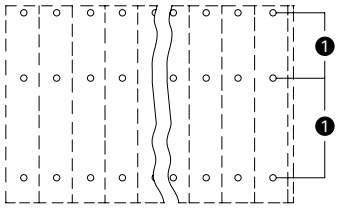
Pole No.	Distribution	Item No.	PU
6	3 x 2	737-402	96
9	3 x 3	737-403	64
12	3 x 4	737-404	48
18	3 x 6	737-406	32
24	3 x 8	737-408	24
36	3 x 12	737-412	16
48	3 x 16	737-416	12
72	3 x 24	737-424	8



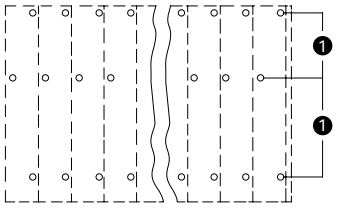
L = (pole no. x pin spacing) + 1 mm



L = (pole no. x pin spacing) + 1 mm



(1) Solder pins in line



(1) Solder pins for deck 2 staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

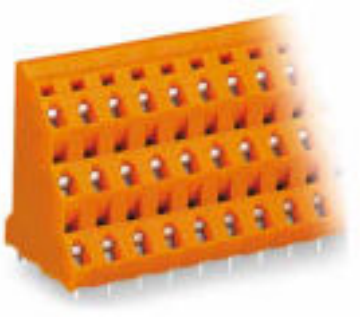
Triple-deck PCB terminal block ▸ 737 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange

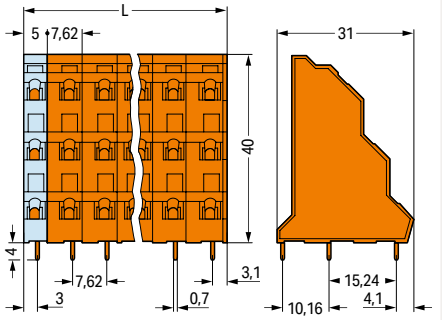
Pin spacing: 7.62 mm / 0.3 inch

1

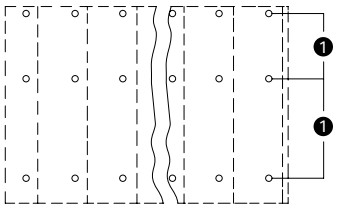
Solder pin arrangement Within the terminal block (in-line)



Pole No.	Distribution	Item No.	PU
6	3 x 2	737-602	76
9	3 x 3	737-603	48
12	3 x 4	737-604	36
18	3 x 6	737-606	20
24	3 x 8	737-608	16
36	3 x 12	737-612	8
48	3 x 16	737-616	8

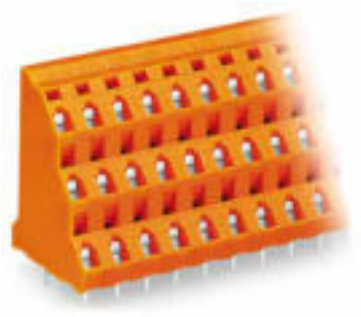


L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm

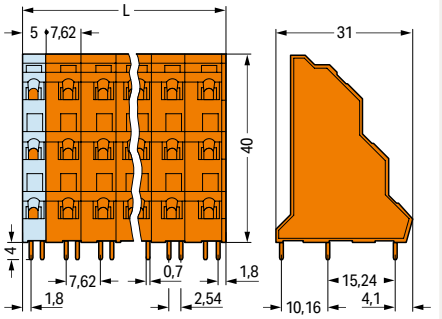


(1) Solder pins in line

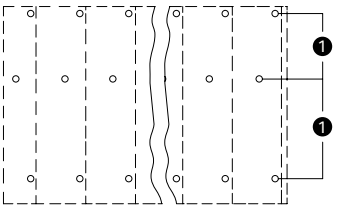
Solder pin arrangement Within the terminal block (staggered)



Pole No.	Distribution	Item No.	PU
6	3 x 2	737-652	76
9	3 x 3	737-653	48
12	3 x 4	737-654	36
18	3 x 6	737-656	20
24	3 x 8	737-658	16
36	3 x 12	737-662	8
48	3 x 16	737-666	8



L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



(1) Solder pins for deck 2 staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

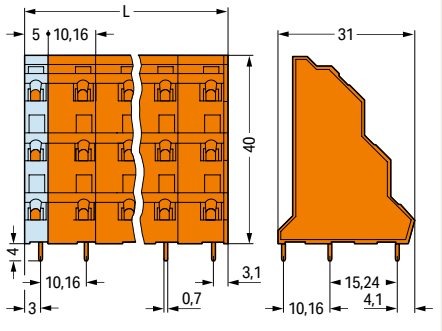
Triple-deck PCB terminal block ▸ 737 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange

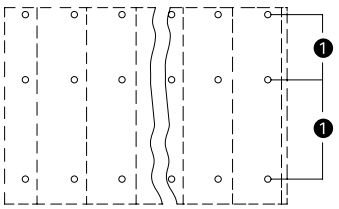
Pin spacing: 10.16 mm / 0.4 inch

Solder pin arrangement Within the terminal block (in-line)

Pole No.	Distribution	Item No.	PU
6	3 x 2	737-802	64
9	3 x 3	737-803	40
12	3 x 4	737-804	28
18	3 x 6	737-806	16
24	3 x 8	737-808	12
36	3 x 12	737-812	8



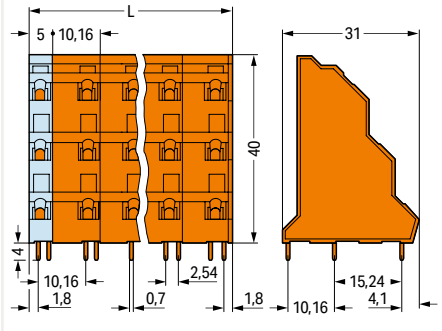
L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



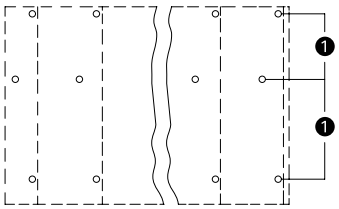
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
6	3 x 2	737-852	64
9	3 x 3	737-853	40
12	3 x 4	737-854	28
18	3 x 6	737-856	16
24	3 x 8	737-858	12
36	3 x 12	737-862	8



L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



(1) Solder pins for deck 2 staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

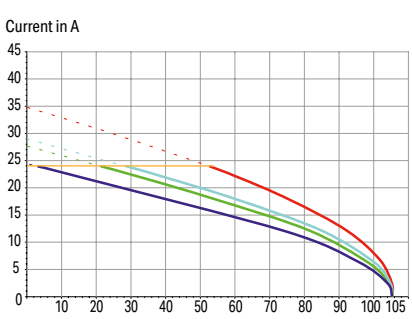
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Quadruple-deck PCB terminal block ▸ 738 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1

- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- High-density, quadruple-deck design for space-efficient wiring of multiple conductors in confined areas
- Angled conductor entry and CAGE CLAMP® actuation streamline operation
- Custom marking for all termination levels



Electrical Data			
Pin spacing	5 mm / 0.197 inch		
between the modules			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
between the decks			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

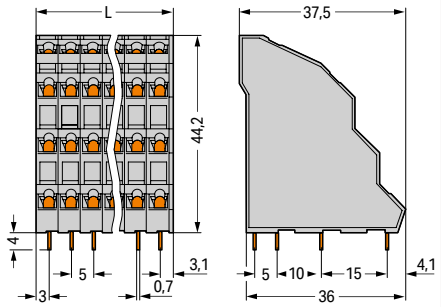
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870
Commoning strips	Page 262
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

Quadruple-deck PCB terminal block ▸ 738 Series

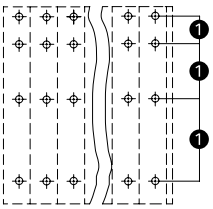
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

Solder pin arrangement Within the terminal block (in-line)

Pole No.	Distribution	Item No.	PU
8	4 x 2	738-102	72
12	4 x 3	738-103	48
16	4 x 4	738-104	36
24	4 x 6	738-106	24
32	4 x 8	738-108	18
48	4 x 12	738-112	12
64	4 x 16	738-116	9
96	4 x 24	738-124	6



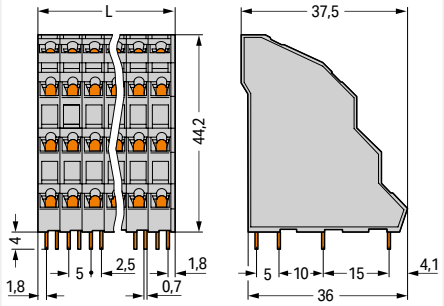
L = (pole no. x pin spacing) + 1 mm



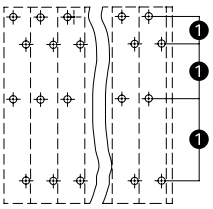
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)

Pole No.	Distribution	Item No.	PU
8	4 x 2	738-202	72
12	4 x 3	738-203	48
16	4 x 4	738-204	36
24	4 x 6	738-206	24
32	4 x 8	738-208	18
48	4 x 12	738-212	12
64	4 x 16	738-216	9
96	4 x 24	738-224	6



L = (pole no. x pin spacing) + 1 mm



(1) Solder pins for deck 2 and 4 staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

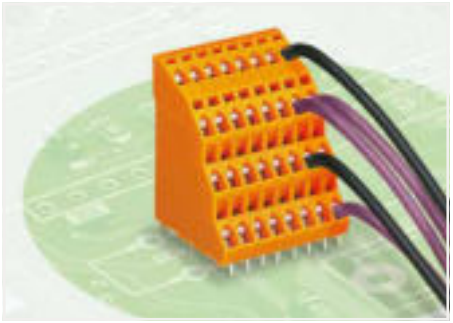
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

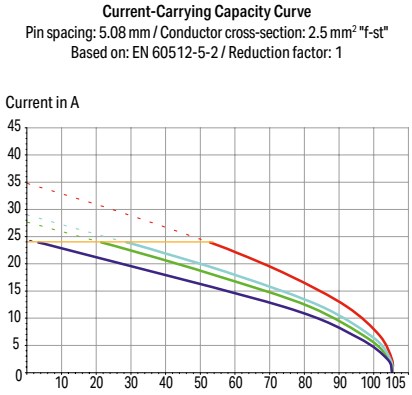
Quadruple-deck PCB terminal block ▸ 738 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- High-density, quadruple-deck design for space-efficient wiring of multiple conductors in confined areas
- Angled conductor entry and CAGE CLAMP® actuation streamline operation
- Custom marking for all termination levels



Electrical Data			
Pin spacing	5.08 mm / 0.2 inch		
between the modules			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
between the decks			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 260
Tool	Page 870
Commoning strips	Page 262

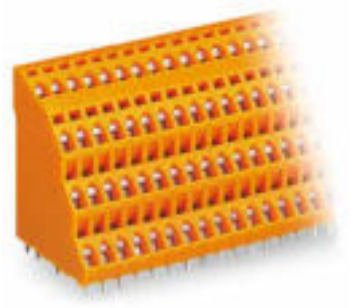
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Quadruple-deck PCB terminal block ▸ 738 Series

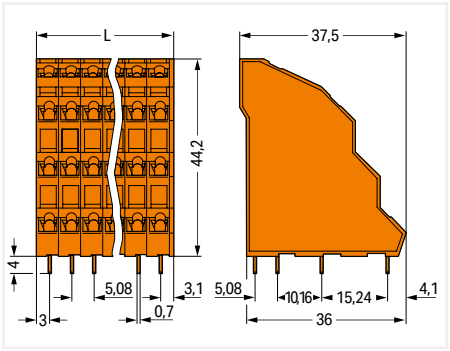
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

Solder pin arrangement Within the terminal block (in-line)



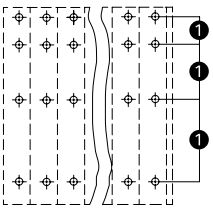
Pole No.	Distribution	Item No.	PU
8	4 x 2	738-302	69
12	4 x 3	738-303	48
16	4 x 4	738-304	36
24	4 x 6	738-306	24
32	4 x 8	738-308	18
48	4 x 12	738-312	12
64	4 x 16	738-316	9
96	4 x 24	738-324	6

Dimensions in mm



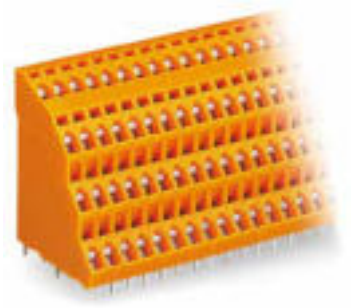
L = (pole no. x pin spacing) + 1 mm

Dimensions in mm



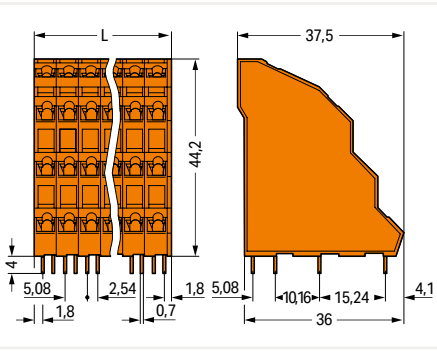
(1) Solder pins in line

Solder pin arrangement Within the terminal block (staggered)



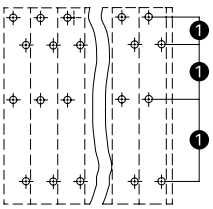
Pole No.	Distribution	Item No.	PU
8	4 x 2	738-402	69
12	4 x 3	738-403	48
16	4 x 4	738-404	36
24	4 x 6	738-406	24
32	4 x 8	738-408	18
48	4 x 12	738-412	12
64	4 x 16	738-416	9
96	4 x 24	738-424	6

Dimensions in mm



L = (pole no. x pin spacing) + 1 mm

Dimensions in mm



(1) Solder pins for deck 2 and 4 staggered by half the pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit

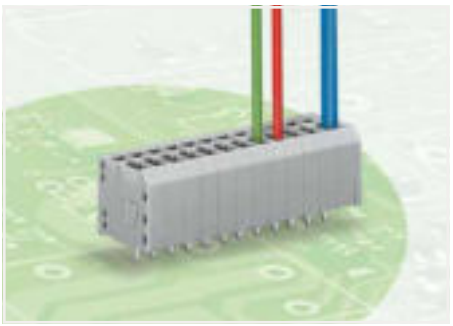
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 739 Series

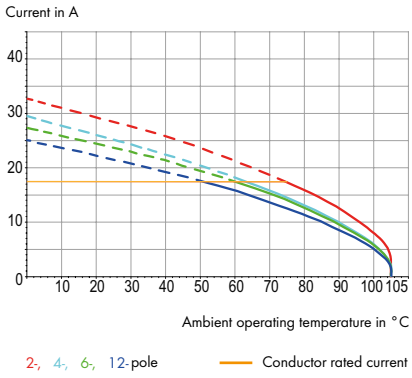
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Vertical conductor entry and operating direction for space-saving positioning/grouping

Current-Carrying Capacity Curve
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	3.5 mm / 0.138 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	14 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.4 mm
Solder pin dimensions	0.6 x 0.8 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Tool	Page 870

See technical section for further information

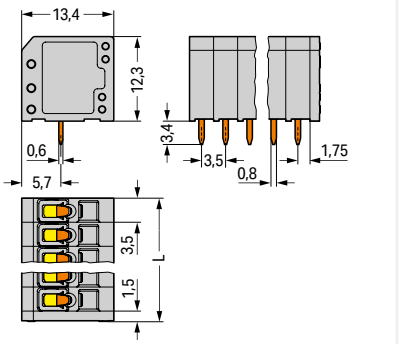
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

739-312

Pole No.	Item No.	PU (SPU)
2	739-302	560 (140)
3	739-303	400 (100)
4	739-304	300 (75)
5	739-305	240 (60)
6	739-306	200 (50)
7	739-307	180 (45)
8	739-308	160 (40)
9	739-309	140 (35)
10	739-310	120 (30)
12	739-312	100 (25)

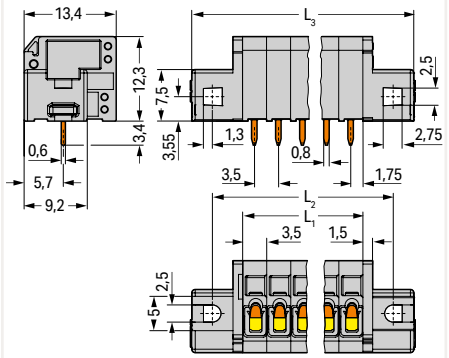


L = (pole no. x pin spacing) + 1.5 mm

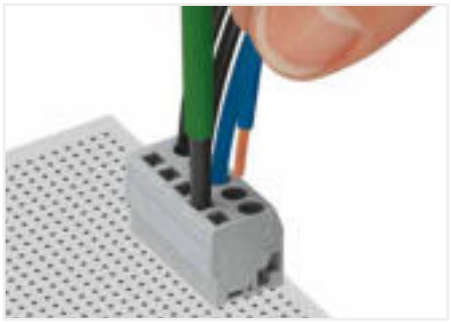
Mounting type: Mounting flange

739-306/001-000

Pole No.	Item No.	PU (SPU)
2	739-302/001-000	200 (50)
3	739-303/001-000	180 (45)
4	739-304/001-000	140 (35)
5	739-305/001-000	140 (35)
6	739-306/001-000	120 (30)
7	739-307/001-000	180 (45)
8	739-308/001-000	100 (25)
9	739-309/001-000	80 (20)
10	739-310/001-000	80 (20)
12	739-312/001-000	80 (20)



L_1 = pole no. x pin spacing
L_2 = L_1 + 8.8 mm
L_3 = L_1 + 14.8 mm



Inserting a conductor parallel to screwdriver actuation – 739 Series.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

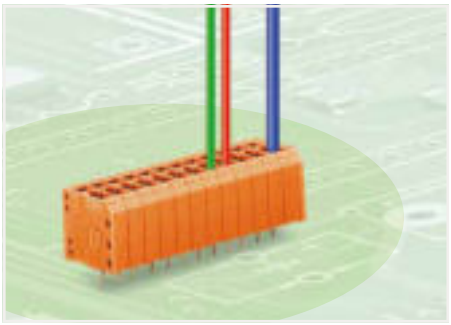
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 739 Series

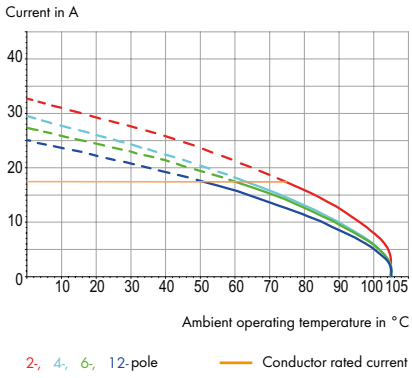
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Vertical conductor entry and operating direction for space-saving positioning/grouping

Current-Carrying Capacity Curve
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	3.81 mm / 0.15 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	14 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.4 mm
Solder pin dimensions	0.6 x 0.8 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Tool	Page 870

See technical section for further information

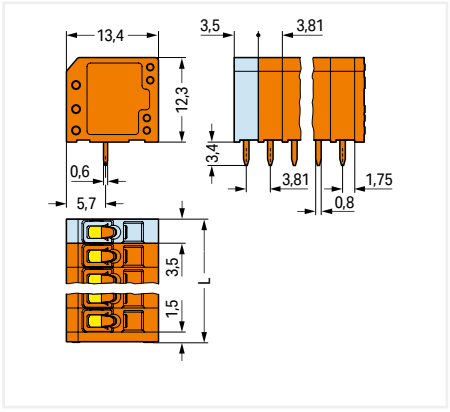
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

739-342

Pole No.	Item No.	PU (SPU)
2	739-332	520 (130)
3	739-333	360 (90)
4	739-334	280 (70)
5	739-335	220 (55)
6	739-336	180 (45)
7	739-337	160 (40)
8	739-338	140 (35)
9	739-339	120 (30)
10	739-340	120 (30)
12	739-342	100 (25)

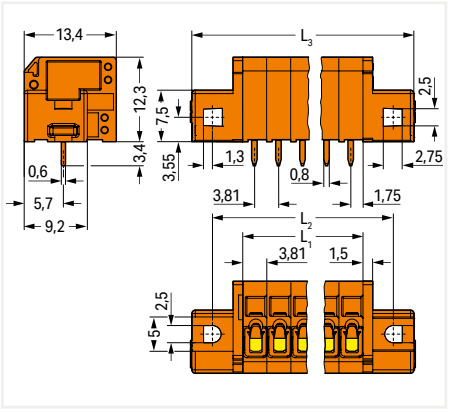


L = (pole no. x pin spacing) + 3.5 mm + 1.5 mm

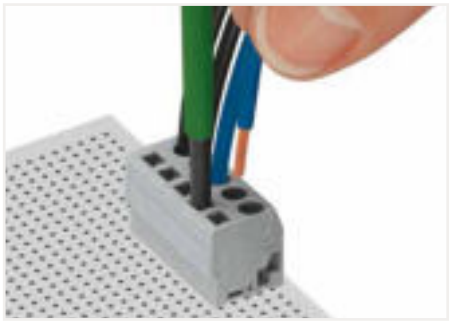
Mounting type: Mounting flange

739-336/001-000

Pole No.	Item No.	PU (SPU)
2	739-332/001-000	200 (50)
3	739-333/001-000	180 (45)
4	739-334/001-000	140 (35)
5	739-335/001-000	140 (35)
6	739-336/001-000	120 (30)
7	739-337/001-000	180 (45)
8	739-338/001-000	100 (25)
9	739-339/001-000	80 (20)
10	739-340/001-000	80 (20)
12	739-342/001-000	60 (15)



L_1 = pole no. x pin spacing
L_2 = L_1 + 8.8 mm
L_3 = L_1 + 14.8 mm



Inserting a conductor parallel to screwdriver actuation – 739 Series.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

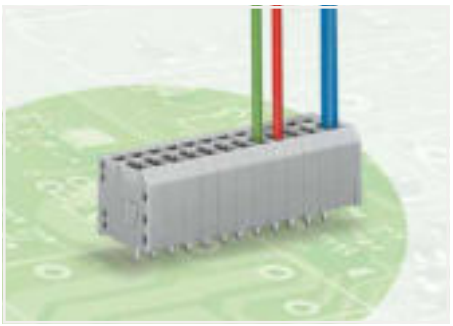
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

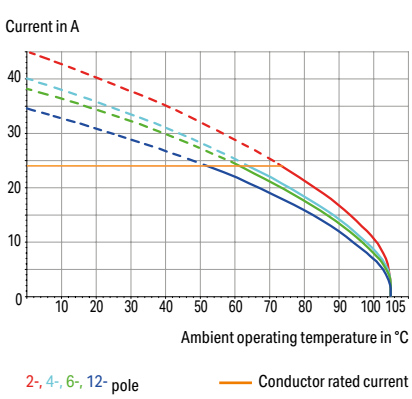
PCB terminal block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	5 mm / 0.197 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	12 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter with tolerance	1.6 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

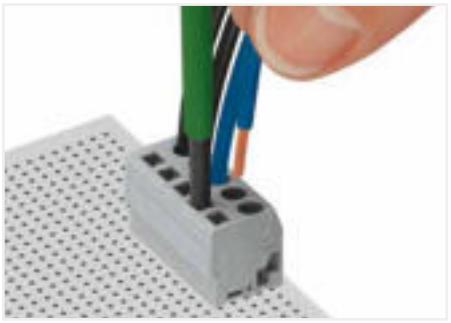
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 739 Series

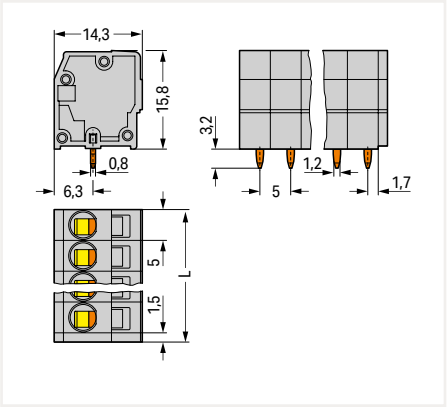
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

739-112



Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-102	400 (100)
3	739-103	280 (70)
4	739-104	220 (55)
5	739-105	180 (45)
6	739-106	140 (35)
7	739-107	120 (30)
8	739-108	100 (25)
9	739-109	100 (25)
10	739-110	80 (20)
12	739-112	60 (15)
16	739-116	40 (10)
24	739-124	20 (5)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

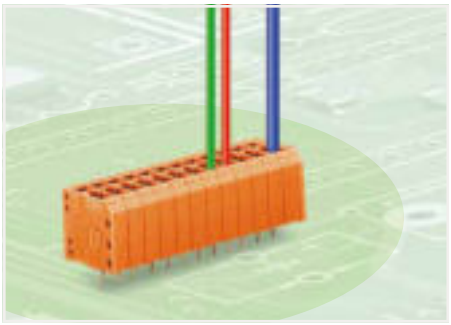
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

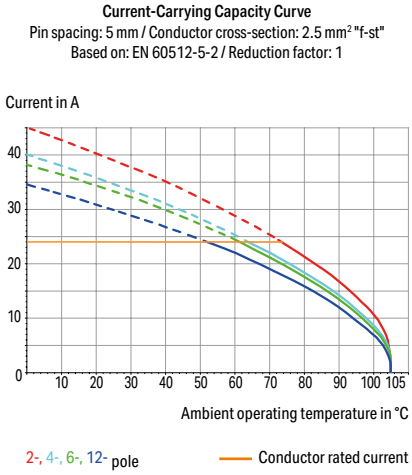
PCB terminal block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	5.08 mm / 0.2 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	12 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter with tolerance	1.6 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

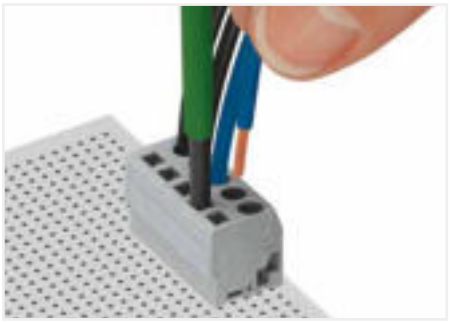
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 739 Series

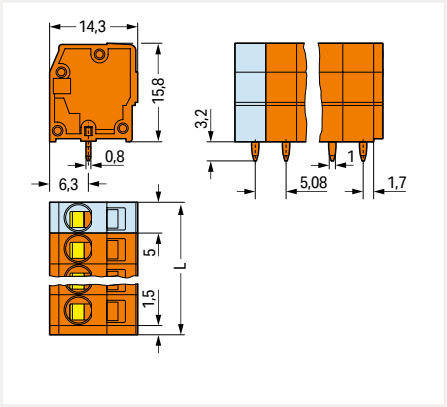
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

739-162



Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-152	400 (100)
3	739-153	280 (70)
4	739-154	220 (55)
5	739-155	160 (40)
6	739-156	140 (35)
7	739-157	120 (30)
8	739-158	100 (25)
9	739-159	100 (25)
10	739-160	80 (20)
12	739-162	60 (15)
16	739-166	40 (10)
24	739-174	20 (5)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

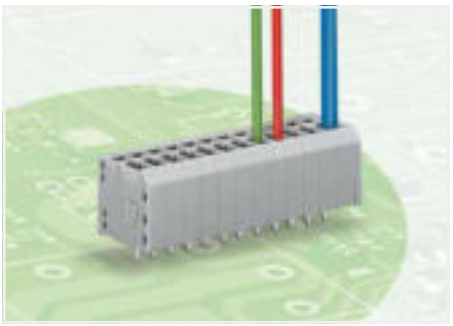
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

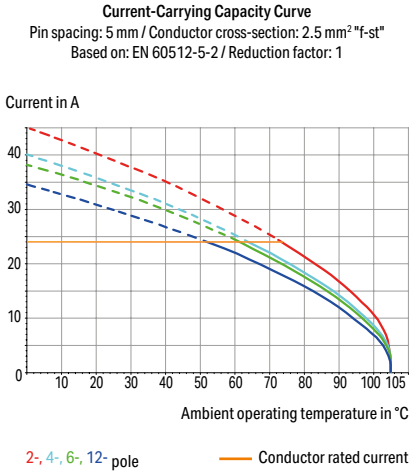
PCB terminal block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 7.5 mm / 0.295 inch ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	7.5 mm / 0.295 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	8 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter with tolerance	1.6 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

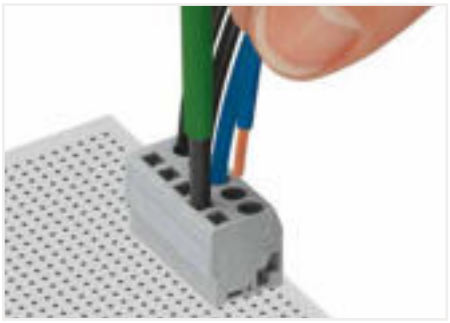
Ferrule	Page 879
Marking	Page 865
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

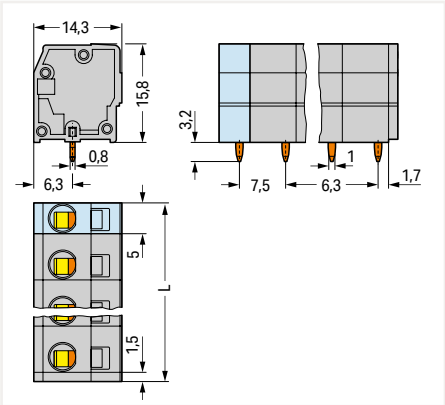
PCB terminal block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 7.5 mm / 0.295 inch ▸ Color: gray



Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-202	340 (85)
3	739-203	220 (55)
4	739-204	160 (40)
5	739-205	120 (30)
6	739-206	100 (25)
7	739-207	80 (20)
8	739-208	80 (20)
9	739-209	60 (15)
10	739-210	60 (15)
12	739-212	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

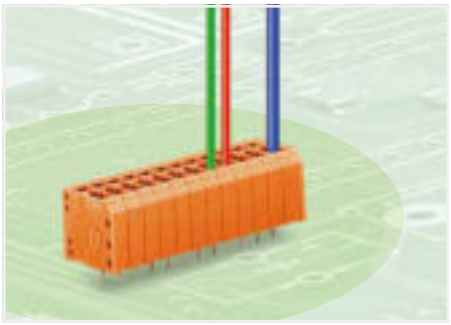
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

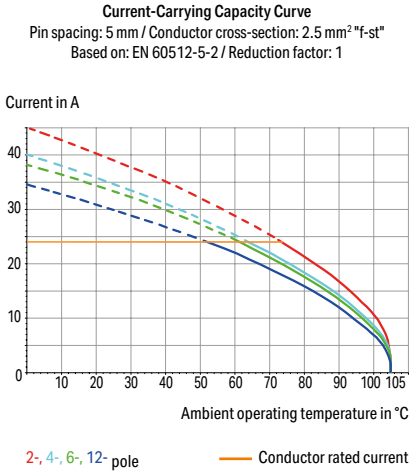
PCB terminal block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 7.62 mm / 0.3 inch ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	7.62 mm / 0.3 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	8 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter with tolerance	1.6 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

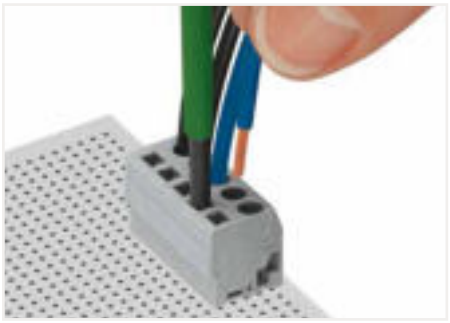
Ferrule	Page 879
Marking	Page 865
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

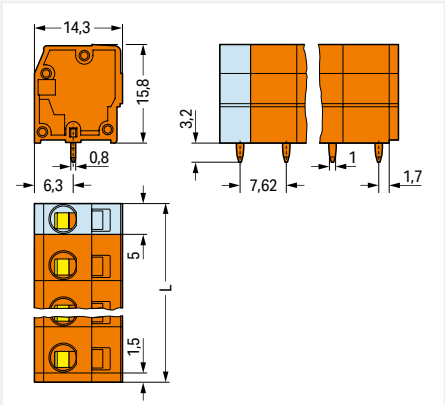
PCB terminal block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 7.62 mm / 0.3 inch ▸ Color: orange



Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-232	320 (80)
3	739-233	220 (55)
4	739-234	160 (40)
5	739-235	120 (30)
6	739-236	100 (25)
7	739-237	80 (20)
8	739-238	80 (20)
9	739-239	60 (15)
10	739-240	60 (15)
12	739-242	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

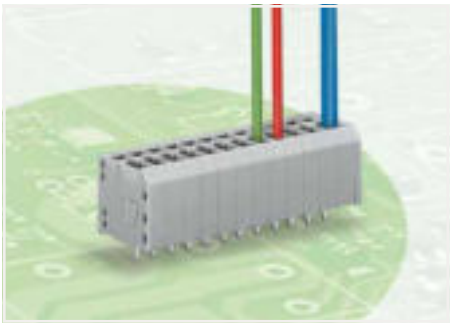
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

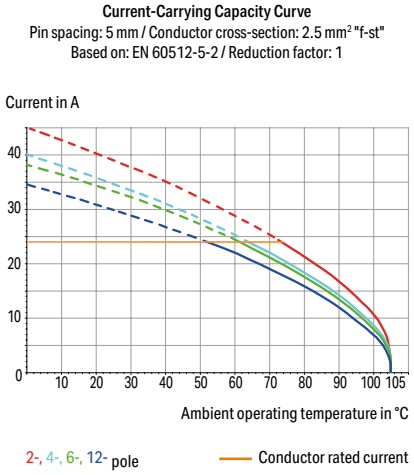
PCB terminal block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 10 mm / 0.394 inch ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	10 mm / 0.394 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	20 A	12 A	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	12 A	12 A	5 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter with tolerance	1.6 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 866
Tool	Page 870

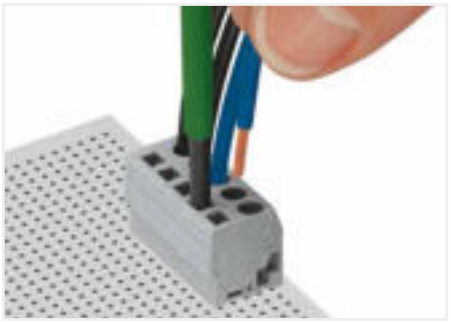
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 739 Series

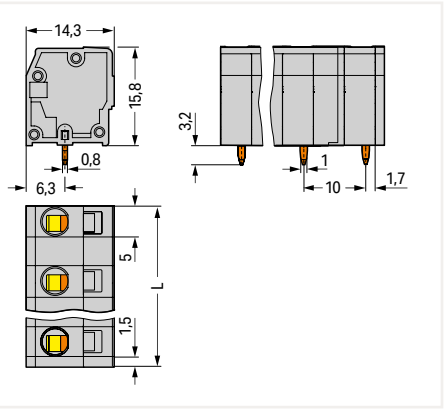
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 10 mm / 0.394 inch ▸ Color: gray

739-3205



Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-3202	280 (70)
3	739-3203	180 (45)
4	739-3204	120 (30)
9	739-3205	100 (25)
10	739-3210	40 (10)
11	739-3206	80 (20)
12	739-3212	40 (10)
13	739-3207	60 (15)
15	739-3208	60 (15)
17	739-3209	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 740 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1

- PCB terminal strips with screwdriver-actuated CAGE CLAMP® connection
- Top-of-unit actuation
- Pin and dimensions compatible with screw-type terminal blocks of a similar design
- PCB terminal strips may be positioned adjacently without losing any poles

Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	300 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	16 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	5.1 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

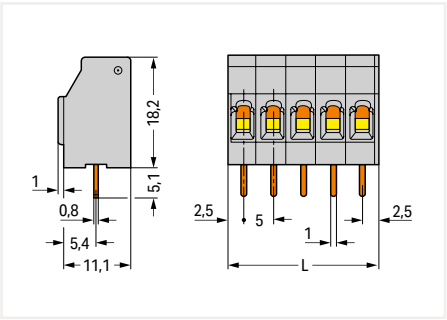
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 740 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

Pole No.	Item No.	PU (SPU)
2	740-102	460 (115)
3	740-103	300 (75)
4	740-104	240 (60)
5	740-105	180 (45)
6	740-106	140 (35)
7	740-107	120 (30)
8	740-108	100 (25)
9	740-109	100 (25)
10	740-110	80 (20)
12	740-112	60 (15)
16	740-116	60 (15)
24	740-124	40 (10)



L = pole no. x pin spacing

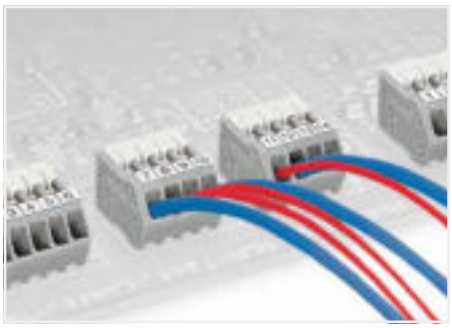
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

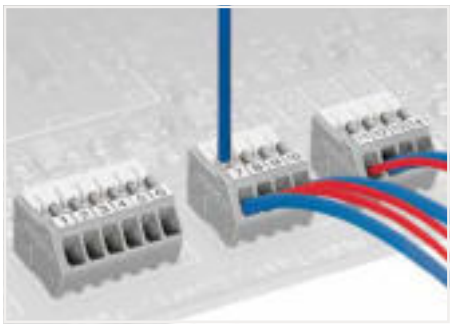
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

218 Series
Description and Installation

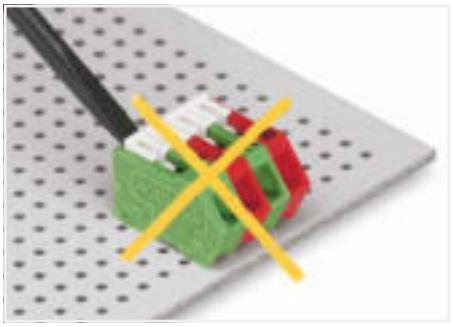
Terminating stranded conductors in confined spaces requires a great deal of patience, unless you use the new 218 Series PCB Terminal Strips. The clamping units of these strips can be held open during termination process via integrated locking slide.



Terminating 0.75 mm² (18 AWG) conductors is possible; however, insulation diameter allows only every other clamping unit to be terminated with this conductor size.

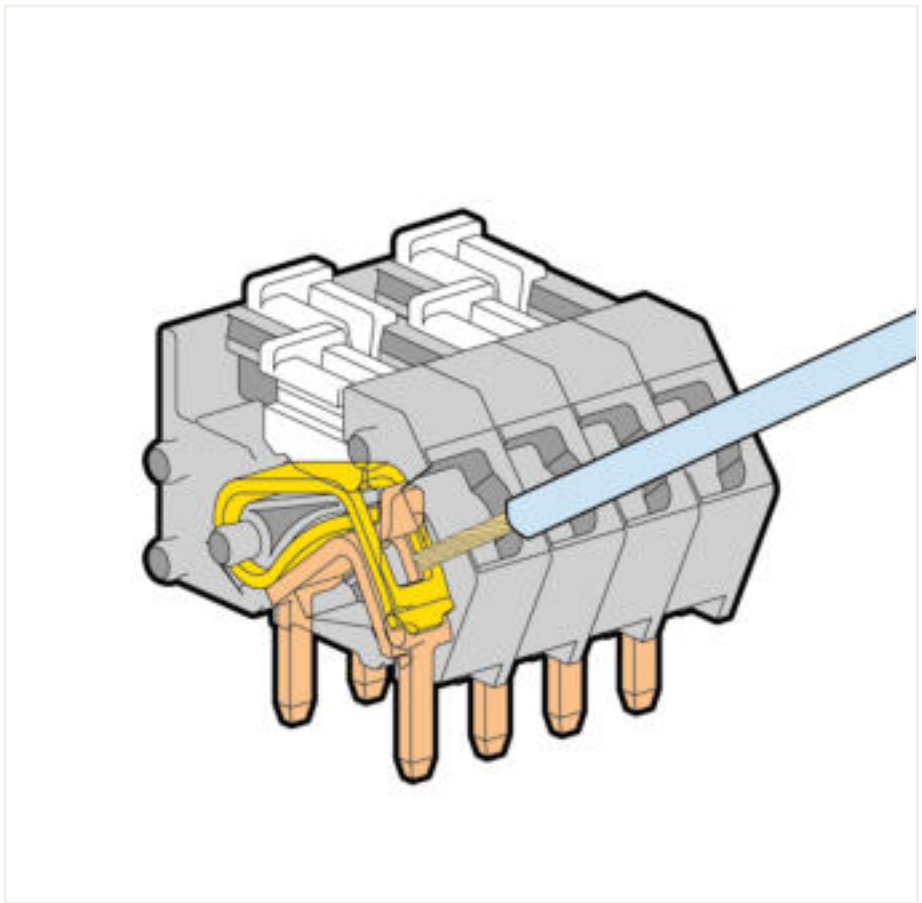


Testing directly on the clamping spring.



Incorrect – do not operate the locking slides from the back.

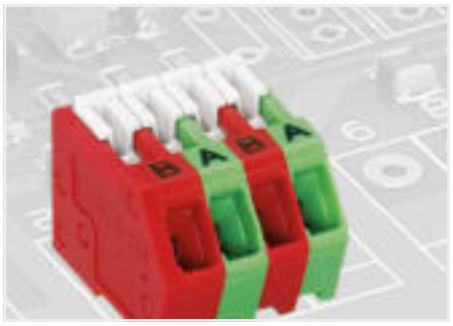
Conductor termination: To momentarily open the clamping unit, use screwdriver and then insert a stripped conductor. To open clamping unit for an extended period, move locking slide toward conductor entry hole. Then fully insert stripped conductor and move locking slide back to original position (also possible to perform with fingernail).



218 Series

Insulating housings are available in different colors.

Labeling with self-adhesive marking strips.

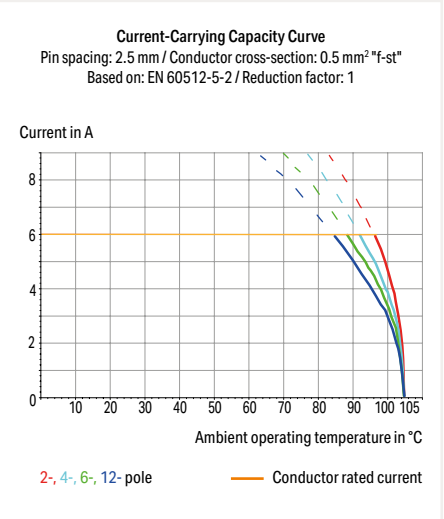


Labeling via factory direct marking.

PCB terminal block ▸ 218 Series
CAGE CLAMP® ▸ Actuation type: Slider ▸ 0.5 mm² ▸ Color: gray

1

- Terminal strips are just 8.1 mm tall and feature an innovative, locking slide-actuated CAGE CLAMP®
- Several clamping units can be held open simultaneously
- Easily terminate stranded conductors in tight spaces (e.g., bus connectors)



Electrical Data			
Pin spacing	**2.54 mm / 0.1 inch;2.5 mm / 0.098 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	80 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-
Approbations per	CSA		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	40 °
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 mm²
Note (conductor cross-section)	Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	2.8 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

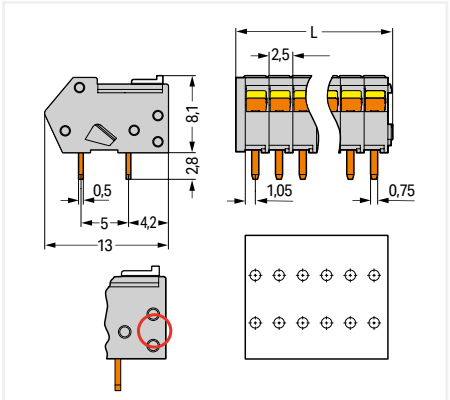
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 218 Series

CAGE CLAMP® ▸ Actuation type: Slider ▸ 0.5 mm² ▸ Color: gray

Pin spacing: 2.5 mm / 0.098 inch

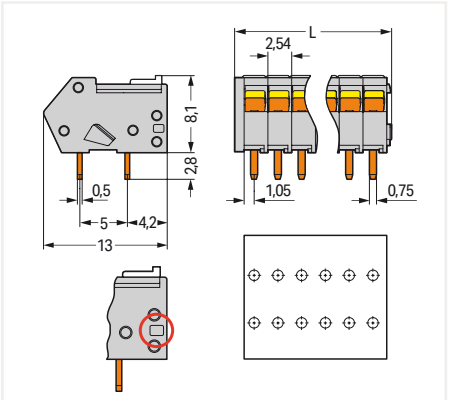
Pole No.	Item No.	PU (SPU)
2	218-102	1000 (100)
3	218-103	1000 (100)
4	218-104	500 (100)
5	218-105	500 (100)
6	218-106	280 (70)
7	218-107	240 (60)
8	218-108	220 (55)
9	218-109	200 (50)
10	218-110	180 (45)
11	218-111	160 (40)
12	218-112	140 (35)
13	218-113	140 (35)
14	218-114	120 (30)
15	218-115	120 (30)
16	218-116	100 (25)
17	218-117	100 (25)
18	218-118	100 (25)
19	218-119	80 (20)
20	218-120	80 (20)
21	218-121	80 (20)
22	218-122	80 (20)
23	218-123	80 (20)
24	218-124	60 (15)



L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 2.54 mm / 0.1 inch

Pole No.	Item No.	PU (SPU)
2	218-502	1000 (100)
3	218-503	1000 (100)
4	218-504	500 (100)
5	218-505	500 (100)
6	218-506	280 (70)
7	218-507	240 (60)
8	218-508	220 (55)
9	218-509	180 (45)
10	218-510	160 (40)
11	218-511	160 (40)
12	218-512	140 (35)
13	218-513	140 (35)
14	218-514	120 (30)
15	218-515	120 (30)
16	218-516	100 (25)
17	218-517	100 (25)
18	218-518	100 (25)
19	218-519	80 (20)
20	218-520	80 (20)
21	218-521	80 (20)
22	218-522	80 (20)
23	218-523	80 (20)
24	218-524	60 (15)



L = (pole no. x pin spacing) + 1.5 mm
A groove at the back of the terminal strip indicates the 2.54 mm pin spacing (red circle).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

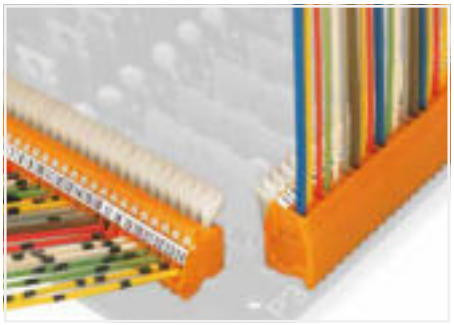
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

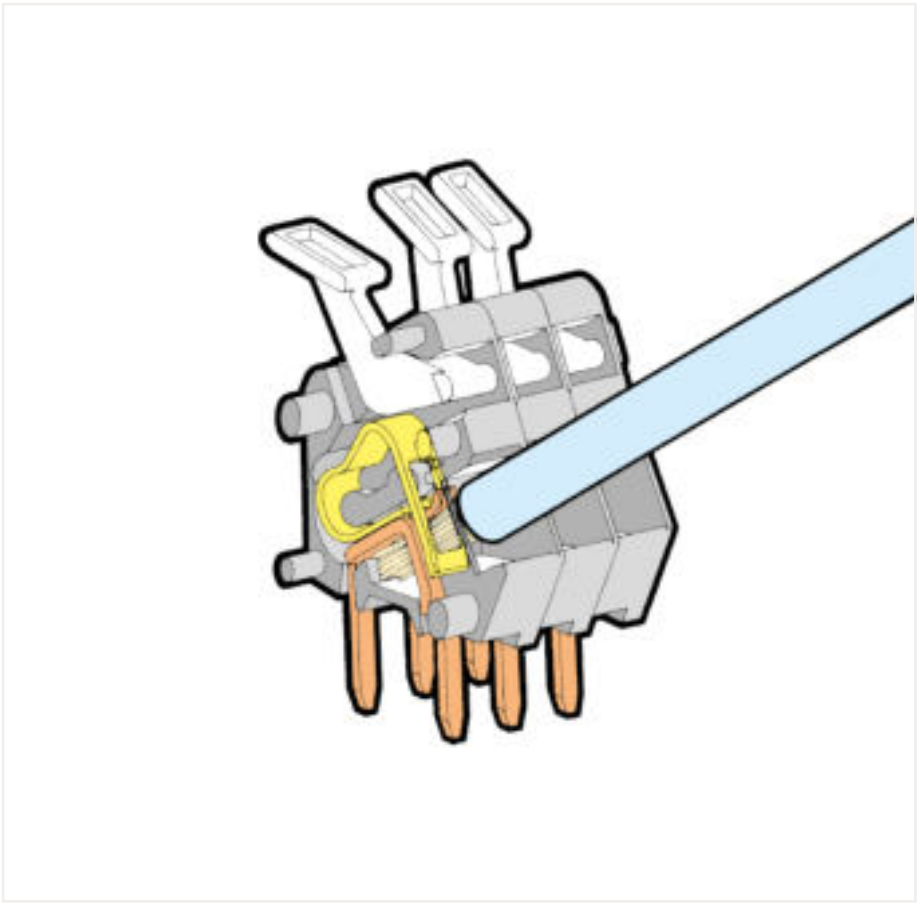
233 and 234 Series
Description and Installation

Inserting/removing a conductor.

Nominal cross-section: 0.5 mm² (20 AWG);
0.75 mm² (18 AWG) only in every other position

Labeling via factory direct marking or self-adhesive marking strips.





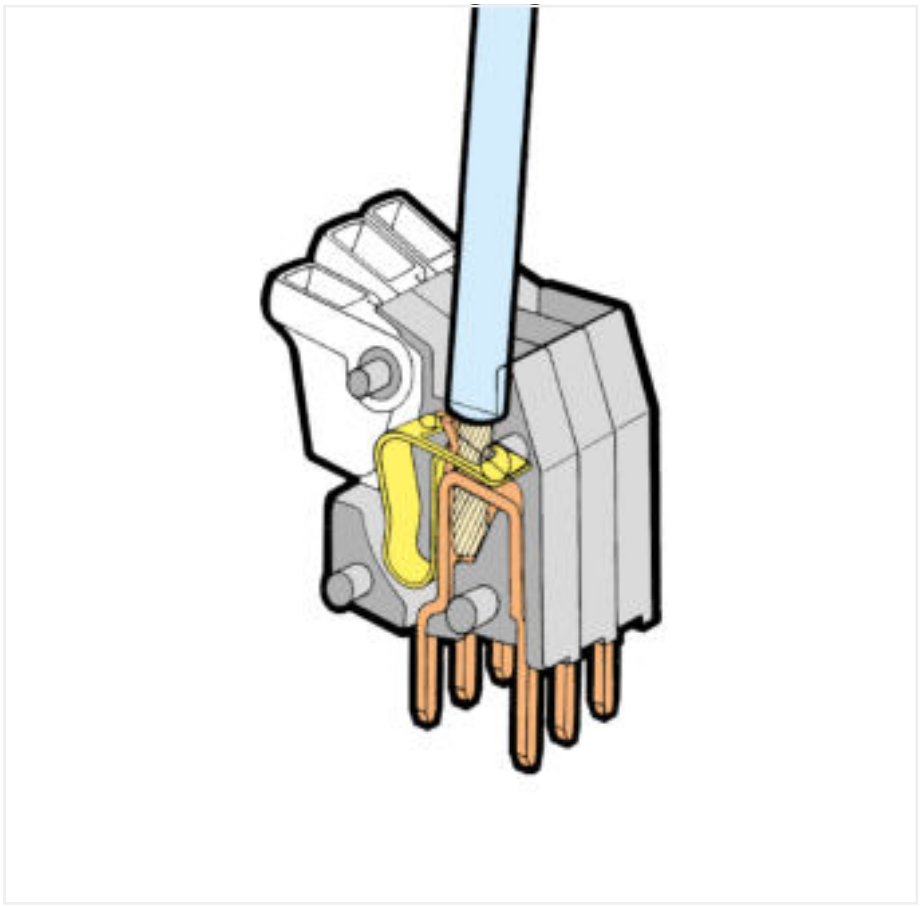
233 Series

234 Series
Description and Installation

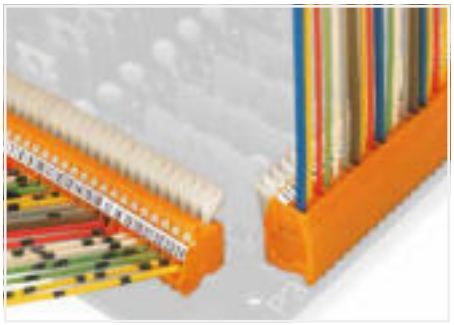
Inserting/removing a conductor.

Nominal cross-section: 0.5 mm² (20 AWG);
0.75 mm² (18 AWG) only in every other position

Labeling via self-adhesive marking strips or factory direct marking.



234 Series

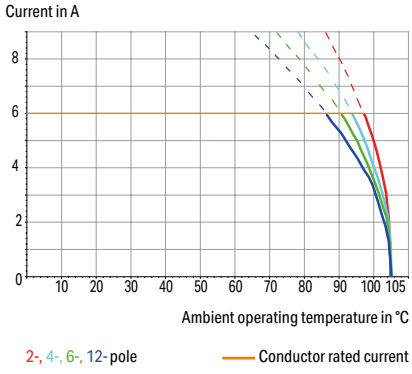


PCB terminal block ▸ 233 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm²

1

- Compact PCB terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Double solder pins for high mechanical
- Custom color combinations

Current-Carrying Capacity Curve
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**2.54 mm / 0.1 inch**	**2.5 mm / 0.098 inch**	
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-
Approbations per	CSA		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	30 °
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 mm²
Note (conductor cross-section)	Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Tool	Page 870

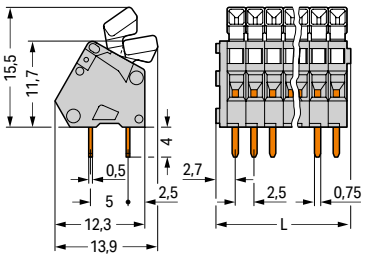
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 233 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm²

Pin spacing: 2.5 mm / 0.098 inch ▸ Color: gray

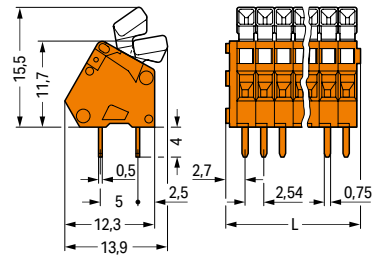
Pole No.	Item No.	PU (SPU)
2	233-202	600 (100)
3	233-203	500 (125)
4	233-204	400 (100)
5	233-205	340 (85)
6	233-206	280 (70)
7	233-207	240 (60)
8	233-208	220 (55)
9	233-209	200 (50)
10	233-210	180 (45)
12	233-212	140 (35)



L = (pole no. x pin spacing) + 2.3 mm

Pin spacing: 2.54 mm / 0.1 inch ▸ Color: orange

Pole No.	Item No.	PU (SPU)
2	233-502	600 (100)
3	233-503	500 (125)
4	233-504	400 (100)
5	233-505	340 (85)
6	233-506	280 (70)
7	233-507	240 (60)
8	233-508	220 (55)
9	233-509	200 (50)
10	233-510	180 (45)
12	233-512	140 (35)



L = (pole no. x pin spacing) + 2.3 mm

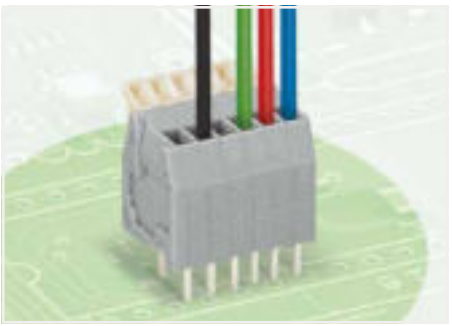
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

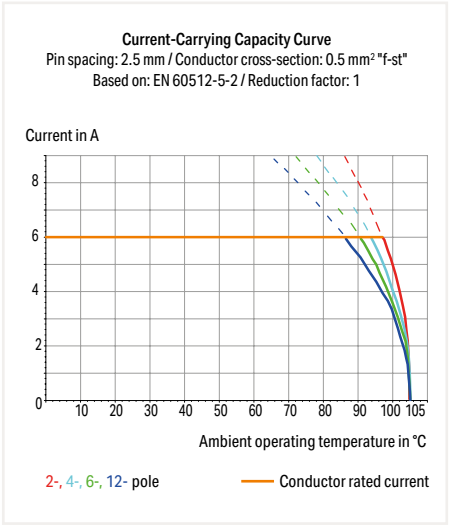
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 234 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm²

1



- PCB terminal strips with push-buttons and CAGE CLAMP® connection
- Double solder pins for high mechanical stability on PCB
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data			
Pin spacing	**2.54 mm / 0.1 inch**	**2.5 mm / 0.098 inch**	
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-
Approbations per	CSA		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

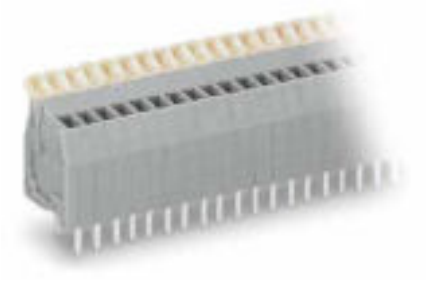
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

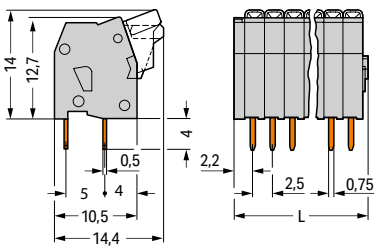
Ferrule	Page 879
Marking	Page 864
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 234 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm²

Pin spacing: 2.5 mm / 0.098 inch ▸ Color: gray

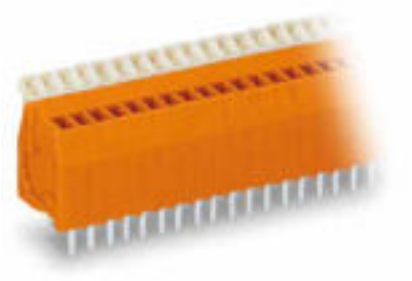


Pole No.	Item No.	PU (SPU)
2	234-202	600 (100)
3	234-203	520 (130)
4	234-204	400 (100)
5	234-205	340 (85)
6	234-206	280 (70)
7	234-207	240 (60)
8	234-208	220 (55)
9	234-209	200 (50)
10	234-210	180 (45)
12	234-212	140 (35)

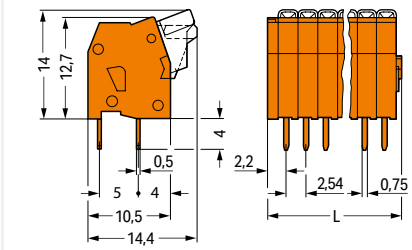


L = (pole no. x pin spacing) + 2.2 mm

Pin spacing: 2.54 mm / 0.1 inch ▸ Color: orange



Pole No.	Item No.	PU (SPU)
2	234-502	600 (100)
3	234-503	520 (130)
4	234-504	400 (100)
5	234-505	340 (85)
6	234-506	280 (70)
7	234-507	240 (60)
8	234-508	220 (55)
9	234-509	200 (50)
10	234-510	180 (45)
12	234-512	140 (35)



L = (pole no. x pin spacing) + 2.2 mm

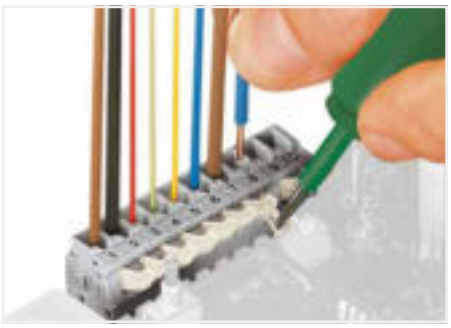
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

255, 256 and 257 Series
Description and Installation

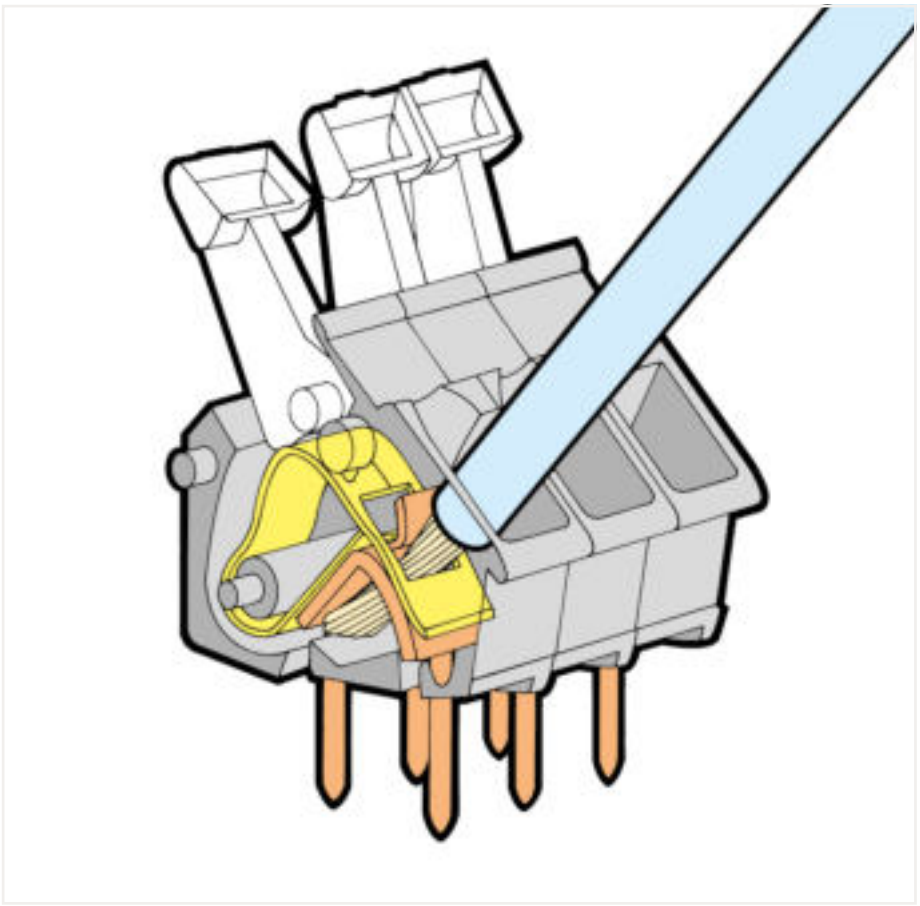
Inserting/removing a conductor – 256 Series.



Inserting/removing a conductor – 255 Series.

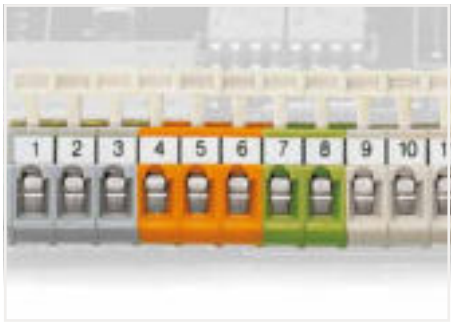
Inserting/removing a conductor via finger-operated lever – 255 Series.

Inserting/removing a conductor via finger-operated lever – 256 Series.

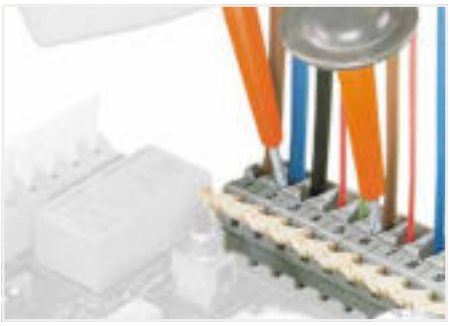


255, 256 and 257 Series

Possible conductor arrangement with terminal strips staggered (for 256 Series only).



Formation of groups using housings of different colors.

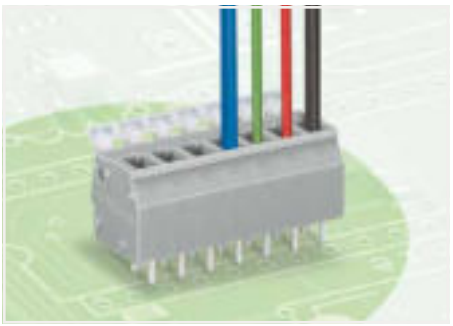


Testing with test probes.

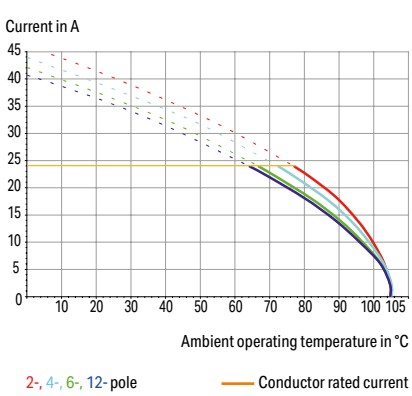
Testing with test plug modules.

Stackable PCB terminal block ▸ 255 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm²

1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

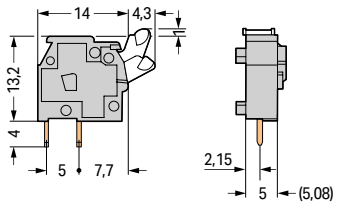
For approvals and corresponding ratings, visit www.wago.com

Stackable PCB terminal block ▸ 255 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

255-401

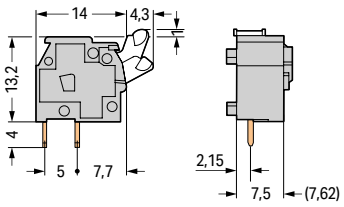
Color	Item No.	PU (SPU)
gray	255-401	500 (100)
blue	255-744	500 (100)
orange	255-746	500 (100)
black	255-748	500 (100)
yellow	255-741	500 (100)
light gray	255-743	500 (100)
light green	255-747	500 (100)
red	255-740	500 (100)
dark gray	255-742	500 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

255-501

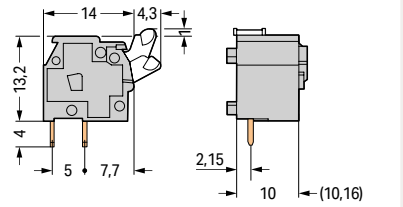
Color	Item No.	PU (SPU)
gray	255-501	400 (100)
blue	255-754	400 (100)
orange	255-756	400 (100)
black	255-758	400 (100)
yellow	255-751	400 (100)
light gray	255-753	400 (100)
light green	255-757	400 (100)
red	255-750	400 (100)
dark gray	255-752	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch

255-601

Color	Item No.	PU (SPU)
gray	255-601	300 (100)
blue	255-764	300 (100)
orange	255-766	300 (100)
black	255-768	300 (100)
yellow	255-761	300 (100)
light gray	255-763	300 (100)
light green	255-767	300 (100)
red	255-760	300 (100)
dark gray	255-762	300 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; Snap-on type

Color	Item No.	PU (SPU)
gray	255-100	2000 (100)

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
blue	255-400	2000 (100)
orange	255-600	2000 (100)
black	255-800	2000 (100)
light gray	255-300	2000 (100)
light green	255-700	2000 (100)
red	255-500	2000 (100)
dark gray	255-200	2000 (100)

Intermediate plate; Extends pin spacing; Width: 5.08 mm / 0.2 inch

Color	Item No.	PU (SPU)
gray	255-801	500 (100)

Intermediate plate; Extends pin spacing; Width: 7.62 mm / 0.3 inch

Color	Item No.	PU (SPU)
gray	255-811	400 (100)

Intermediate plate; Extends pin spacing; Width: 10.16 mm / 0.4 inch

Color	Item No.	PU (SPU)
gray	255-821	500 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

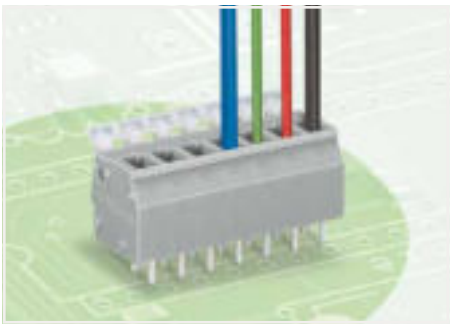
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors
- Versions for Ex e II and Ex i

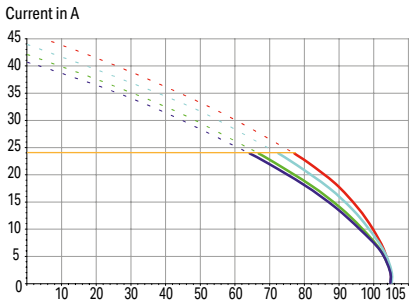
PCB terminal block ▸ 255 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Color: gray

1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	90 °
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

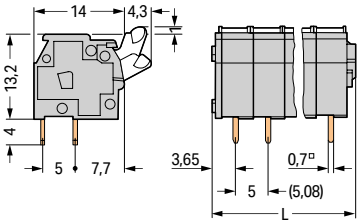
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 255 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

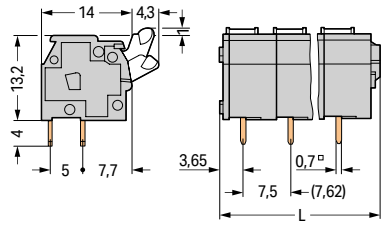
Pole No.	Item No.	PU (SPU)
2	255-402	400 (100)
3	255-403	280 (70)
4	255-404	200 (50)
5	255-405	160 (40)
6	255-406	140 (35)
7	255-407	120 (30)
8	255-408	100 (25)
9	255-409	100 (25)
10	255-410	80 (20)
12	255-412	60 (15)



L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

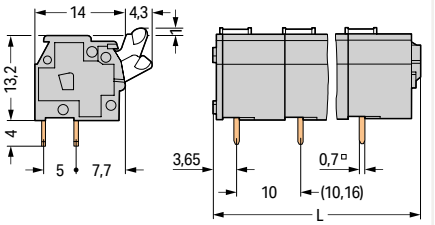
Pole No.	Item No.	PU (SPU)
2	255-502	280 (70)
3	255-503	180 (45)
4	255-504	140 (35)
5	255-505	120 (30)
6	255-506	100 (25)
7	255-507	80 (20)
8	255-508	60 (15)
9	255-509	60 (15)
10	255-510	60 (15)
12	255-512	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Pole No.	Item No.	PU (SPU)
2	255-602	200 (50)
3	255-603	140 (35)
4	255-604	100 (25)
5	255-605	80 (20)
6	255-606	60 (15)
7	255-607	60 (15)
8	255-608	60 (15)
9	255-609	40 (10)
10	255-610	40 (10)
12	255-612	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

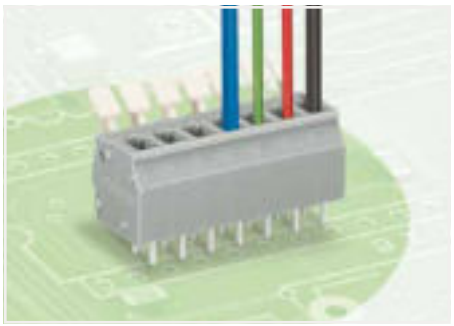
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

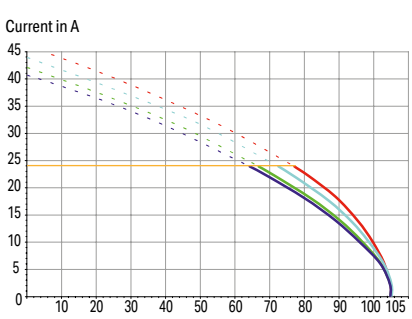
PCB terminal block ▸ 255 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Color: gray

1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	90 °
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Commoning strips	Page 262

See technical section for further information

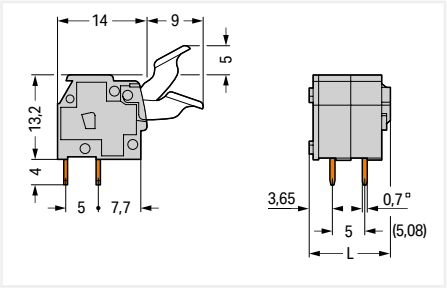
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 255 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

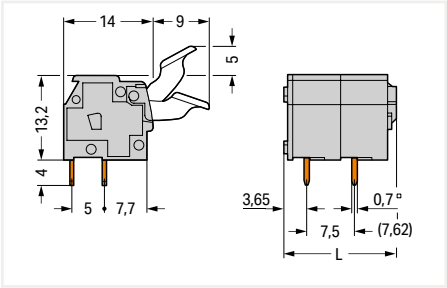
Pole No.	Item No.	PU (SPU)
2	255-402/333-000	400 (100)
3	255-403/333-000	280 (70)
4	255-404/333-000	200 (50)
5	255-405/333-000	160 (40)
6	255-406/333-000	140 (35)
7	255-407/333-000	120 (30)
8	255-408/333-000	100 (25)
9	255-409/333-000	100 (25)
10	255-410/333-000	80 (20)
12	255-412/333-000	60 (15)



L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

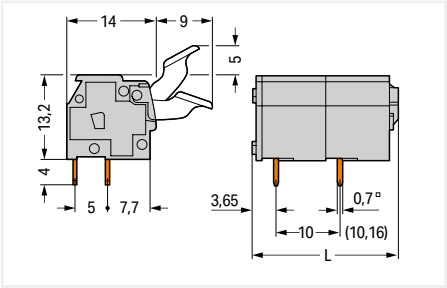
Pole No.	Item No.	PU (SPU)
2	255-502/333-000	280 (70)
3	255-503/333-000	180 (45)
4	255-504/333-000	140 (35)
5	255-505/333-000	120 (30)
6	255-506/333-000	100 (25)
7	255-507/333-000	80 (20)
8	255-508/333-000	60 (15)
9	255-509/333-000	60 (15)
10	255-510/333-000	60 (15)
12	255-512/333-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Pole No.	Item No.	PU (SPU)
2	255-602/333-000	200 (50)
3	255-603/333-000	140 (35)
4	255-604/333-000	100 (25)
5	255-605/333-000	80 (20)
6	255-606/333-000	60 (15)
7	255-607/333-000	60 (15)
8	255-608/333-000	60 (15)
9	255-609/333-000	40 (10)
10	255-610/333-000	40 (10)
12	255-612/333-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

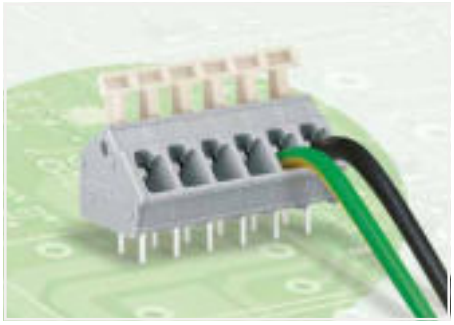
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

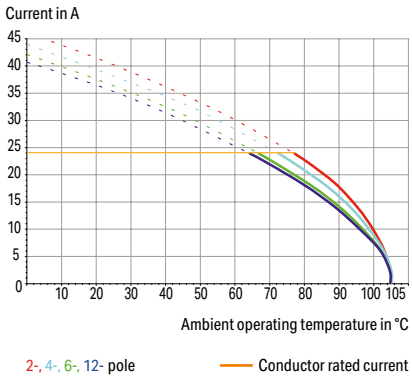
Stackable PCB terminal block ▸ 256 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm²

1



- PCB modular terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

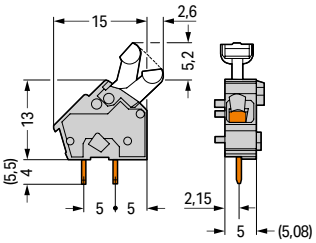
For approvals and corresponding ratings, visit www.wago.com

Stackable PCB terminal block ▸ 256 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

256-401

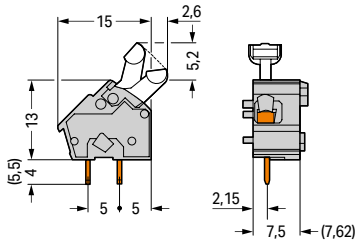
Color	Item No.	PU (SPU)
gray	256-401	600 (100)
blue	256-744	600 (100)
orange	256-746	600 (100)
light gray	256-743	600 (100)
light green	256-747	600 (100)
red	256-740	600 (100)
dark gray	256-742	600 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

256-501

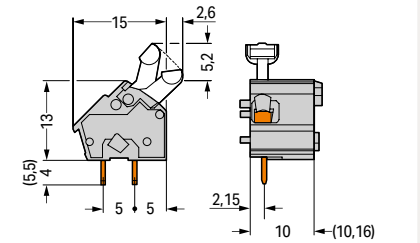
Color	Item No.	PU (SPU)
gray	256-501	400 (100)
blue	256-754	400 (100)
orange	256-756	400 (100)
light gray	256-753	400 (100)
light green	256-757	400 (100)
red	256-750	400 (100)
dark gray	256-752	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch

256-601

Color	Item No.	PU (SPU)
gray	256-601	300 (100)
blue	256-764	300 (100)
orange	256-766	300 (100)
light gray	256-763	300 (100)
light green	256-767	300 (100)
red	256-760	300 (100)
dark gray	256-762	300 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; Snap-on type

Color	Item No.	PU (SPU)
gray	256-100	2000 (100)
light gray	256-300	2000 (100)
dark gray	256-200	2000 (100)

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
blue	256-400	2000 (100)
orange	256-600	2000 (100)
black	256-800	2000 (100)
light green	256-700	2000 (100)
red	256-500	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

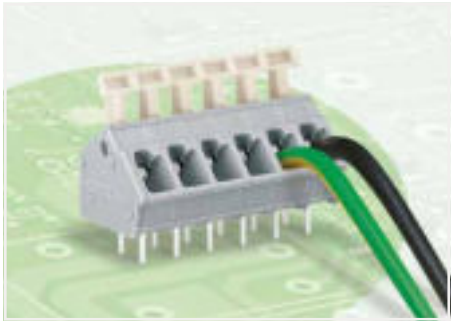
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors
- Versions for Ex e II and Ex i
- Solder pin length: 5.5 mm

PCB terminal block ▸ 256 Series

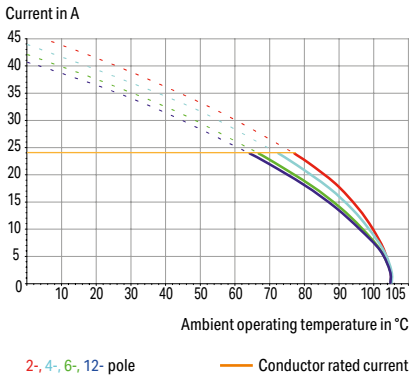
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Color: gray

1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

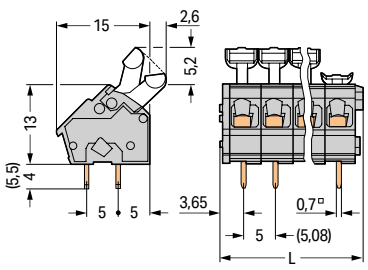
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Color: gray

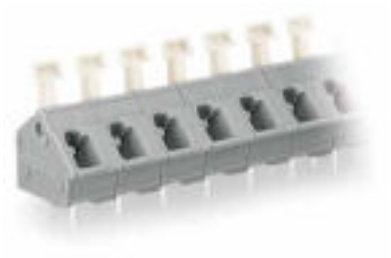
Pin spacing: 5/5.08 mm / 0.197/0.2 inch

Pole No.	Item No.	PU (SPU)
2	256-402	400 (100)
3	256-403	280 (70)
4	256-404	200 (50)
5	256-405	160 (40)
6	256-406	140 (35)
7	256-407	120 (30)
8	256-408	100 (25)
9	256-409	100 (25)
10	256-410	80 (20)
12	256-412	60 (15)

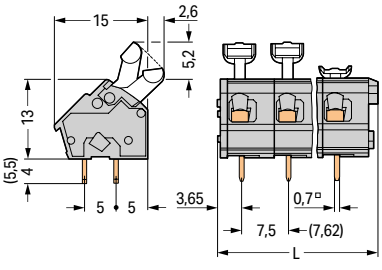


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



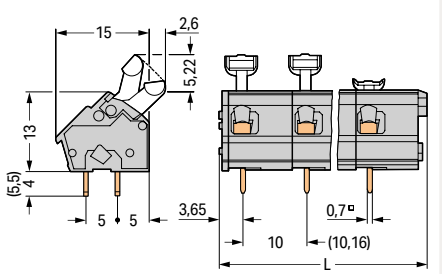
Pole No.	Item No.	PU (SPU)
2	256-502	280 (70)
3	256-503	180 (45)
4	256-504	140 (35)
5	256-505	120 (30)
6	256-506	100 (25)
7	256-507	80 (20)
8	256-508	60 (15)
9	256-509	60 (15)
10	256-510	60 (15)
12	256-512	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Pole No.	Item No.	PU (SPU)
2	256-602	200 (50)
3	256-603	140 (35)
4	256-604	100 (25)
5	256-605	80 (20)
6	256-606	60 (15)
7	256-607	60 (15)
8	256-608	60 (15)
9	256-609	40 (10)
10	256-610	40 (10)
12	256-612	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

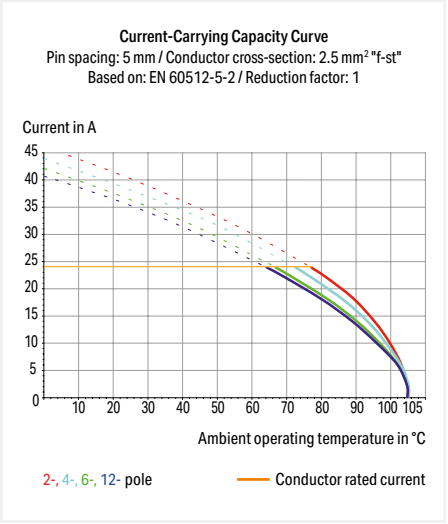
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Stackable PCB terminal block ▸ 256 Series
CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm²

1

- PCB terminal blocks with angled push-buttons and CAGE CLAMP® connection
- Version with angled push-buttons for easy top-of-unit actuation
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

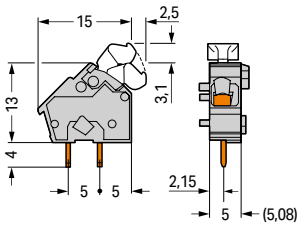
Stackable PCB terminal block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

256-461

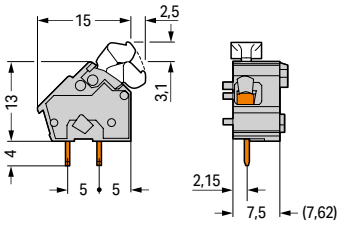
Color	Item No.	PU (SPU)
gray	256-461	600 (100)
blue	256-844	600 (100)
orange	256-846	600 (100)
light gray	256-843	600 (100)
light green	256-847	600 (100)
red	256-840	600 (100)
dark gray	256-842	600 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

256-561

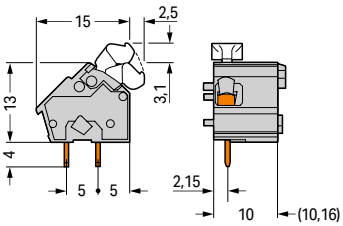
Color	Item No.	PU (SPU)
gray	256-561	400 (100)
blue	256-854	400 (100)
orange	256-856	400 (100)
light gray	256-853	400 (100)
light green	256-857	400 (100)
red	256-850	400 (100)
dark gray	256-852	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch

256-661

Color	Item No.	PU (SPU)
gray	256-661	300 (100)
blue	256-864	300 (100)
orange	256-866	300 (100)
light gray	256-863	300 (100)
light green	256-867	300 (100)
red	256-860	300 (100)
dark gray	256-862	300 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; Snap-on type

Color	Item No.	PU (SPU)
gray	256-100	2000 (100)
light gray	256-300	2000 (100)
dark gray	256-200	2000 (100)

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
blue	256-400	2000 (100)
orange	256-600	2000 (100)
black	256-800	2000 (100)
light green	256-700	2000 (100)
red	256-500	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

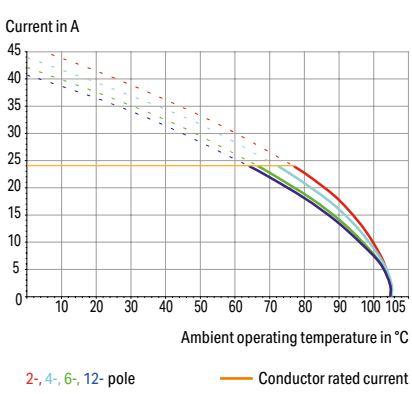
- Other colors
- Versions for Ex e II and Ex i
- Solder pin length: 5.5 mm

PCB terminal block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Color: gray

1

- PCB terminal blocks with angled push-buttons and CAGE CLAMP® connection
- Version with angled push-buttons for easy top-of-unit actuation
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

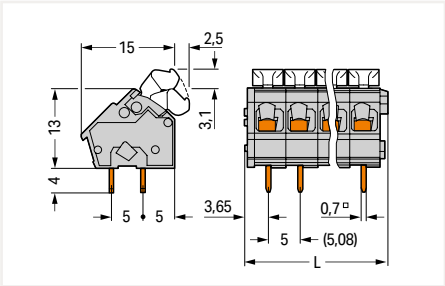
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

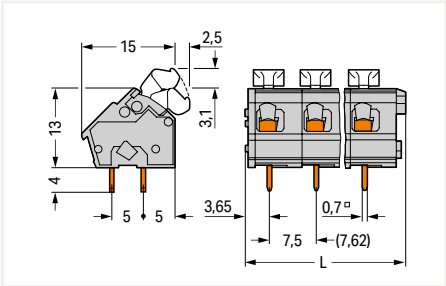
Pole No.	Item No.	PU (SPU)
2	256-402/334-000	400 (100)
3	256-403/334-000	280 (70)
4	256-404/334-000	200 (50)
5	256-405/334-000	160 (40)
6	256-406/334-000	140 (35)
7	256-407/334-000	120 (30)
8	256-408/334-000	100 (25)
9	256-409/334-000	100 (25)
10	256-410/334-000	80 (20)
12	256-412/334-000	60 (15)



L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

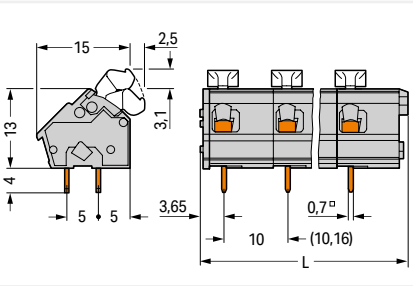
Pole No.	Item No.	PU (SPU)
2	256-502/334-000	280 (70)
3	256-503/334-000	180 (45)
4	256-504/334-000	140 (35)
5	256-505/334-000	120 (30)
6	256-506/334-000	100 (25)
7	256-507/334-000	80 (20)
8	256-508/334-000	60 (15)
9	256-509/334-000	60 (15)
10	256-510/334-000	60 (15)
12	256-512/334-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Pole No.	Item No.	PU (SPU)
2	256-602/334-000	200 (50)
3	256-603/334-000	140 (35)
4	256-604/334-000	100 (25)
5	256-605/334-000	80 (20)
6	256-606/334-000	60 (15)
7	256-607/334-000	60 (15)
8	256-608/334-000	60 (15)
9	256-609/334-000	40 (10)
10	256-610/334-000	40 (10)
12	256-612/334-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

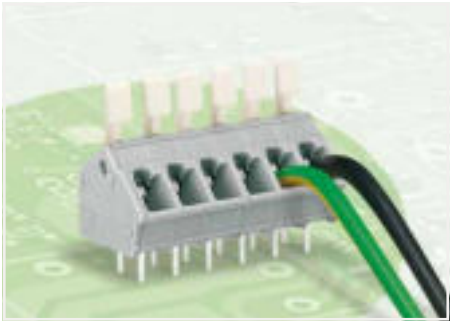
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

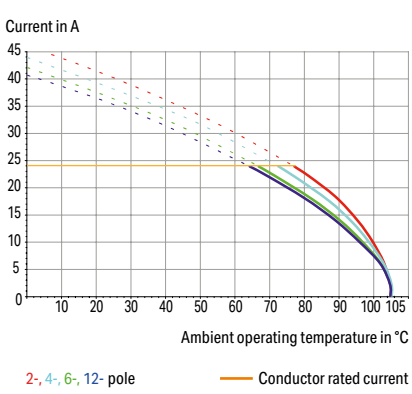
PCB terminal block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Color: gray

1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

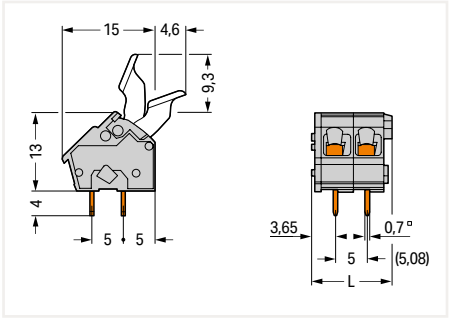
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Commoning strips	Page 262
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

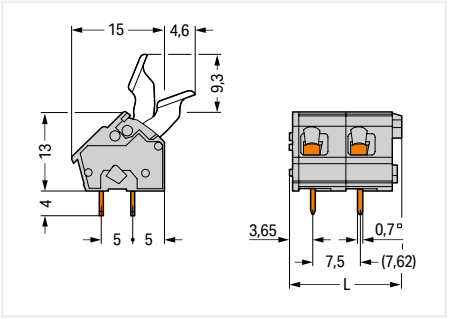
Pole No.	Item No.	PU (SPU)
2	256-402/333-000	400 (100)
3	256-403/333-000	280 (70)
4	256-404/333-000	200 (50)
5	256-405/333-000	160 (40)
6	256-406/333-000	140 (35)
7	256-407/333-000	120 (30)
8	256-408/333-000	100 (25)
9	256-409/333-000	100 (25)
10	256-410/333-000	80 (20)
12	256-412/333-000	60 (15)



L = (pole no. x pin spacing) + 2.9 mm
For lengths greater than three poles, finger lever operation for center levers may not be possible due to finger size/spacing limitations.

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

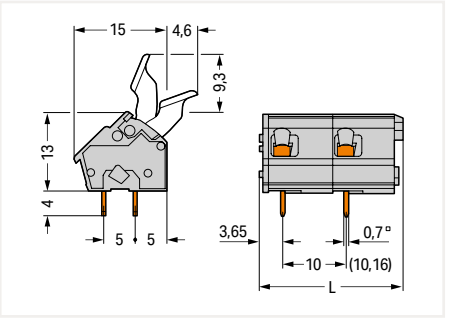
Pole No.	Item No.	PU (SPU)
2	256-502/333-000	280 (70)
3	256-503/333-000	180 (45)
4	256-504/333-000	140 (35)
5	256-505/333-000	120 (30)
6	256-506/333-000	100 (25)
7	256-507/333-000	80 (20)
8	256-508/333-000	60 (15)
9	256-509/333-000	60 (15)
10	256-510/333-000	60 (15)
12	256-512/333-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Pole No.	Item No.	PU (SPU)
2	256-602/333-000	200 (50)
3	256-603/333-000	140 (35)
4	256-604/333-000	100 (25)
5	256-605/333-000	80 (20)
6	256-606/333-000	60 (15)
7	256-607/333-000	60 (15)
8	256-608/333-000	60 (15)
9	256-609/333-000	40 (10)
10	256-610/333-000	40 (10)
12	256-612/333-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

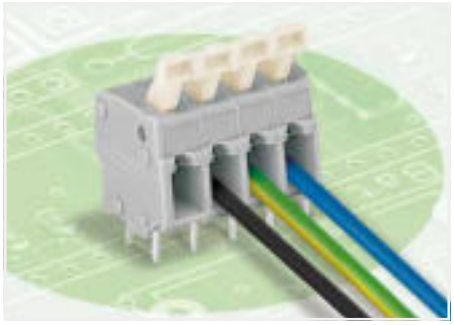
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

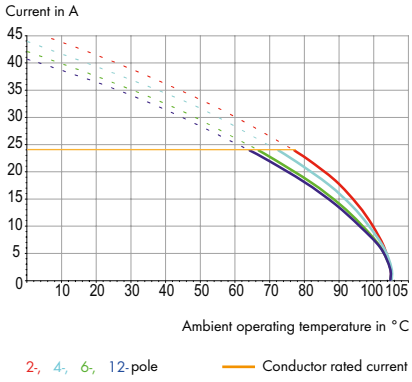
Stackable PCB terminal block ▸ 257 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm²

1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

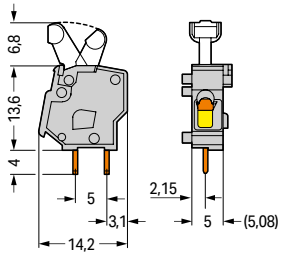
For approvals and corresponding ratings, visit www.wago.com

Stackable PCB terminal block ▸ 257 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

257-401

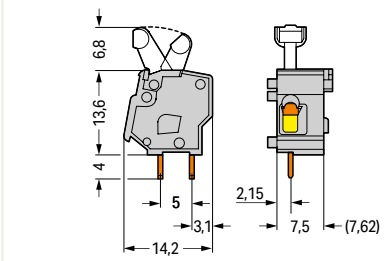
Color	Item No.	PU (SPU)
gray	257-401	500 (100)
blue	257-744	500 (100)
orange	257-746	500 (100)
light gray	257-743	500 (100)
light green	257-747	500 (100)
red	257-740	500 (100)
dark gray	257-742	500 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

257-501

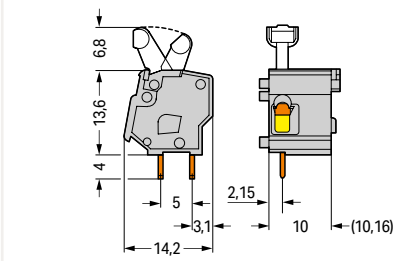
Color	Item No.	PU (SPU)
gray	257-501	400 (100)
blue	257-754	400 (100)
orange	257-756	400 (100)
light gray	257-753	400 (100)
light green	257-757	400 (100)
red	257-750	400 (100)
dark gray	257-752	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch

257-601

Color	Item No.	PU (SPU)
gray	257-601	300 (100)
blue	257-764	300 (100)
orange	257-766	300 (100)
light gray	257-763	300 (100)
light green	257-767	300 (100)
red	257-760	300 (100)
dark gray	257-762	300 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	257-100	2000 (100)
blue	257-400	2000 (100)
orange	257-600	2000 (100)
light gray	257-300	2000 (100)
light green	257-700	2000 (100)
red	257-500	2000 (100)
dark gray	257-200	2000 (100)

Intermediate plate; Extends pin spacing; Width: 5.08 mm / 0.2 inch

Color	Item No.	PU (SPU)
gray	257-801	500 (100)

Intermediate plate; Extends pin spacing; Width: 7.62 mm / 0.3 inch

Color	Item No.	PU (SPU)
gray	257-811	400 (100)

Intermediate plate; Extends pin spacing; Width: 10.16 mm / 0.4 inch

Color	Item No.	PU (SPU)
gray	257-821	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

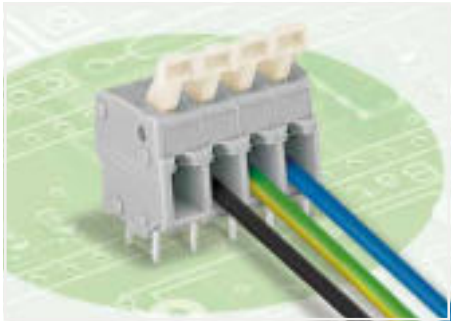
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors
- Versions for Ex e II and Ex i

PCB terminal block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Color: gray

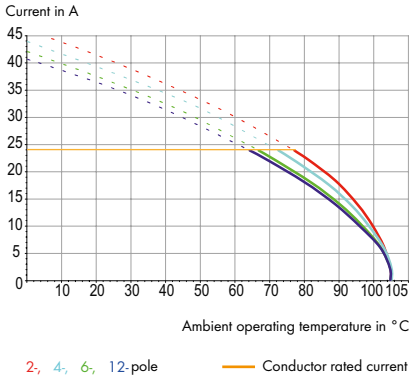
1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

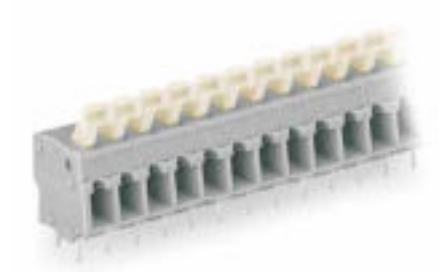
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

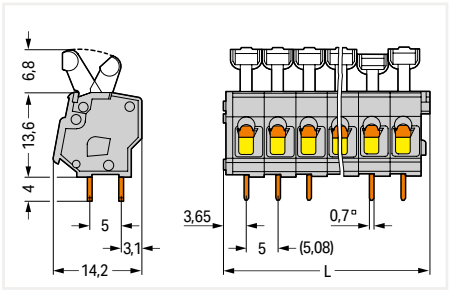
PCB terminal block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

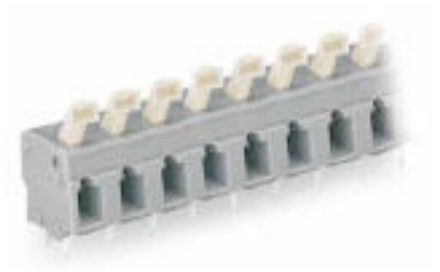


Pole No.	Item No.	PU (SPU)
2	257-402	400 (100)
3	257-403	280 (70)
4	257-404	220 (55)
5	257-405	180 (45)
6	257-406	140 (35)
7	257-407	120 (30)
8	257-408	100 (25)
9	257-409	100 (25)
10	257-410	80 (20)
12	257-412	80 (20)

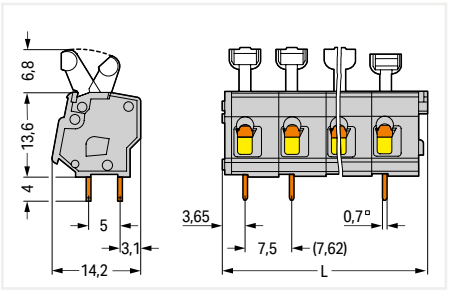


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



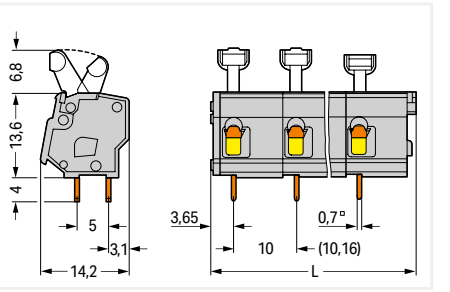
Pole No.	Item No.	PU (SPU)
2	257-502	280 (70)
3	257-503	200 (50)
4	257-504	140 (35)
5	257-505	120 (30)
6	257-506	100 (25)
7	257-507	80 (20)
8	257-508	80 (20)
9	257-509	60 (15)
10	257-510	60 (15)
12	257-512	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Pole No.	Item No.	PU (SPU)
2	257-602	200 (50)
3	257-603	140 (35)
4	257-604	100 (25)
5	257-605	80 (20)
6	257-606	80 (20)
7	257-607	60 (15)
8	257-608	60 (15)
9	257-609	40 (10)
10	257-610	40 (10)
12	257-612	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

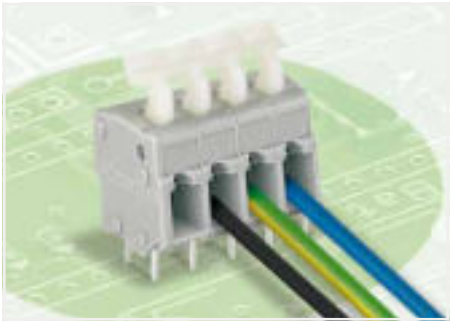
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

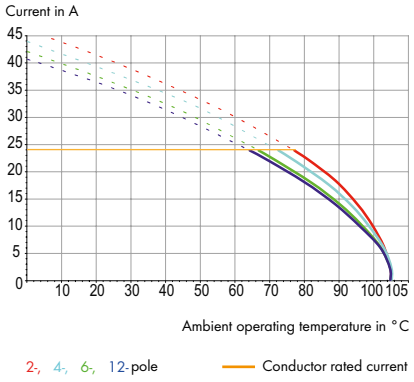
Stackable PCB terminal block ▸ 257 Series
CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm²

1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

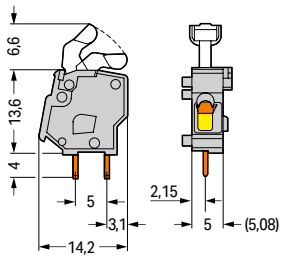
For approvals and corresponding ratings, visit www.wago.com

Stackable PCB terminal block ▸ 257 Series
CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

257-451

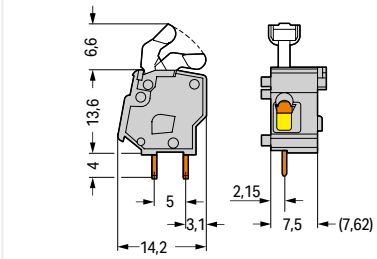
Color	Item No.	PU (SPU)
gray	257-451	500 (100)
blue	257-844	500 (100)
orange	257-846	500 (100)
light gray	257-843	500 (100)
light green	257-847	500 (100)
red	257-840	500 (100)
dark gray	257-842	500 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

257-551

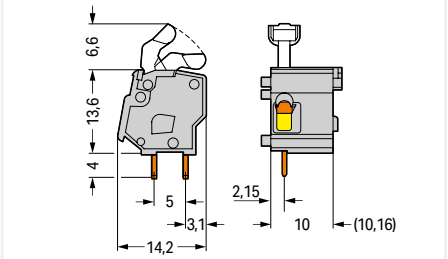
Color	Item No.	PU (SPU)
gray	257-551	400 (100)
blue	257-854	400 (100)
orange	257-856	400 (100)
light gray	257-853	400 (100)
light green	257-857	400 (100)
red	257-850	400 (100)
dark gray	257-852	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch

257-651

Color	Item No.	PU (SPU)
gray	257-651	300 (100)
blue	257-864	300 (100)
orange	257-866	300 (100)
light gray	257-863	300 (100)
light green	257-867	300 (100)
red	257-860	300 (100)
dark gray	257-862	300 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	257-100	2000 (100)
blue	257-400	2000 (100)
orange	257-600	2000 (100)
light gray	257-300	2000 (100)
light green	257-700	2000 (100)
red	257-500	2000 (100)
dark gray	257-200	2000 (100)

Intermediate plate; Extends pin spacing; Width: 5.08 mm / 0.2 inch

Color	Item No.	PU (SPU)
gray	257-801	500 (100)

Intermediate plate; Extends pin spacing; Width: 7.62 mm / 0.3 inch

Color	Item No.	PU (SPU)
gray	257-811	400 (100)

Intermediate plate; Extends pin spacing; Width: 10.16 mm / 0.4 inch

Color	Item No.	PU (SPU)
gray	257-821	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

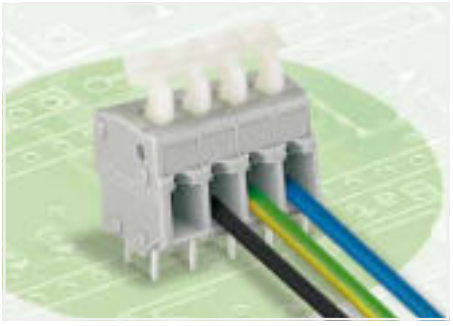
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors
- Versions for Ex e II and Ex i

PCB terminal block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Color: gray

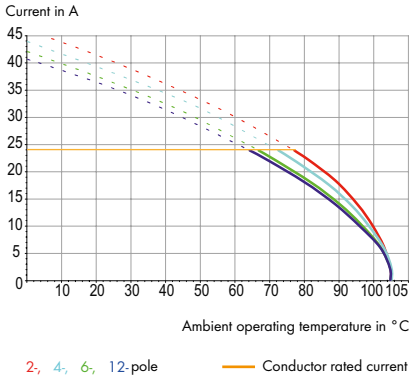
1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Tool	Page 870
Commoning strips	Page 262

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

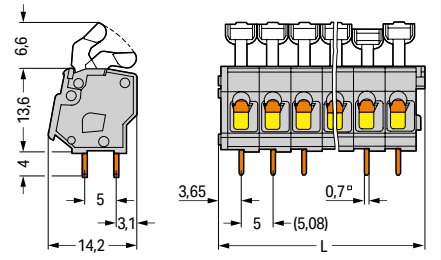
PCB terminal block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

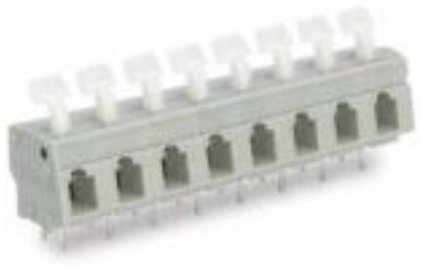
257-462

Pole No.	Item No.	PU (SPU)
2	257-452	400 (100)
3	257-453	280 (70)
4	257-454	220 (55)
5	257-455	180 (45)
6	257-456	140 (35)
7	257-457	120 (30)
8	257-458	100 (25)
9	257-459	100 (25)
10	257-460	80 (20)
12	257-462	80 (20)



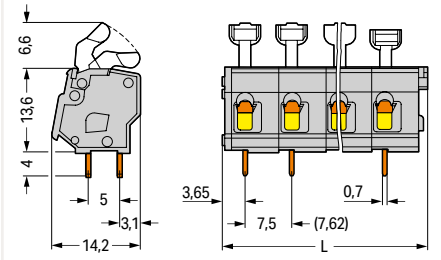
L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



257-558

Pole No.	Item No.	PU (SPU)
2	257-552	280 (70)
3	257-553	200 (50)
4	257-554	140 (35)
5	257-555	120 (30)
6	257-556	100 (25)
7	257-557	80 (20)
8	257-558	80 (20)
9	257-559	60 (15)
10	257-560	60 (15)
12	257-562	40 (10)

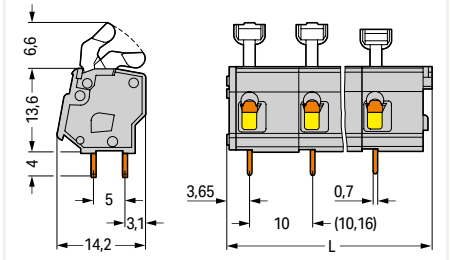


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch

257-656

Pole No.	Item No.	PU (SPU)
2	257-652	220 (55)
3	257-653	140 (35)
4	257-654	100 (25)
5	257-655	80 (20)
6	257-656	80 (20)
7	257-657	60 (15)
8	257-658	60 (15)
9	257-659	40 (10)
10	257-660	40 (10)
12	257-662	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

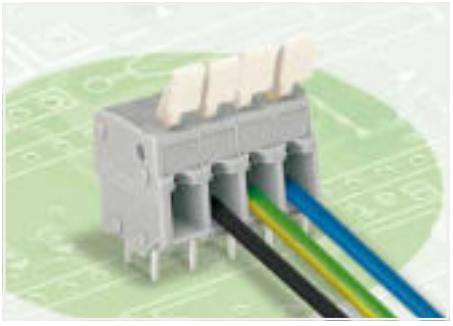
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Color: gray

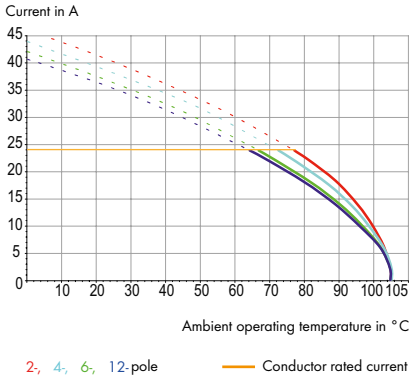
1



- PCB terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 258
Commoning strips	Page 262

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

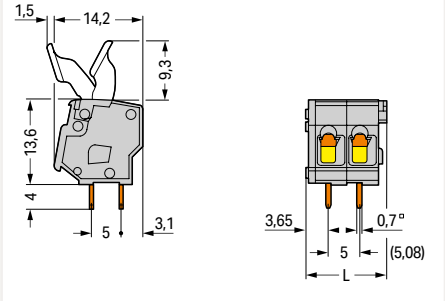
PCB terminal block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

257-402/333-000

Pole No.	Item No.	PU (SPU)
2	257-402/333-000	400 (100)
3	257-403/333-000	280 (70)
4	257-404/333-000	220 (55)
5	257-405/333-000	180 (45)
6	257-406/333-000	140 (35)
7	257-407/333-000	120 (30)
8	257-408/333-000	100 (25)
9	257-409/333-000	100 (25)
10	257-410/333-000	80 (20)
12	257-412/333-000	80 (20)

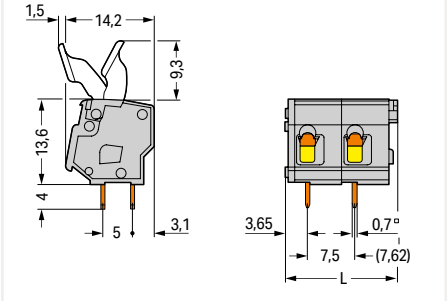


L = (pole no. x pin spacing) + 2.9 mm
For lengths greater than three poles, finger lever operation for center levers may not be possible due to finger size/spacing limitations.

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

257-502/333-000

Pole No.	Item No.	PU (SPU)
2	257-502/333-000	280 (70)
3	257-503/333-000	200 (50)
4	257-504/333-000	140 (35)
5	257-505/333-000	120 (30)
6	257-506/333-000	100 (25)
7	257-507/333-000	80 (20)
8	257-508/333-000	80 (20)
9	257-509/333-000	60 (15)
10	257-510/333-000	60 (15)
12	257-512/333-000	40 (10)

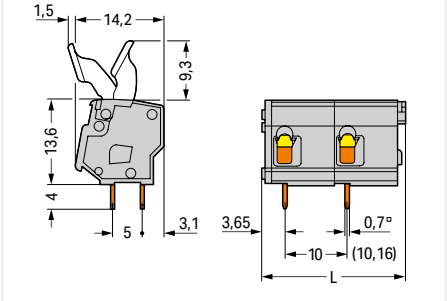


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch

257-602/333-000

Pole No.	Item No.	PU (SPU)
2	257-602/333-000	220 (55)
3	257-603/333-000	140 (35)
4	257-604/333-000	100 (25)
5	257-605/333-000	80 (20)
6	257-606/333-000	80 (20)
7	257-607/333-000	60 (15)
8	257-608/333-000	60 (15)
9	257-609/333-000	40 (10)
10	257-610/333-000	40 (10)
12	257-612/333-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

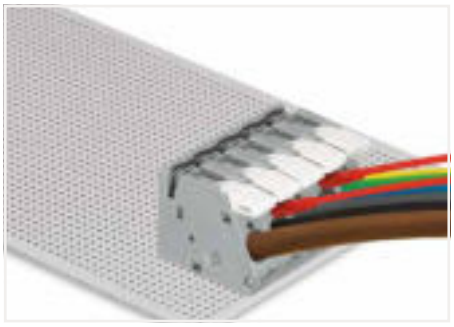
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color PCB connector strips
- Direct marking

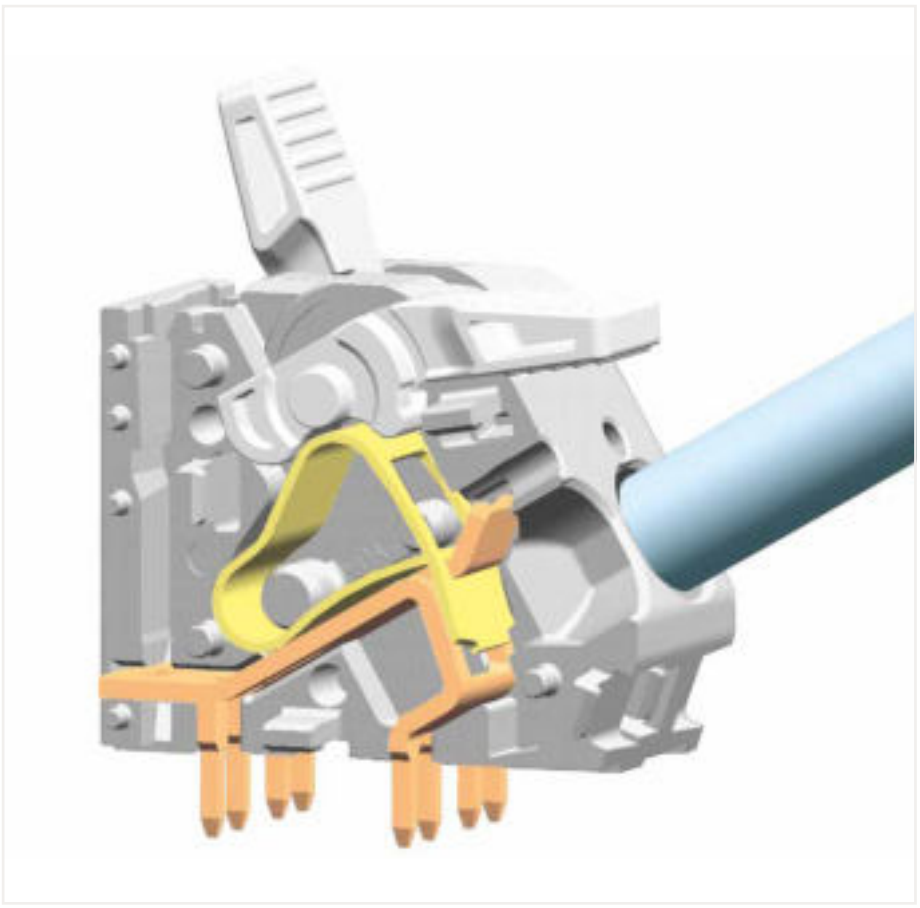
2706 and 2716 Series
Description and Installation

To open the clamping unit, pull the operating lever all the way back – 2706 and 2716 Series.

Inserting/removing a conductor – 2706 and 2716 Series.

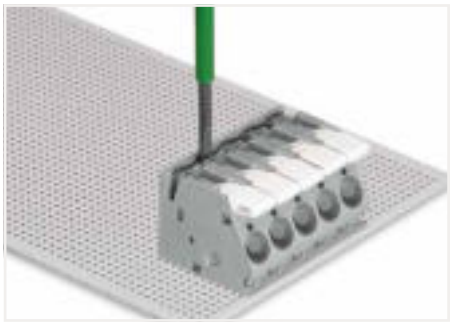


Testing with test plug – 2706 and 2716 Series.



2706 and 2716 Series

Insert the comb-style jumper bar.



Push jumper bar down firmly using a screwdriver until it hits the backstop – 2706 and 2716 Series.

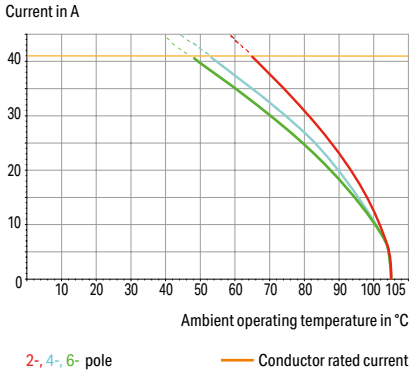
To remove the comb-style jumper bar, lift it up using a screwdriver – 2706 and 2716 Series.

PCB terminal block ▸ 2706 Series
CAGE CLAMP® ▸ Actuation type: Lever ▸ 6 mm² ▸ Color: gray

1

- High-current PCB terminal strips with lever-actuated CAGE CLAMP® connection
- Tool-free termination – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Two solder pins per contact point for high mechanical stability
- 600 V UL for 12.5 mm pin spacing

Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	**7.5 mm / 0.295 inch**			**10 mm / 0.394 inch**			**12.5 mm / 0.492 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	800 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A	41 A	41 A	41 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	600 V	300 V	600 V	-
Rated current	30 A	30 A	30 A	30 A	30 A	5 A	30 A	30 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor connection direction to PCB	30 °
Solid conductor	0.5 … 6 mm² / 20 … 10 AWG
Fine-stranded conductor	0.5 … 6 mm² / 20 … 10 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter with tolerance	1.8 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879
Test and measurement Page 886
See technical section for further information
For approvals and corresponding ratings, visit www.wago.com

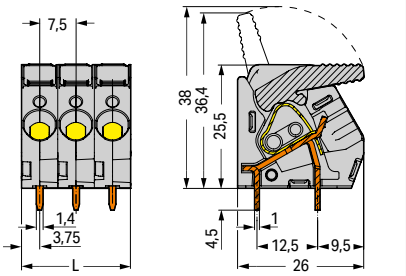
PCB terminal block ▸ 2706 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ 6 mm² ▸ Color: gray

Pin spacing: 7.5 mm / 0.295 inch

2706-104

Pole No.	Item No.	PU
2	2706-102	85
3	2706-103	55
4	2706-104	40
5	2706-105	30
6	2706-106	25
7	2706-107	20
8	2706-108	20
9	2706-109	15
10	2706-110	15
11	2706-111	15
12	2706-112	10

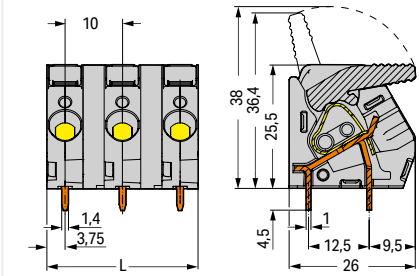


L = pole no. x pin spacing

Pin spacing: 10 mm / 0.394 inch

2706-204

Pole No.	Item No.	PU
2	2706-202	70
3	2706-203	45
4	2706-204	30
5	2706-205	25
6	2706-206	20
7	2706-207	15
8	2706-208	15
9	2706-209	10
10	2706-210	10
11	2706-211	10
12	2706-212	10

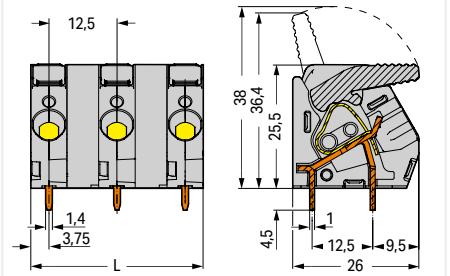


L = (pole no. x pin spacing) – 2.5 mm

Pin spacing: 12.5 mm / 0.492 inch

2706-304

Pole No.	Item No.	PU
2	2706-302	65
3	2706-303	40
4	2706-304	25
5	2706-305	20
6	2706-306	15
7	2706-307	15
8	2706-308	10
9	2706-309	10
10	2706-310	10
11	2706-311	5
12	2706-312	5



L = (pole no. x pin spacing) – 5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

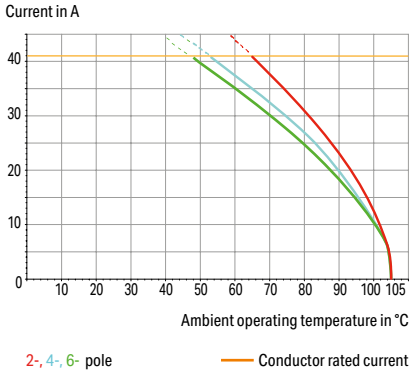
PCB terminal block ▸ 2706 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Number of jumper slots: 1 ▸ 6 mm² ▸ Color: gray

1

- High-current PCB terminal strips with lever-actuated CAGE CLAMP® connection
- Tool-free termination – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Two solder pins per contact point for high mechanical stability
- Versions with optional commoning for distributing potentials

Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data						
Pin spacing	**7.5 mm / 0.295 inch**			**10 mm / 0.394 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	800 V	1000 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	300 V	600 V
Rated current	30 A	30 A	30 A	30 A	30 A	5 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor connection direction to PCB	30 °
Solid conductor	0.5 … 6 mm² / 20 … 10 AWG
Fine-stranded conductor	0.5 … 6 mm² / 20 … 10 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter with tolerance	1.8 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Jumper	Page 259
Test and measurement	Page 886
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

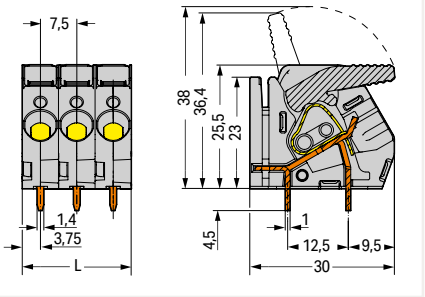
PCB terminal block ▸ 2706 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Number of jumper slots: 1 ▸ 6 mm² ▸ Color: gray

Pin spacing: 7.5 mm / 0.295 inch

2706-154

Pole No.	Item No.	PU
2	2706-152	85
3	2706-153	55
4	2706-154	40
5	2706-155	30
6	2706-156	25
7	2706-157	20
8	2706-158	20
9	2706-159	15
10	2706-160	15
11	2706-161	15
12	2706-162	10

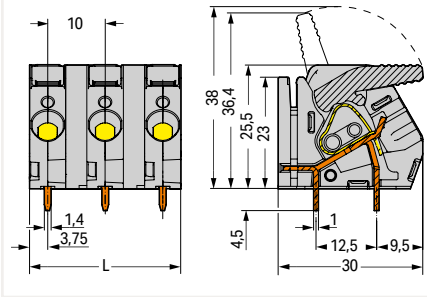


L = pole no. x pin spacing

Pin spacing: 10 mm / 0.394 inch

2706-254

Pole No.	Item No.	PU
2	2706-252	70
3	2706-253	45
4	2706-254	30
5	2706-255	25
6	2706-256	20
7	2706-257	15
8	2706-258	15
9	2706-259	10
10	2706-260	10
11	2706-261	10
12	2706-262	10



L = (pole no. x pin spacing) – 2.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

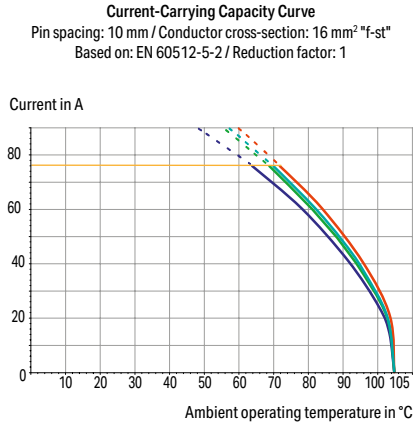
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 2716 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Color: gray

1

- High-current PCB terminal strips with lever-actuated CAGE CLAMP® connection
- Tool-free termination – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Four solder pins per contact point provide high mechanical stability
- 600 V UL for 15 mm pin spacing
- Pin and dimensions compatible to high-current, screw-type terminal blocks



Electrical Data						
Pin spacing	**10 mm / 0.394 inch**			**15 mm / 0.591 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	800 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	600 V	600 V	-
Rated current	55 A	55 A	10 A	65 A	65 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Conductor connection direction to PCB	30 °
Solid conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor; with insulated ferrule	1.5 … 10 mm²
Fine-stranded conductor; with uninsulated ferrule	1.5 … 10 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4.5 mm
Solder pin dimensions	0.95 x 1.2 mm
Drilled hole diameter with tolerance	1.6 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

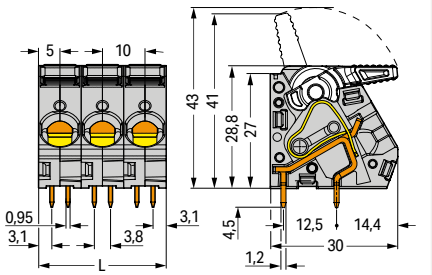
Ferrule Page 879
Test and measurement Page 886
See technical section for further information
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 2716 Series
CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Color: gray

Pin spacing: 10 mm / 0.394 inch

2716-104

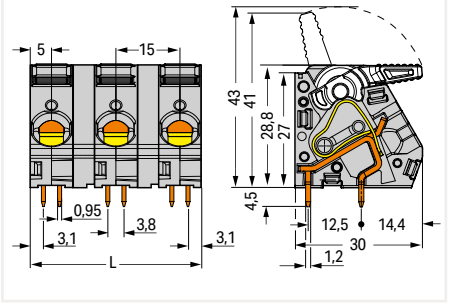
Pole No.	Item No.	PU
2	2716-102	65
3	2716-103	40
4	2716-104	30
5	2716-105	25
6	2716-106	20
7	2716-107	15
8	2716-108	15



L = pole no. x pin spacing

Pin spacing: 15 mm / 0.591 inch

Pole No.	Item No.	PU
2	2716-202	50
3	2716-203	30
4	2716-204	20
5	2716-205	15
6	2716-206	15
7	2716-207	10
8	2716-208	10



L = (pole no. x pin spacing) – 5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

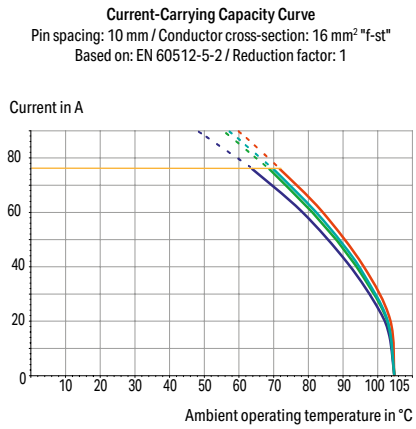
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 2716 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Number of jumper slots: 1 ▸ 16 mm² ▸ Color: gray

1

- High-current PCB terminal strips with lever-actuated CAGE CLAMP® connection
- Tool-free termination – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Four solder pins per contact point provide high mechanical stability
- 600 V UL for 15 mm pin spacing
- Versions with optional commoning for distributing potentials



Electrical Data						
Pin spacing	**10 mm / 0.394 inch**			**15 mm / 0.591 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	800 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	600 V	600 V	-
Rated current	55 A	55 A	10 A	65 A	65 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Conductor connection direction to PCB	30 °
Solid conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor; with insulated ferrule	1.5 … 10 mm²
Fine-stranded conductor; with uninsulated ferrule	1.5 … 10 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4.5 mm
Solder pin dimensions	0.95 x 1.2 mm
Drilled hole diameter with tolerance	1.6 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Jumper	Page 259
Test and measurement	Page 886
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

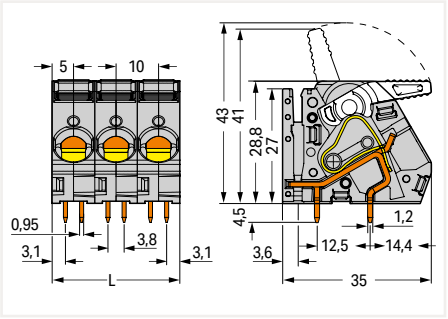
PCB terminal block ▸ 2716 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Number of jumper slots: 1 ▸ 16 mm² ▸ Color: gray

Pin spacing: 10 mm / 0.394 inch

2716-154

Pole No.	Item No.	PU
2	2716-152	52
3	2716-153	32
4	2716-154	24
5	2716-155	20
6	2716-156	16
7	2716-157	12
8	2716-158	12

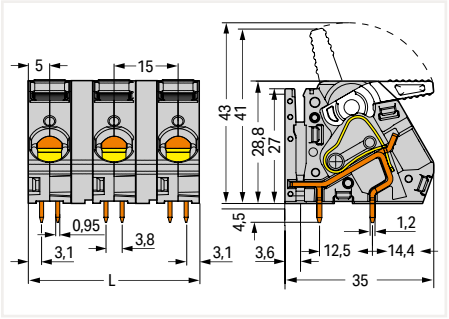


L = pole no. x pin spacing

Pin spacing: 15 mm / 0.591 inch

2716-254

Pole No.	Item No.	PU
2	2716-252	40
3	2716-253	24
4	2716-254	16
5	2716-255	12
6	2716-256	12
7	2716-257	8
8	2716-258	8



L = (pole no. x pin spacing) – 5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

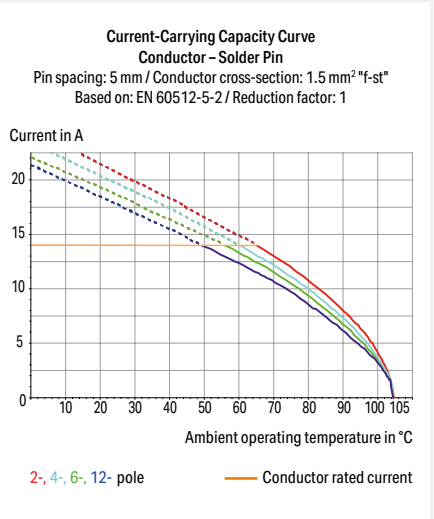
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

2-conductor PCB terminal block ▸ 816 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1

- Two-conductor terminal strips with screwdriver actuation and Push-in CAGE CLAMP® connection
- Double entries for supply and power distribution
- Simple, reliable connection via clamping units featuring individual operating slots
- Simple, push-in termination of solid and ferruled conductors



Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.2 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.2 … 1.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.5 mm
Solder pin dimensions	0.8 x 0.5 mm
Drilled hole diameter with tolerance	1.1 (+0.1) mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

2-conductor PCB terminal block ▸ 816 Series

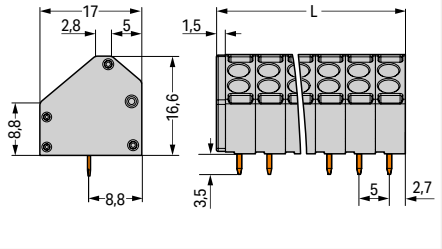
Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

816-105

Open the clamping unit via screwdriver (3.5 mm blade) to insert/remove fine-stranded conductors.

Push in solid and ferruled, fine-stranded conductors until fully inserted.

Pole No.	Item No.	PU (SPU)
2	816-102	322 (161)
3	816-103	224 (112)
4	816-104	168 (84)
5	816-105	140 (70)
6	816-106	112 (56)
7	816-107	98 (49)
8	816-108	84 (42)
9	816-109	70 (35)
10	816-110	70 (35)
11	816-111	56 (28)
12	816-112	56 (28)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

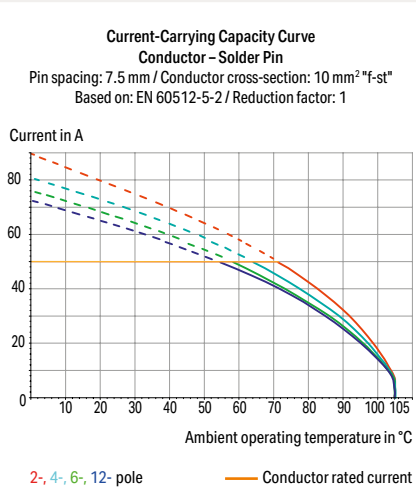
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

2-conductor PCB terminal block ▸ 746 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Pin spacing: 7.5 mm / 0.295 inch ▸ Color: gray

1

- Two-conductor terminal strips with screwdriver actuation and Push-in CAGE CLAMP® connection
- Double entries for supply and power distribution
- Simple, reliable connection via clamping units featuring individual operating slots
- 600 V UL per UL 1059
- Simple, push-in termination of solid and ferruled conductors
- Marker slot for miniature WSB and WMB markers



Electrical Data			
Pin spacing	7.5 mm / 0.295 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	50 A	50 A	50 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	50 A	50 A	-
Approbations per	CSA		
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	44 A	44 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin length	4.4 mm
Solder pin dimensions	1.6 x 1.2 mm
Drilled hole diameter with tolerance	2.2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

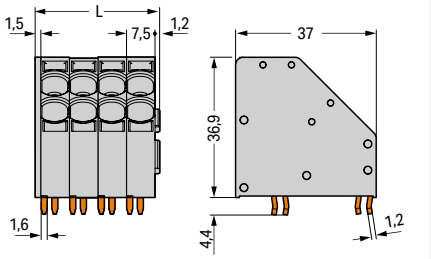
Ferrule	Page 879
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

2-conductor PCB terminal block ▸ 746 Series

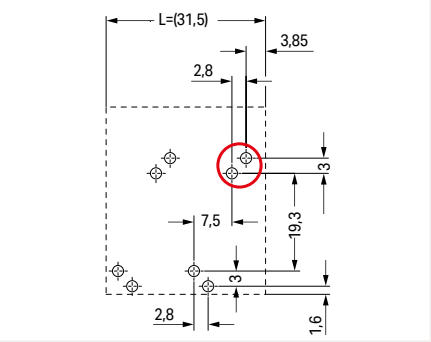
Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Pin spacing: 7.5 mm / 0.295 inch ▸ Color: gray

746-2305

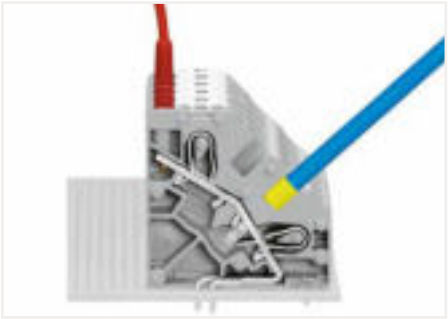
Pole No.	Item No.	PU
2	746-2302	60
3	746-2303	40
4	746-2304	32
5	746-2305	24
6	746-2306	20
7	746-2307	16
8	746-2308	16
9	746-2309	12
10	746-2310	12
12	746-2312	8



L = (pole no. x pin spacing) + 2.7 mm



First solder pins, right rear (red circle)



Inserting solid and ferruled conductors by simply pushing them into unit.

Testing with 2 mm Ø test plug.

Inserting fine-stranded conductors via screwdriver (5.5 mm blade).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

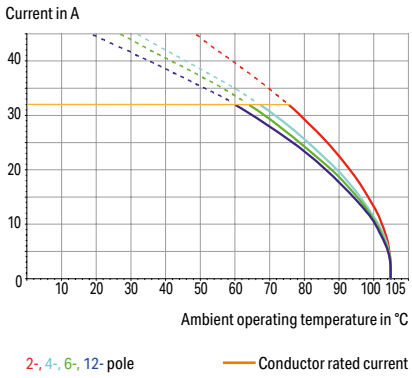
PCB terminal block ▸ 2624 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Modular terminal block ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1

- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 4 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	400 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	41 A	41 A	41 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	26 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	26 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879
Tool Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

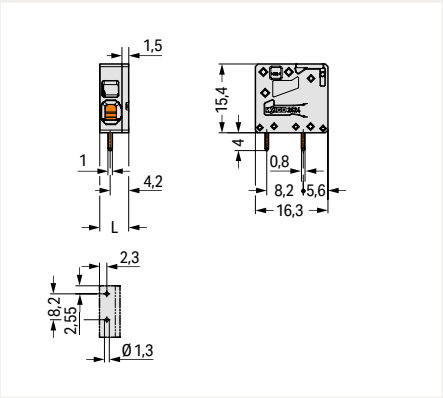
PCB terminal block ▸ 2624 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Modular terminal block ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

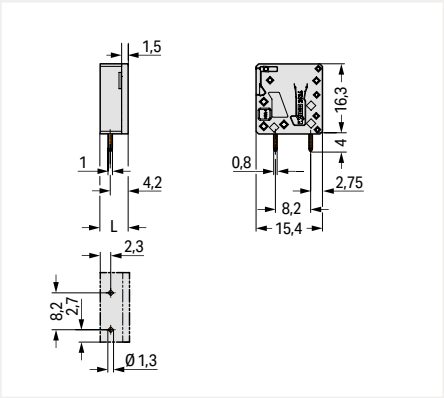
Conductor connection direction to PCB: 0 °	Conductor connection direction to PCB: 90 °
2624-1101	2624-3101

Color	Item No.	PU
gray	2624-1101	300

Color	Item No.	PU
gray	2624-3101	300



L = 6.5 mm



L = 6.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

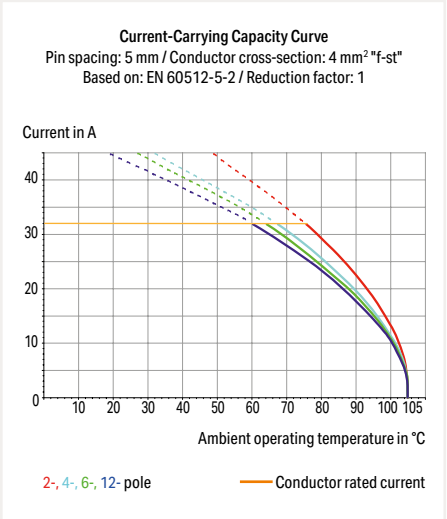
- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2624 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

1

- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data									
Pin spacing	**5 mm / 0.197 inch**			**7.5 mm / 0.295 inch**			**11.5 mm / 0.453 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	400 V	630 V	630 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A	41 A	41 A	41 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	600 V	600 V	-
Rated current	26 A	-	10 A	26 A	26 A	10 A	26 A	26 A	-
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	600 V	600 V	-
Rated current	26 A	-	5 A	26 A	-	5 A	26 A	26 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

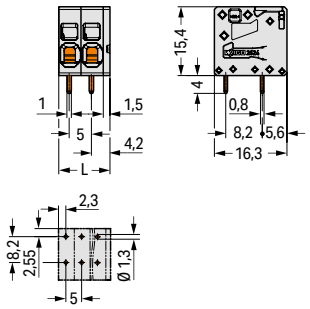
PCB terminal block ▸ 2624 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 5 mm / 0.197 inch

2624-1103

Pole No.	Item No.	PU
2	2624-1102	200
3	2624-1103	150
4	2624-1104	100
5	2624-1105	100
6	2624-1106	80
7	2624-1107	50
8	2624-1108	50
9	2624-1109	50
10	2624-1110	40
11	2624-1111	35
12	2624-1112	35

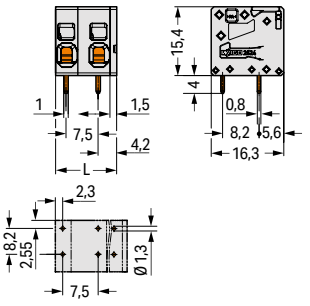


L = (pole no. – 1) x pin spacing + 6.5 mm

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 7.5 mm / 0.295 inch

2624-1303

Pole No.	Item No.	PU
2	2624-1302	200
3	2624-1303	120
4	2624-1304	80
5	2624-1305	70
6	2624-1306	50
7	2624-1307	50
8	2624-1308	40
9	2624-1309	35
10	2624-1310	35
11	2624-1311	25
12	2624-1312	25

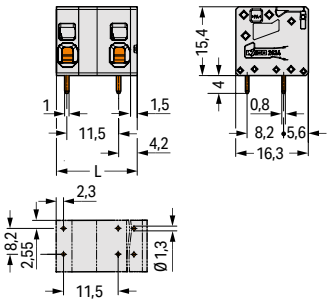


L = (pole no. – 1) x pin spacing + 6.5 mm

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 11.5 mm / 0.453 inch

2624-1503

Pole No.	Item No.	PU
2	2624-1502	100
3	2624-1503	80
4	2624-1504	50
5	2624-1505	40
6	2624-1506	40
7	2624-1507	30
8	2624-1508	25
9	2624-1509	25
10	2624-1510	20
11	2624-1511	20
12	2624-1512	20



L = (pole no. – 1) x pin spacing + 6.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2624 Series

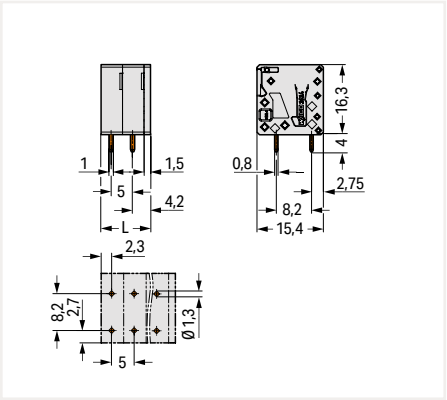
Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

1

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 5 mm / 0.197 inch

2624-3103

Pole No.	Item No.	PU
2	2624-3102	200
3	2624-3103	150
4	2624-3104	100
5	2624-3105	100
6	2624-3106	80
7	2624-3107	50
8	2624-3108	50
9	2624-3109	50
10	2624-3110	40
11	2624-3111	35
12	2624-3112	35

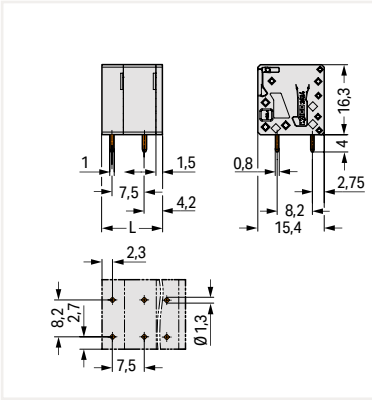


L = (pole no. – 1) x pin spacing + 6.5 mm

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 7.5 mm / 0.295 inch

2624-3303

Pole No.	Item No.	PU
2	2624-3302	200
3	2624-3303	120
4	2624-3304	80
5	2624-3305	70
6	2624-3306	50
7	2624-3307	50
8	2624-3308	40
9	2624-3309	35
10	2624-3310	35
11	2624-3311	25
12	2624-3312	25

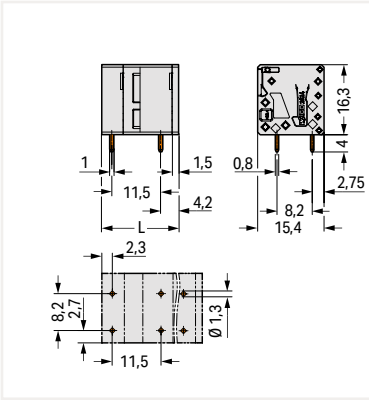


L = (pole no. – 1) x pin spacing + 6.5 mm

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 11.5 mm / 0.453 inch

2624-3503

Pole No.	Item No.	PU
2	2624-3502	100
3	2624-3503	80
4	2624-3504	50
5	2624-3505	40
6	2624-3506	40
7	2624-3507	30
8	2624-3508	25
9	2624-3509	25
10	2624-3510	20
11	2624-3511	20
12	2624-3512	20



L = (pole no. – 1) x pin spacing + 6.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

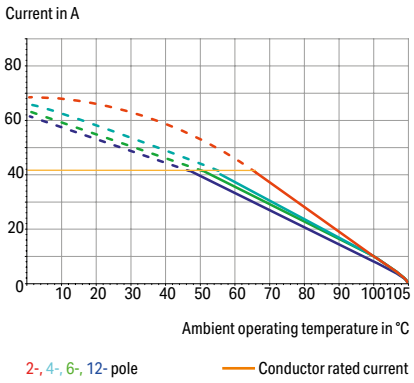
PCB terminal block ▸ 2626 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Modular terminal block ▸ Pin spacing: 7.5 mm / 0.295 inch ▸ Color: gray

1

- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	7.5 mm / 0.295 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	-	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	48 A	48 A	48 A
Approbations per		UL 1059	
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	38 A	38 A	-
Approbations per		CSA	
Use group	B	C	D
Rated voltage	600 V	1000 V	-
Rated current	38 A	38 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Solid conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 6 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1.5 x 1 mm
Drilled hole diameter with tolerance	2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

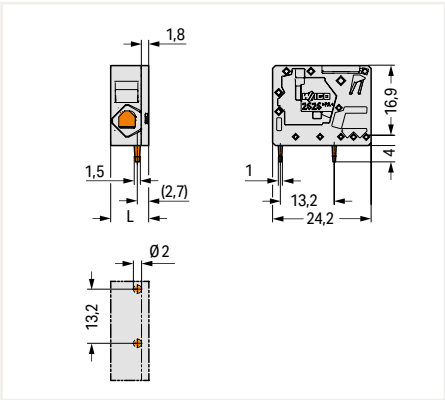
PCB terminal block ▸ 2626 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Modular terminal block ▸ Pin spacing: 7.5 mm / 0.295 inch ▸ Color: gray

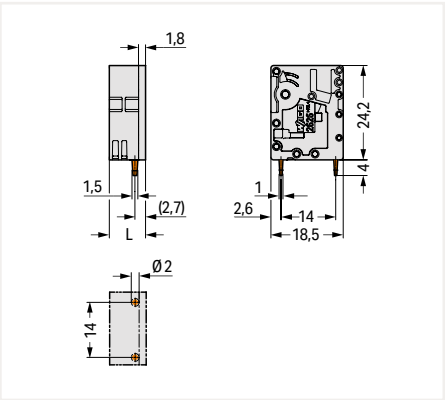
Conductor connection direction to PCB: 0 °	Conductor connection direction to PCB: 90 °
2626-1101	2626-3101

Color	Item No.	PU
gray	2626-1101	200

Color	Item No.	PU
gray	2626-3101	200



L = 9.3 mm



L = 9.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

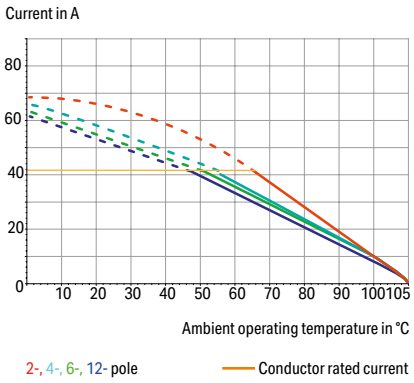
PCB terminal block ▸ 2626 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Terminal strip ▸ Color: gray

1

- PCB terminal strips with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data						
Pin spacing	**7.5 mm / 0.295 inch**			**12.5 mm / 0.492 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	800 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Rated current	48 A	48 A	48 A	48 A	48 A	48 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	600 V	600 V	-	600 V	600 V	-
Rated current	38 A	38 A	-	38 A	38 A	-
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	600 V	600 V	-	600 V	600 V	-
Rated current	38 A	38 A	-	38 A	38 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Solid conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 6 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	1.5 x 1 mm
Drilled hole diameter with tolerance	2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879
Tool Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

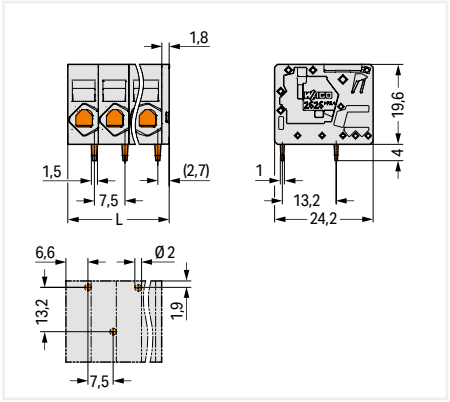
PCB terminal block ▸ 2626 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 7.5 mm / 0.295 inch

2626-1103/020-000

Pole No.	Item No.	PU
2	2626-1102/020-000	140
3	2626-1103/020-000	90
4	2626-1104/020-000	70
5	2626-1105/020-000	60
6	2626-1106/020-000	50
7	2626-1107/020-000	40
8	2626-1108/020-000	40
9	2626-1109/020-000	35
10	2626-1110/020-000	30
11	2626-1111/020-000	25
12	2626-1112/020-000	25

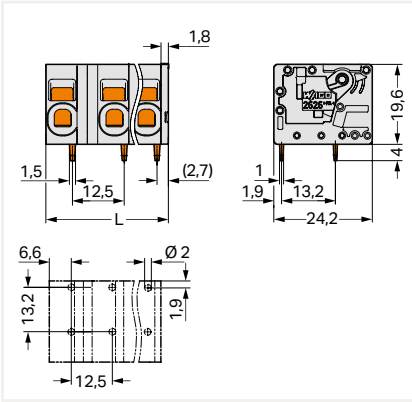


L = (pole no. – 1) x pin spacing + 9.3 mm

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 12.5 mm / 0.492 inch

2626-1353

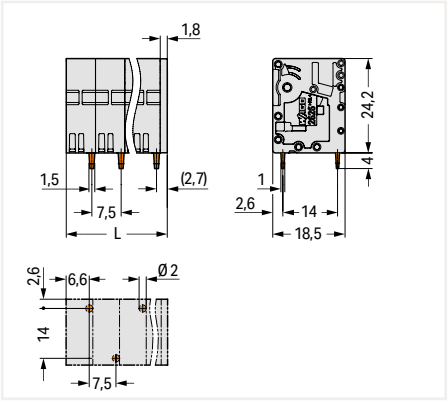
Pole No.	Item No.	PU
2	2626-1352	100
3	2626-1353	50
4	2626-1354	50
5	2626-1355	48
6	2626-1356	34
7	2626-1357	28
8	2626-1358	26
9	2626-1359	22
10	2626-1360	22
11	2626-1361	20
12	2626-1362	12



L = (pole no. – 1) x pin spacing + 9.3 mm

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 7.5 mm / 0.295 inch

Pole No.	Item No.	PU
2	2626-3102/020-000	140
3	2626-3103/020-000	90
4	2626-3104/020-000	70
5	2626-3105/020-000	60
6	2626-3106/020-000	50
7	2626-3107/020-000	40
8	2626-3108/020-000	40
9	2626-3109/020-000	35
10	2626-3110/020-000	30
11	2626-3111/020-000	25
12	2626-3112/020-000	25



L = (pole no. – 1) x pin spacing + 9.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2626 Series

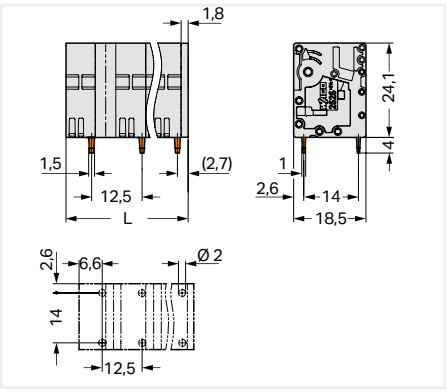
Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 12.5 mm / 0.492 inch

1

2626-3353

Pole No.	Item No.	PU
2	2626-3352	100
3	2626-3353	60
4	2626-3354	50
5	2626-3355	45
6	2626-3356	40
7	2626-3357	40
8	2626-3358	32
9	2626-3359	28
10	2626-3360	28
11	2626-3361	24
12	2626-3362	12



L = (pole no. – 1) x pin spacing + 9.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

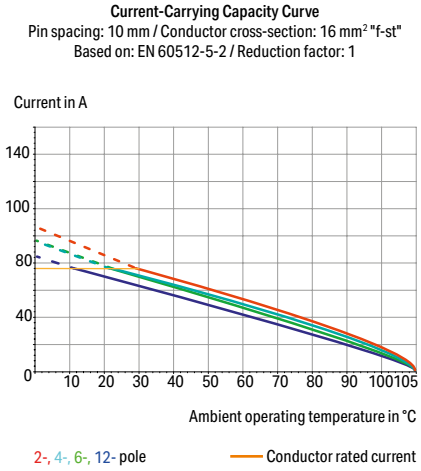
- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2636 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Modular terminal block ▸ Pin spacing: 10 mm / 0.394 inch ▸ Color: gray

1

- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data						
Conductor connection direction to PCB	0 °			90 °		
Pin spacing	10 mm / 0.394 inch			10 mm / 0.394 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	600 V	600 V	-	600 V	600 V	-
Rated current	-	-	-	-	-	-
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	600 V	1000 V	-	600 V	1000 V	0 V
Rated current	66 A	66 A	-	66 A	66 A	0 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor; with insulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with uninsulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with twin ferrule	0.75 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

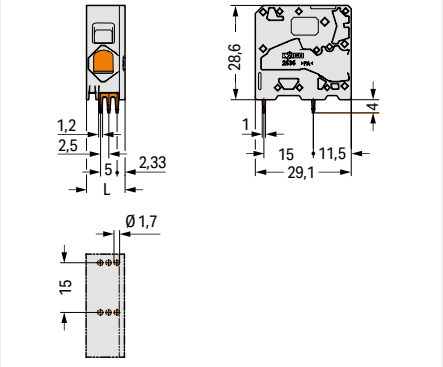
PCB terminal block ▸ 2636 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Modular terminal block ▸ Pin spacing: 10 mm / 0.394 inch ▸ Color: gray

Conductor connection direction to PCB: 0 °

2636-1101

Color	Item No.	PU
gray	2636-1101	100

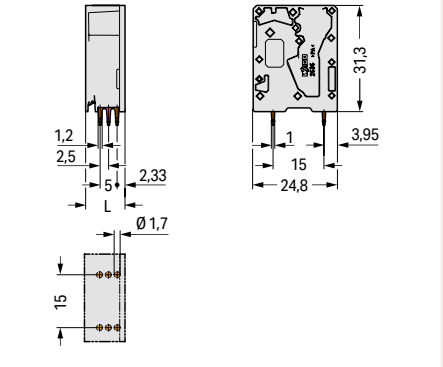


L = 11.6 mm

Conductor connection direction to PCB: 90 °

2636-3101

Color	Item No.	PU
gray	2636-3101	100



L = 11.6 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

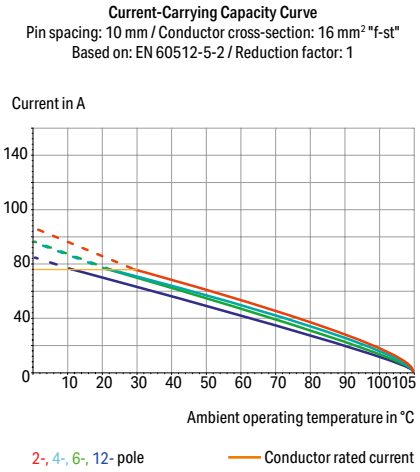
- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2636 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

1

- PCB terminal strips with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data						
Pin spacing	**10 mm / 0.394 inch**			**15 mm / 0.591 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	600 V	600 V	-	300 V	300 V	600 V
Rated current	66 A	66 A	-	85 A	85 A	5 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	600 V	600 V	-	300 V	300 V	600 V
Rated current	66 A	66 A	-	66 A	66 A	66 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor; with insulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with uninsulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with twin ferrule	0.75 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879
Tool Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

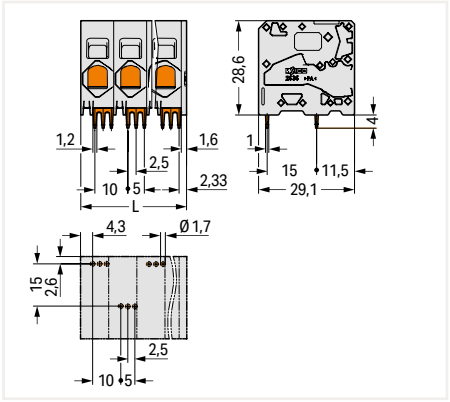
PCB terminal block ▸ 2636 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 10 mm / 0.394 inch

2636-1103/020-000

Pole No.	Item No.	PU
2	2636-1102/020-000	50
3	2636-1103/020-000	50
4	2636-1104/020-000	25
5	2636-1105/020-000	25
6	2636-1106/020-000	25
7	2636-1107/020-000	20
8	2636-1108/020-000	20
9	2636-1109/020-000	20
10	2636-1110/020-000	15
11	2636-1111/020-000	15
12	2636-1112/020-000	15

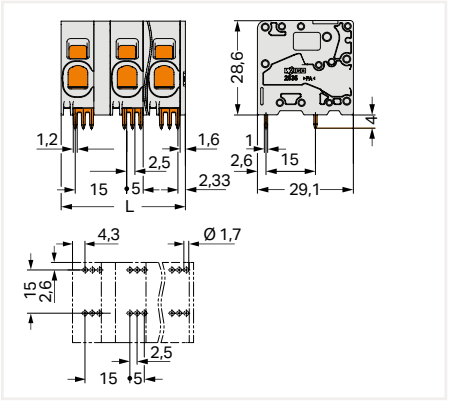


L = (pole no. – 1) x pin spacing + 11.6 mm

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 15 mm / 0.591 inch

2636-1353

Pole No.	Item No.	PU
2	2636-1352	60
3	2636-1353	36
4	2636-1354	32
5	2636-1355	28
6	2636-1356	24
7	2636-1357	20
8	2636-1358	18

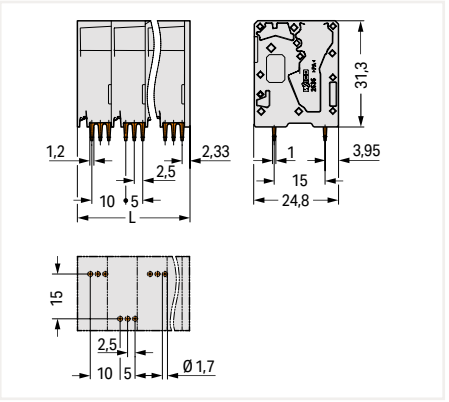


L = (pole no. – 1) x pin spacing + 11.6 mm

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 10 mm / 0.394 inch

2636-3103/020-000

Pole No.	Item No.	PU
2	2636-3102/020-000	50
3	2636-3103/020-000	50
4	2636-3104/020-000	25
5	2636-3105/020-000	25
7	2636-3107/020-000	20
8	2636-3108/020-000	20
9	2636-3109/020-000	20
10	2636-3110/020-000	15
11	2636-3111/020-000	15
12	2636-3112/020-000	15



L = (pole no. – 1) x pin spacing + 11.6 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2636 Series

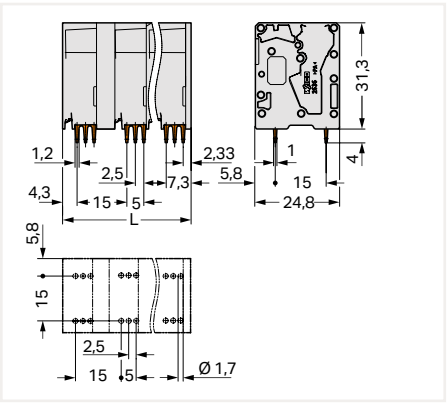
Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 15 mm / 0.591 inch

1

2636-3353

Pole No.	Item No.	PU
2	2636-3352	50
3	2636-3353	34
4	2636-3354	32
5	2636-3355	22
6	2636-3356	18
7	2636-3357	18
8	2636-3358	16



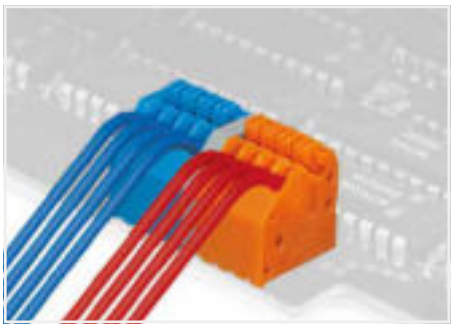
L = (pole no. – 1) x pin spacing + 11.6 mm

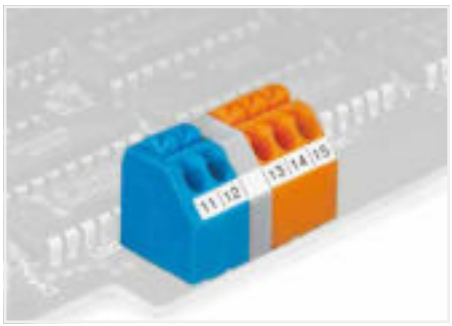
PU = Packaging Unit; SPU = Subpackaging Unit

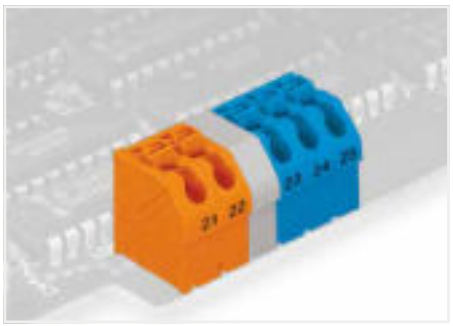
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

250 Series
Description and Installation



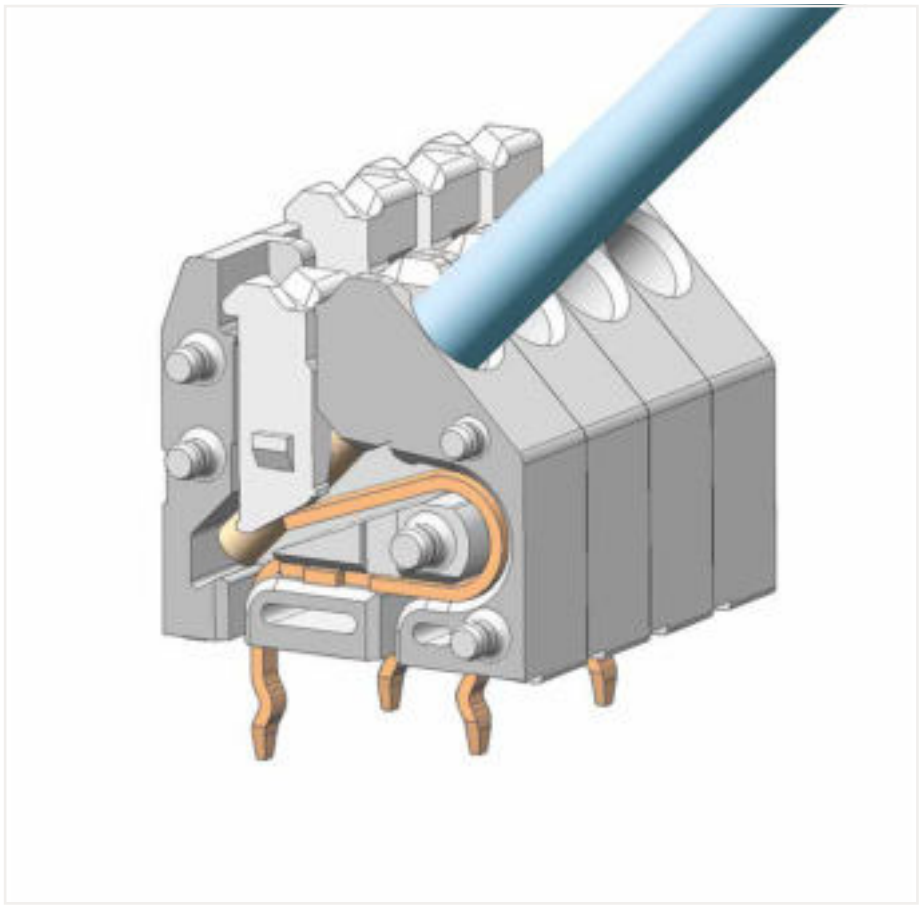




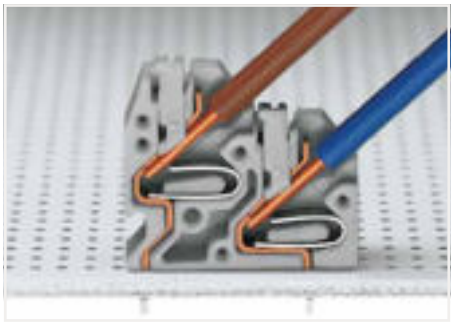
Labeling via self-adhesive strips or direct marking. Mixed-color terminal strips (with or without spacer) are available upon request.

Space-saving wiring, 250 Series – 5 mm pin spacing.

Inserting solid conductors via push-in termination.
Inserting fine-stranded conductors via push-buttons,
250 Series – 3.5 mm pin spacing.

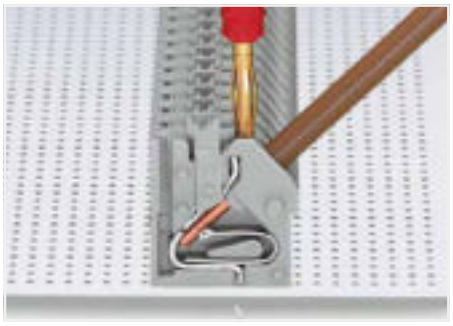


250 Series



Space-saving wiring – push-in termination of solid conductors.

Testing with 11 mm Ø test pin, on the conductor,
250 Series – 2.5 … 3.5 mm pin spacing.



Testing with 2 mm Ø test plug, touch contact,
250 Series – 5 mm pin spacing.

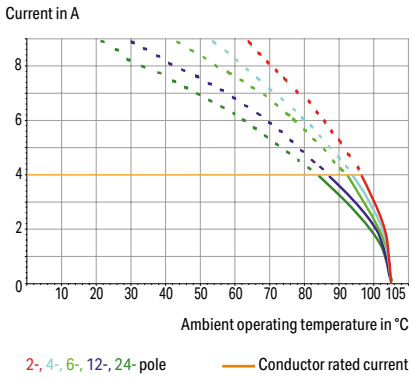
PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Pin spacing: 2.5 mm / 0.098 inch ▸ Color: gray

1

- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request

Current-Carrying Capacity Curve
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	2.5 mm / 0.098 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	100 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	4 A	4 A	4 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	2 A	-	2 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.14 … 0.5 mm² / 24 … 20 AWG
Fine-stranded conductor	0.2 … 0.5 mm² / 24 … 20 AWG
Conductor diameter	0.4 … 0.8 mm

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.75 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Marking	Page 864
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

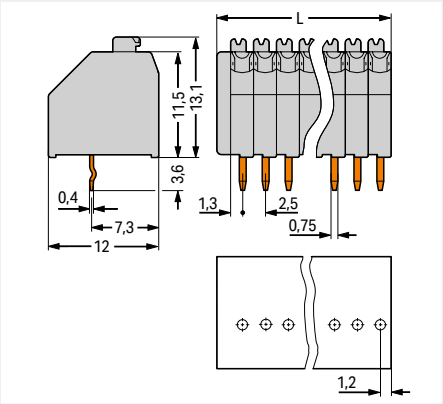
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Pin spacing: 2.5 mm / 0.098 inch ▸ Color: gray

250-312

Pole No.	Item No.	PU (SPU)
2	250-302	720 (180)
3	250-303	520 (130)
4	250-304	400 (100)
5	250-305	340 (85)
6	250-306	280 (70)
7	250-307	240 (60)
8	250-308	220 (55)
9	250-309	200 (50)
10	250-310	180 (45)
11	250-311	160 (40)
12	250-312	140 (35)
13	250-313	140 (35)
14	250-314	120 (30)
15	250-315	120 (30)
16	250-316	100 (25)
17	250-317	100 (25)
18	250-318	80 (20)
19	250-319	80 (20)
20	250-320	80 (20)
21	250-321	80 (20)
22	250-322	80 (20)
23	250-323	80 (20)
24	250-324	60 (15)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

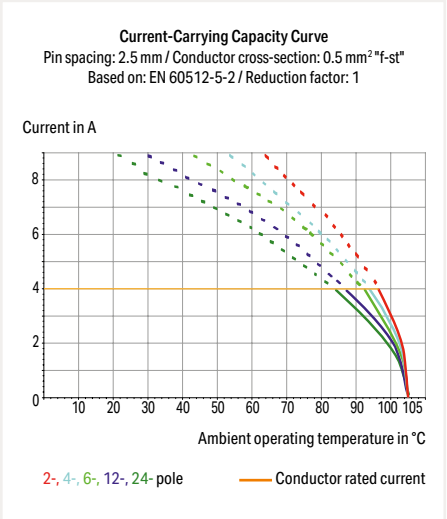
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Terminal strips with spacers
- Direct marking

PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (staggered) ▸ Color: gray

1

- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request



Electrical Data			
Pin spacing	2.54 mm / 0.1 inch;2.5 mm / 0.098 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	4 A	4 A	4 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.14 … 0.5 mm² / 24 … 20 AWG
Fine-stranded conductor	0.2 … 0.5 mm² / 24 … 20 AWG
Conductor diameter	0.4 … 0.8 mm

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.75 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Marking	Page 864
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

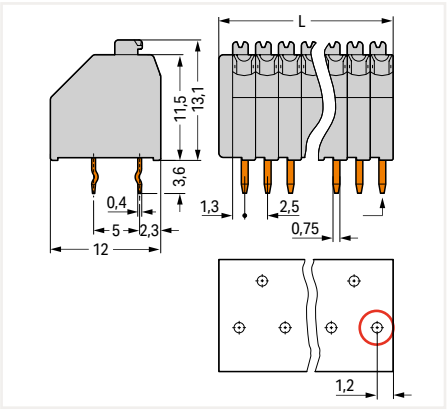
PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (staggered) ▸ Color: gray

Pin spacing: 2.5 mm / 0.098 inch

250-412

Pole No.	Item No.	PU (SPU)
2	250-402	720 (180)
3	250-403	520 (130)
4	250-404	400 (100)
5	250-405	340 (85)
6	250-406	280 (70)
7	250-407	240 (60)
8	250-408	220 (55)
9	250-409	200 (50)
10	250-410	180 (45)
11	250-411	160 (40)
12	250-412	140 (35)
13	250-413	140 (35)
14	250-414	120 (30)
15	250-415	120 (30)
16	250-416	100 (25)
17	250-417	100 (25)
18	250-418	80 (20)
19	250-419	80 (20)
20	250-420	80 (20)
21	250-421	80 (20)
22	250-422	80 (20)
23	250-423	60 (15)
24	250-424	60 (15)

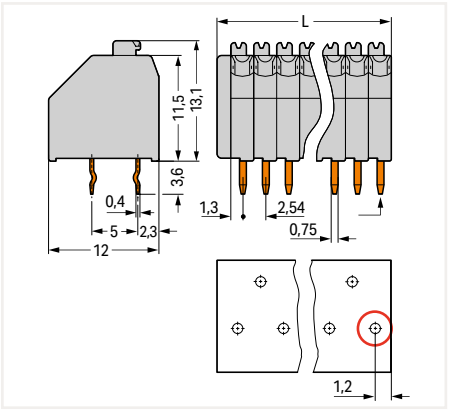


L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)

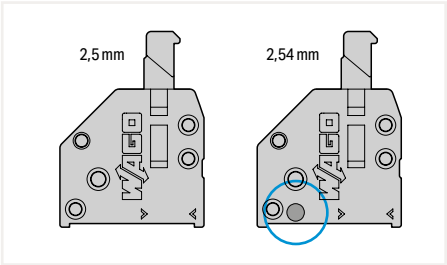
Pin spacing: 2.54 mm / 0.1 inch

250-1412

Pole No.	Item No.	PU (SPU)
2	250-1402	720 (180)
3	250-1403	520 (130)
4	250-1404	400 (100)
5	250-1405	340 (85)
6	250-1406	280 (70)
7	250-1407	240 (60)
8	250-1408	200 (50)
9	250-1409	180 (45)
10	250-1410	160 (40)
11	250-1411	160 (40)
12	250-1412	140 (35)
13	250-1413	120 (30)
14	250-1414	120 (30)
15	250-1415	120 (30)
16	250-1416	100 (25)
17	250-1417	100 (25)
18	250-1418	100 (25)
19	250-1419	80 (20)
20	250-1420	80 (20)
21	250-1421	80 (20)
22	250-1422	80 (20)
23	250-1423	80 (20)
24	250-1424	60 (15)



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)



A groove at the back of the terminal strip differentiates between the two pin spacings.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

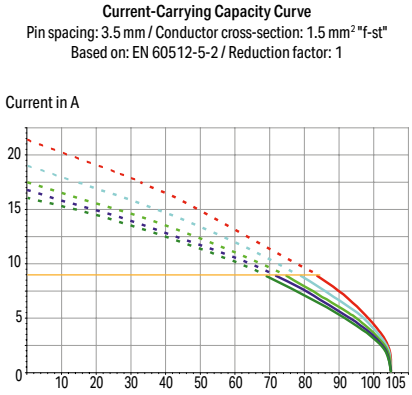
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Terminal strips with spacers
- Direct marking

PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

1

- Compact terminal strips with push-buttons
- Push-in terminations of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request



Electrical Data			
Pin spacing	3.5 mm / 0.138 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	8 A	8 A	8 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.75 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

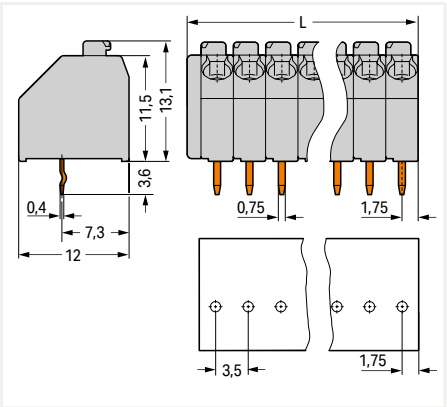
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

250-112

Pole No.	Item No.	PU (SPU)
2	250-102	560 (140)
3	250-103	400 (100)
4	250-104	300 (75)
5	250-105	240 (60)
6	250-106	200 (50)
7	250-107	180 (45)
8	250-108	160 (40)
9	250-109	140 (35)
10	250-110	120 (30)
11	250-111	120 (30)
12	250-112	100 (25)
13	250-113	100 (25)
14	250-114	80 (20)
15	250-115	80 (20)
16	250-116	80 (20)
17	250-117	60 (15)
18	250-118	60 (15)
19	250-119	60 (15)
20	250-120	60 (15)
21	250-121	60 (15)
22	250-122	60 (15)
23	250-123	40 (10)
24	250-124	40 (10)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

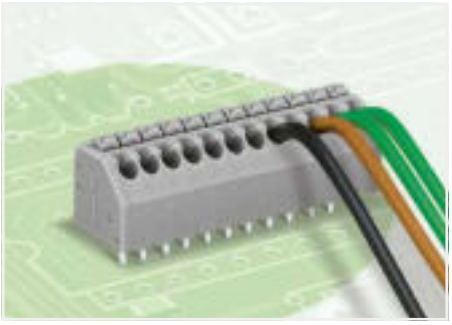
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Terminal strips with spacers
- Direct marking

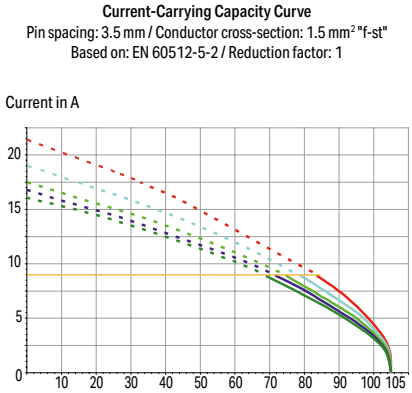
PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (staggered) ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

1



- Compact terminal strips with push-buttons
- Push-in terminations of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request



Electrical Data			
Pin spacing	3.5 mm / 0.138 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	8 A	8 A	8 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.75 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

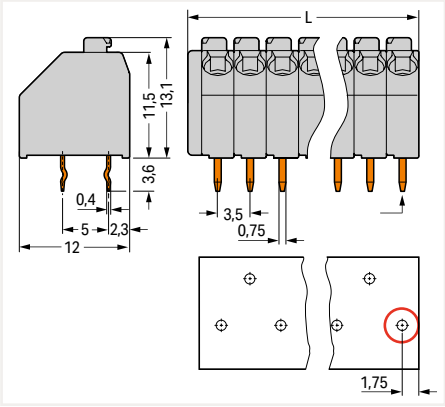
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (staggered) ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

250-212

Pole No.	Item No.	PU (SPU)
2	250-202	560 (140)
3	250-203	400 (100)
4	250-204	300 (75)
5	250-205	240 (60)
6	250-206	200 (50)
7	250-207	180 (45)
8	250-208	160 (40)
9	250-209	140 (35)
10	250-210	120 (30)
11	250-211	120 (30)
12	250-212	100 (25)
13	250-213	100 (25)
14	250-214	80 (20)
15	250-215	80 (20)
16	250-216	80 (20)
17	250-217	60 (15)
18	250-218	60 (15)
19	250-219	60 (15)
20	250-220	60 (15)
21	250-221	60 (15)
22	250-222	60 (15)
23	250-223	40 (10)
24	250-224	40 (10)



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

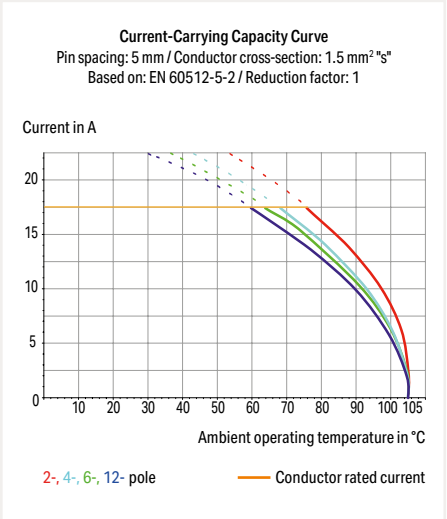
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Terminal strips with spacers
- Direct marking

PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Color: gray

1

- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring



Electrical Data						
Pin spacing	**5 mm / 0.197 inch**			**7.5 mm / 0.295 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.5 … 1.5 mm² / 20 … 14 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 18 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

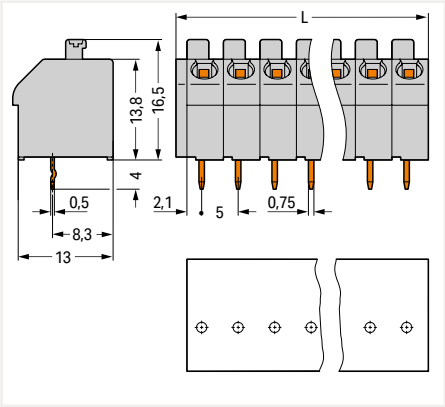
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Color: gray

Pin spacing: 5 mm / 0.197 inch

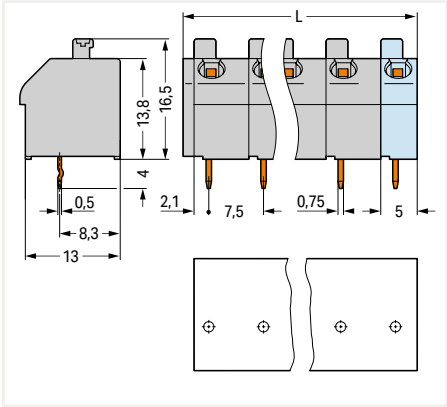
Pole No.	Item No.	PU (SPU)
2	250-502	400 (100)
3	250-503	280 (70)
4	250-504	220 (55)
5	250-505	180 (45)
6	250-506	140 (35)
7	250-507	120 (30)
8	250-508	100 (25)
9	250-509	100 (25)
10	250-510	80 (20)
11	250-511	80 (20)
12	250-512	60 (15)
13	250-513	60 (15)
14	250-514	60 (15)
15	250-515	60 (15)
16	250-516	40 (10)



L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 7.5 mm / 0.295 inch

Pole No.	Item No.	PU (SPU)
2	250-602	340 (85)
3	250-603	200 (50)
4	250-604	160 (40)
5	250-605	120 (30)
6	250-606	100 (25)
7	250-607	80 (20)
8	250-608	60 (15)
9	250-609	60 (15)
10	250-610	60 (15)
11	250-611	40 (10)
12	250-612	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

Double-deck PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: agate gray

1

- Space-saving, double-deck terminal strips with push-buttons
- Push-in termination of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring

Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.75 … 1.5 mm²
Fine-stranded conductor; with insulated ferrule	0.5 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 1 mm²

Material Data	
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

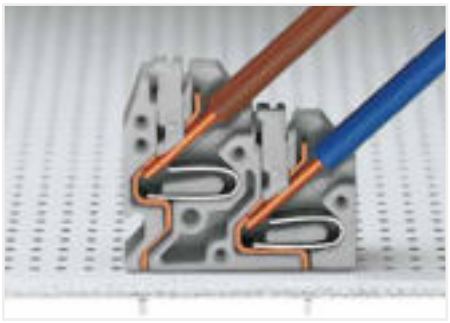
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.2 $^{(-0.1 \ldots +0.1)}$ mm

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

Double-deck PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: agate gray

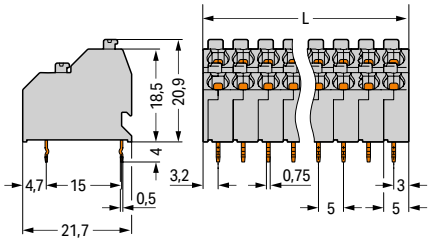
250-712



Space-saving wiring – push-in termination of solid conductors.

Pole No.	Item No.	PU (SPU)
4	250-702	264 (66)
6	250-703	180 (45)
8	250-704	132 (33)
12	250-706	84 (21)
16	250-708	72 (18)
20	250-710	48 (12)
24	250-712	48 (12)
32	250-716	36 (9)

Testing with 2 mm Ø test plug – touch contact.



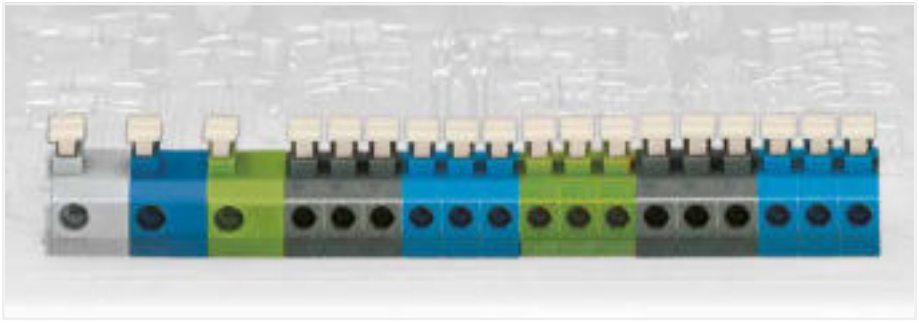
L = (pole no. x pin spacing) + 1.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking

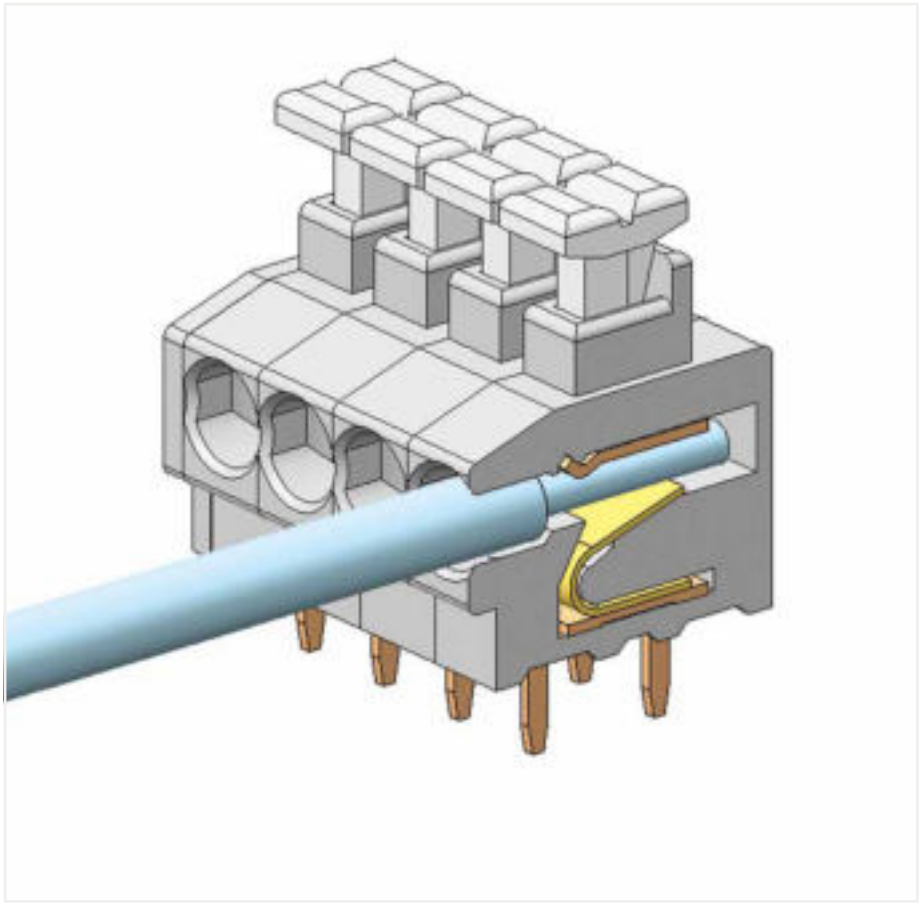
235 Series
Description and Installation



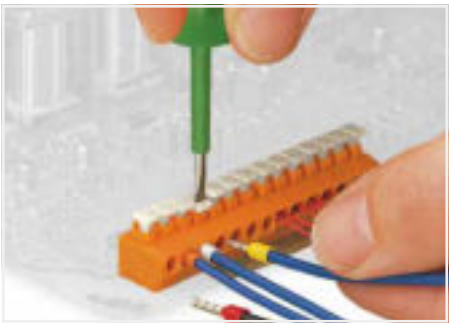
Combining terminal blocks with different housing colors and pin spacing.

Inserting solid conductors via push-in termination.

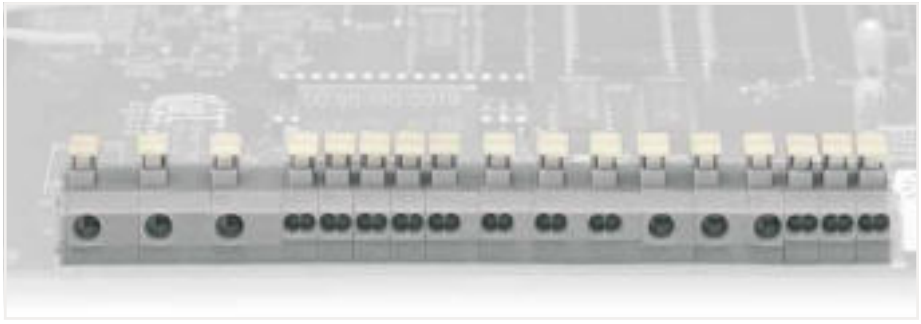
Inserting/removing fine-stranded conductors via push-button.



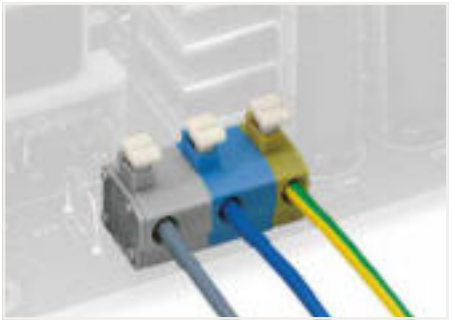
235 Series



Inserting/removing fine-stranded conductors with ferrules via push-button.



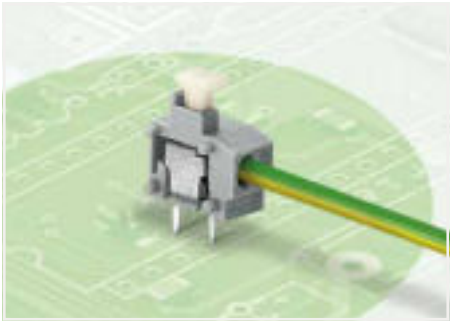
Combining 1- and 2-conductor terminal blocks with different pin spacing
2-conductor terminal blocks, see www.wago.com



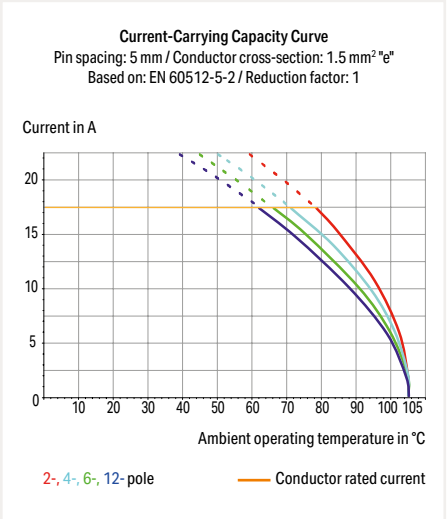
Application example: field-wiring terminal strip

Stackable PCB terminal block ▸ 235 Series
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm²

1



- Modular PCB terminal blocks with push-buttons for custom terminal strip assemblies
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Set to metric or inch pin spacing by compressing terminal strips or pulling them apart



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	-	300 V	-	-	300 V	-	-
Rated current	15 A	-	-	15 A	-	-	15 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 1.5 mm² / 20 … 14 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 20 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.8 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

See technical section for further information

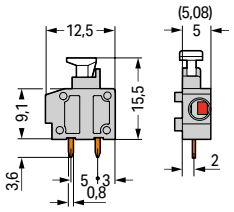
For approvals and corresponding ratings, visit www.wago.com

Stackable PCB terminal block ▸ 235 Series
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

235-401/331-000

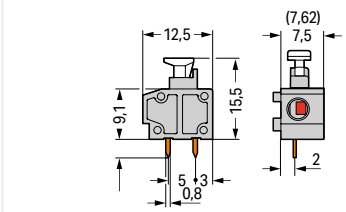
Color	Item No.	PU (SPU)
gray	235-401/331-000	800 (100)
blue	235-744/331-000	800 (100)
orange	235-746/331-000	800 (100)
white	235-745/331-000	800 (100)
black	235-748/331-000	800 (100)
yellow	235-741/331-000	800 (100)
light gray	235-743/331-000	800 (100)
light green	235-747/331-000	800 (100)
violet	235-749/331-000	800 (100)
red	235-740/331-000	800 (100)
dark gray	235-742/331-000	800 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

235-501/331-000

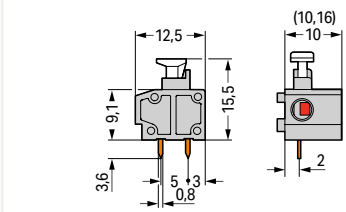
Color	Item No.	PU (SPU)
gray	235-501/331-000	600 (100)
blue	235-754/331-000	600 (100)
orange	235-756/331-000	600 (100)
black	235-758/331-000	600 (100)
light gray	235-753/331-000	600 (100)
light green	235-757/331-000	600 (100)
dark gray	235-752/331-000	600 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch

235-801/331-000

Color	Item No.	PU (SPU)
gray	235-801/331-000	400 (100)
blue	235-764/331-000	400 (100)
orange	235-766/331-000	400 (100)
light green	235-767/331-000	400 (100)
dark gray	235-762/331-000	400 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	235-100	2000 (100)
blue	235-400	2000 (100)
orange	235-600	2000 (100)
white	235-850	2000 (100)
black	235-500	2000 (100)
yellow	235-550	2000 (100)
light gray	235-300	2000 (100)
light green	235-700	2000 (100)
violet	235-650	2000 (100)
red	235-800	2000 (100)
dark gray	235-200	2000 (100)

Intermediate plate; Extends pin spacing; Width: 5 mm / 0.197 inch

Color	Item No.	PU (SPU)
gray	235-701	1000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

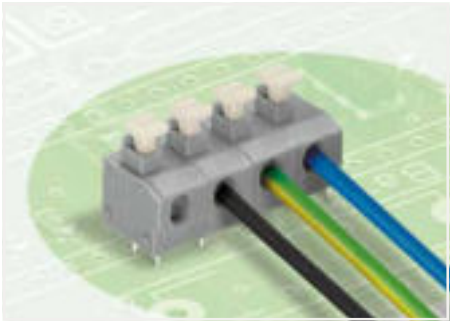
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors

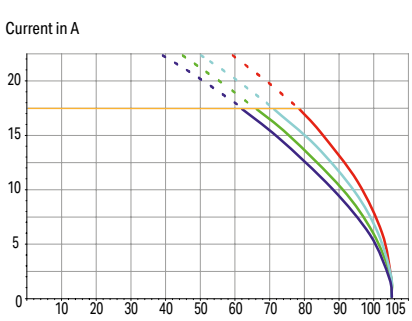
PCB terminal block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

1



- PCB terminal strips with push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Set to metric or inch pin spacing by compressing terminal strips or pulling them apart



Electrical Data			
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	15 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 1.5 mm² / 20 … 14 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 20 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.8 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

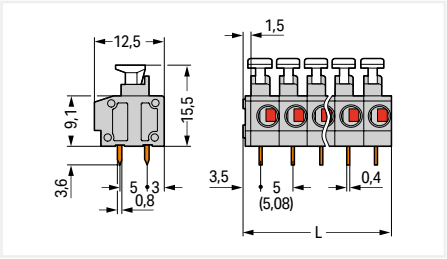
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

Pole No.	Item No.	PU (SPU)
2	235-402/331-000	420 (105)
3	235-403/331-000	280 (70)
4	235-404/331-000	220 (55)
5	235-405/331-000	180 (45)
6	235-406/331-000	140 (35)
7	235-407/331-000	120 (30)
8	235-408/331-000	100 (25)
9	235-409/331-000	100 (25)
10	235-410/331-000	80 (20)
12	235-412/331-000	60 (15)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

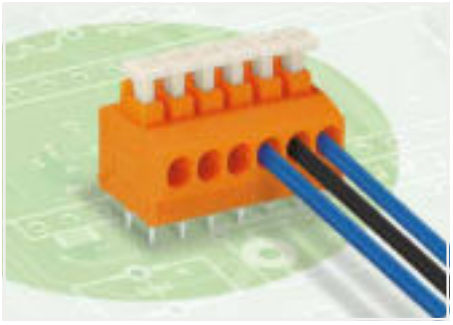
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Terminal strips with 7.5/7.62 mm and 10/10.16 mm pin spacing
- Mixed-color PCB connector strips
- Direct marking

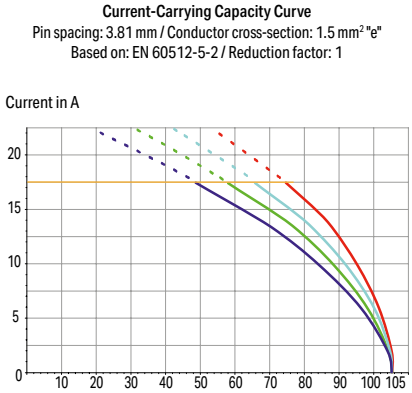
Stackable PCB terminal block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch

1



- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons



Electrical Data			
Pin spacing	3.81 mm / 0.15 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.8 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Tool	Page 870

See technical section for further information

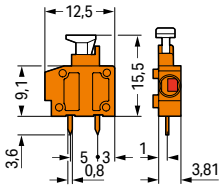
For approvals and corresponding ratings, visit www.wago.com

Stackable PCB terminal block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch

235-101

Color	Item No.	PU (SPU)
gray	235-771	800 (100)
blue	235-774	800 (100)
orange	235-101	800 (100)
white	235-775	800 (100)
black	235-778	800 (100)
yellow	235-776	800 (100)
light green	235-777	800 (100)
red	235-770	800 (100)
dark gray	235-772	800 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	235-100	2000 (100)
blue	235-400	2000 (100)
orange	235-600	2000 (100)
white	235-850	2000 (100)
black	235-500	2000 (100)
yellow	235-550	2000 (100)
light green	235-700	2000 (100)
red	235-800	2000 (100)
dark gray	235-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

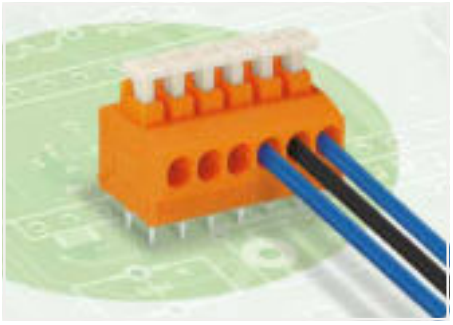
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors

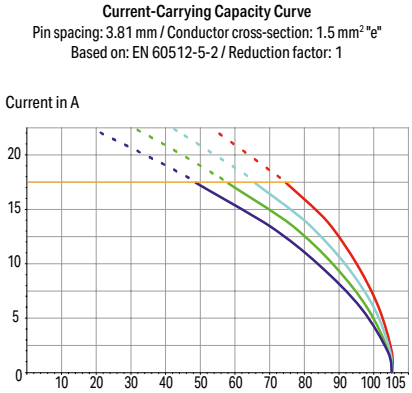
PCB terminal block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

1



- PCB terminal strips with push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons



Electrical Data			
Pin spacing	3.81 mm / 0.15 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.8 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Tool	Page 870

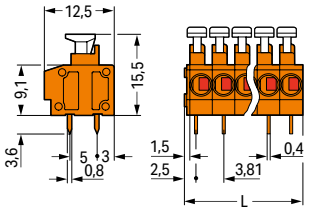
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

Pole No.	Item No.	PU (SPU)
2	235-102	520 (130)
3	235-103	360 (90)
4	235-104	280 (70)
5	235-105	220 (55)
6	235-106	180 (45)
7	235-107	160 (40)
8	235-108	140 (35)
9	235-109	120 (30)
10	235-110	120 (30)
12	235-112	100 (25)



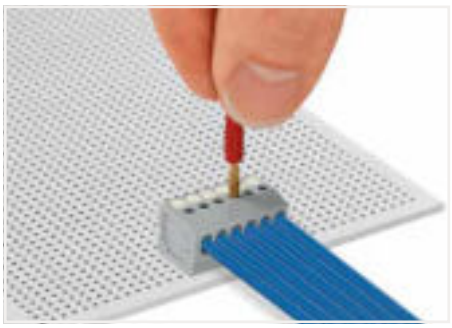
L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

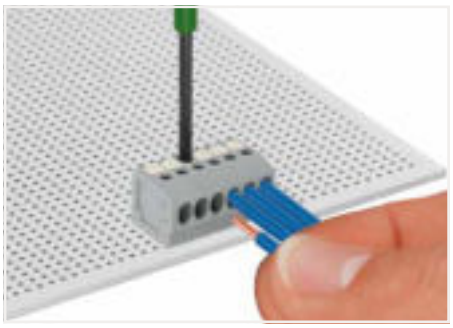
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

805 Series
Description and Installation



Testing with 2 mm Ø test plug.

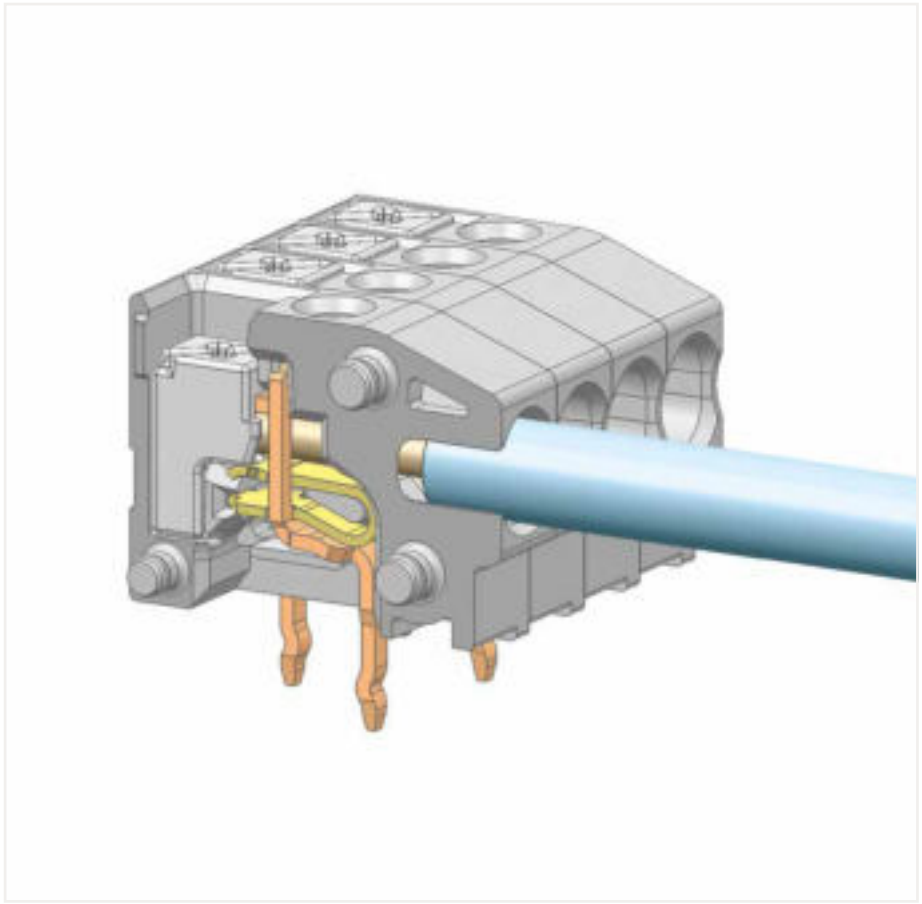


Terminating solid conductors by simply pushing them in. Removing conductors and inserting fine-stranded conductors via push-buttons.

Mixed-color terminal strips are available upon request.

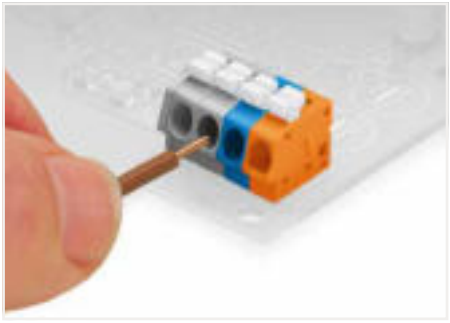
Terminal strips with spacers and enlarged conductor entry (5 mm pin spacing) are available upon request.

WAGO's 805 Series Terminal Strips provide "internal commoning" to meet requirements that ban routing the ground conductor over the board. This enables custom terminal strips to be commoned and marked at the factory upon request.



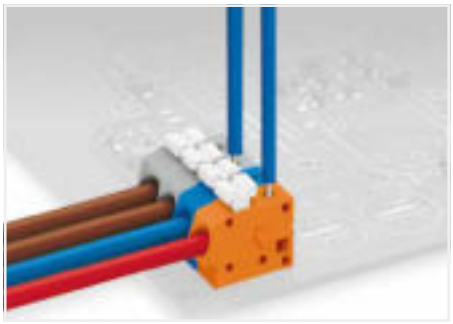
805 Series

804 Series
Description and Installation

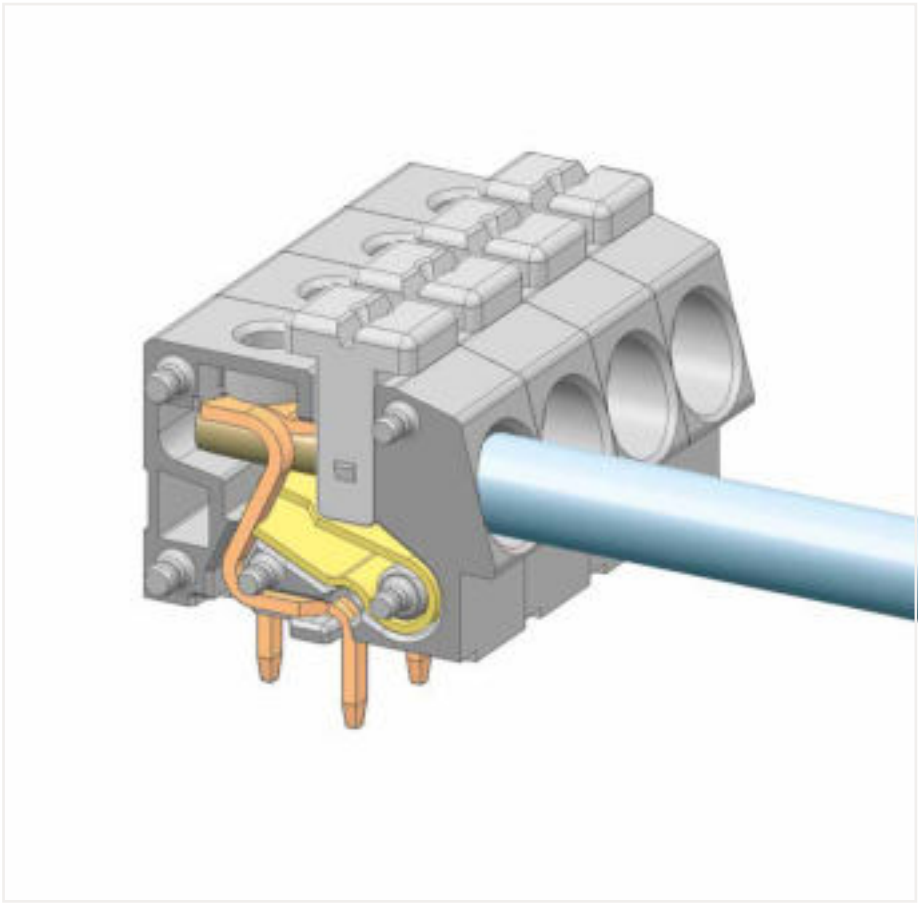


Terminating solid conductors: Simply push in stripped conductor until it hits backstop.

Inserting/removing fine-stranded conductors: Open the clamping unit via push-button and insert stripped conductor until it hits backstop.



Testing with 1 mm Ø test pin – manual touch contact.



804 Series

WAGO's 804 Series Terminal Strips provide "internal commoning" to meet requirements that ban routing the ground conductor over the board. This enables custom terminal strips to be commoned and marked at the factory upon request.

Mixed-color terminal strips are available upon request.

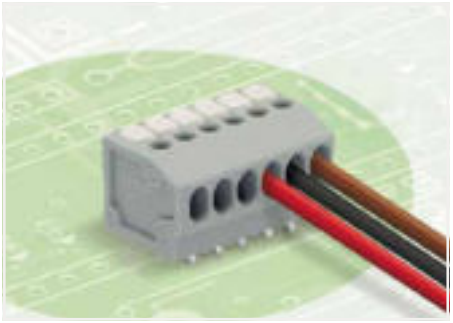
Terminal strips with spacer are available upon request.

Labeling via self-adhesive marking strips or factory direct marking.

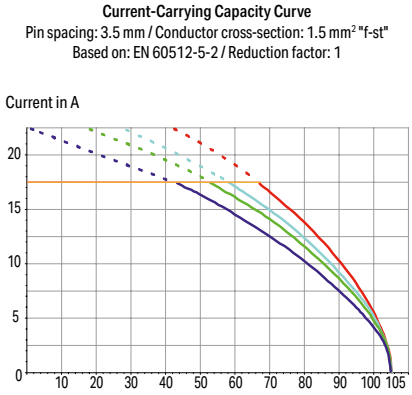
PCB terminal block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

1



- PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Flush-mount push-buttons that close with minimal force for convenient termination/removal of fine-stranded conductors
- Convenient, tool-free operation
- Versions with/without test slots and spacers
- Versions available with custom internal commoning (factory assembly), e.g., commoning ground conductor



Electrical Data			
Pin spacing	**3.5 mm / 0.138 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	10 A	10 A	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.2 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (in-line) ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

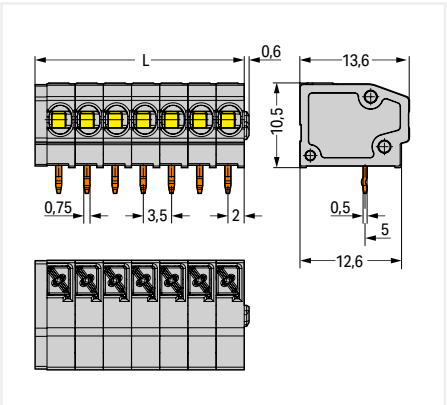
	Number of test slots: 1

805-356

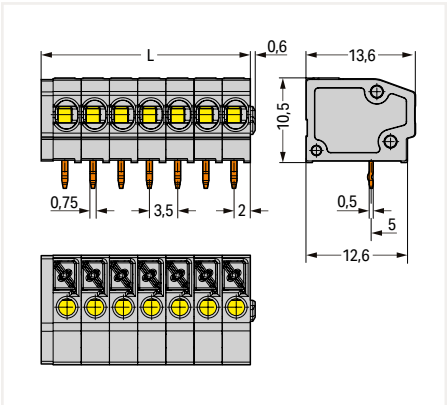
805-156

Pole No.	Item No.	PU (SPU)
2	805-352	600 (150)
3	805-353	420 (105)
4	805-354	300 (75)
5	805-355	260 (65)
6	805-356	220 (55)
7	805-357	180 (45)
8	805-358	160 (40)
9	805-359	140 (35)
10	805-360	120 (30)
11	805-361	100 (25)
12	805-362	100 (25)
13	805-363	100 (25)
14	805-364	100 (25)
15	805-365	80 (20)
16	805-366	80 (20)
17	805-367	80 (20)
18	805-368	60 (15)
19	805-369	60 (15)
20	805-370	60 (15)
21	805-371	60 (15)
22	805-372	60 (15)
23	805-373	60 (15)
24	805-374	40 (10)

Pole No.	Item No.	PU (SPU)
2	805-152	600 (150)
3	805-153	420 (105)
4	805-154	320 (80)
5	805-155	260 (65)
6	805-156	220 (55)
7	805-157	180 (45)
8	805-158	160 (40)
9	805-159	140 (35)
10	805-160	120 (30)
11	805-161	100 (25)
12	805-162	100 (25)
13	805-163	100 (25)
14	805-164	100 (25)
15	805-165	80 (20)
16	805-166	80 (20)
17	805-167	80 (20)
18	805-168	60 (15)
19	805-169	60 (15)
20	805-170	60 (15)
21	805-171	60 (15)
22	805-172	60 (15)
23	805-173	60 (15)
24	805-174	40 (10)



L = (pole no. x pin spacing) + 1.5 mm



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

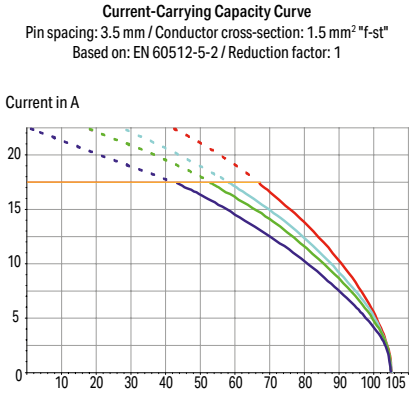
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (staggered) ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

1

- PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Flush-mount push-buttons that close with minimal force for convenient termination/removal of fine-stranded conductors
- Convenient, tool-free operation
- Versions with/without test slots and spacers
- Versions available with custom internal commoning (factory assembly), e.g., commoning ground conductor



Electrical Data			
Pin spacing	**3.5 mm / 0.138 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	10 A	10 A	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin length	3.2 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

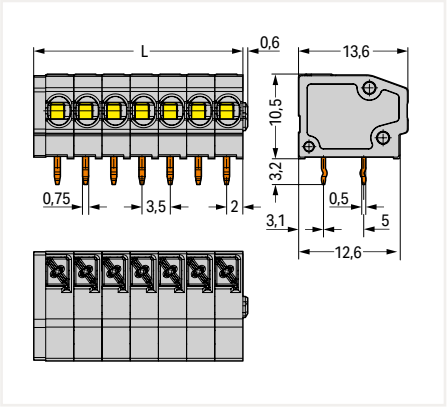
PCB terminal block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (staggered) ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

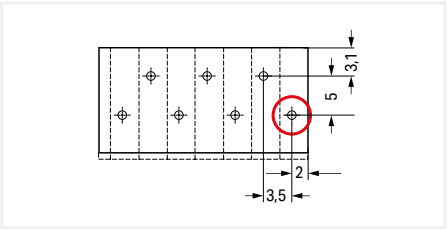
805-306

Pole No.	Item No.	PU (SPU)
2	805-302	580 (145)
3	805-303	420 (105)
4	805-304	320 (80)
5	805-305	260 (65)
6	805-306	220 (55)
7	805-307	180 (45)
8	805-308	160 (40)
9	805-309	140 (35)
10	805-310	120 (30)
11	805-311	100 (25)
12	805-312	100 (25)
13	805-313	100 (25)

Pole No.	Item No.	PU (SPU)
14	805-314	100 (25)
15	805-315	80 (20)
16	805-316	80 (20)
17	805-317	80 (20)
18	805-318	60 (15)
19	805-319	60 (15)
20	805-320	60 (15)
21	805-321	60 (15)
22	805-322	60 (15)
23	805-323	60 (15)
24	805-324	40 (10)



L = (pole no. x pin spacing) + 1.5 mm



First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip (staggered) ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: gray

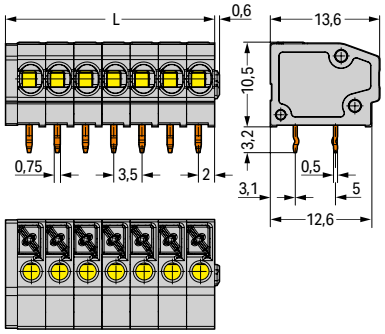
Number of test slots: 1

1

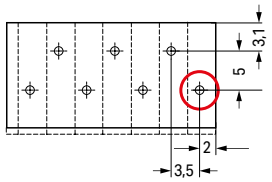
805-106

Pole No.	Item No.	PU (SPU)
2	805-102	580 (145)
3	805-103	420 (105)
4	805-104	320 (80)
5	805-105	260 (65)
6	805-106	220 (55)
7	805-107	180 (45)
8	805-108	160 (40)
9	805-109	140 (35)
10	805-110	120 (30)
11	805-111	100 (25)
12	805-112	100 (25)
13	805-113	100 (25)

Pole No.	Item No.	PU (SPU)
14	805-114	100 (25)
15	805-115	80 (20)
16	805-116	80 (20)
17	805-117	80 (20)
18	805-118	60 (15)
19	805-119	60 (15)
20	805-120	60 (15)
21	805-121	60 (15)
22	805-122	60 (15)
23	805-123	60 (15)
24	805-124	40 (10)



L = (pole no. x pin spacing) + 1.5 mm



First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

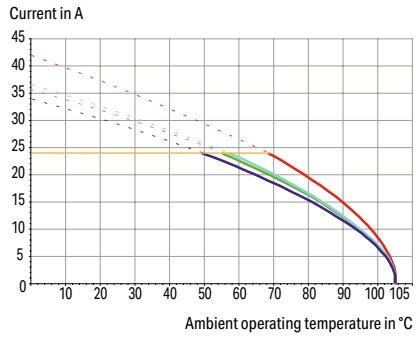
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 804 Series

Push-in CAGE CLAMP® ▸ 2.5 mm² ▸ Actuation type: Push-button ▸ Color: gray

1

- PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled, fine-stranded conductors
- A large conductor entry accommodates conductors with a cross-section up to 12 AWG with an insulation diameter up to 4.2 mm
- Terminal strips with spacers to increase pin spacing
- Versions available with custom internal commoning (factory assembly), e.g., commoning ground conductor



Electrical Data						
Pin spacing	**5 mm / 0.197 inch**			**7.5 mm / 0.295 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.25 … 2.5 mm² / 20 … 12 AWG
Fine-stranded conductor	0.25 … 2.5 mm² / 22 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.6 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

See technical section for further information

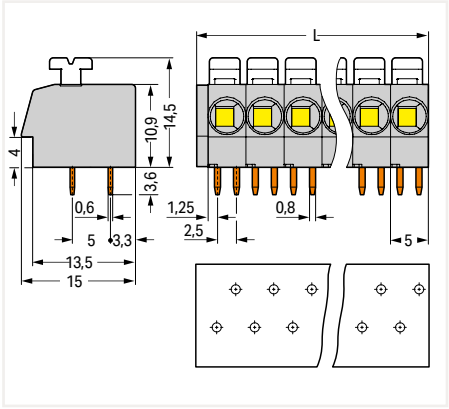
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 804 Series

Push-in CAGE CLAMP® ▸ 2.5 mm² ▸ Actuation type: Push-button ▸ Color: gray

Pin spacing: 5 mm / 0.197 inch

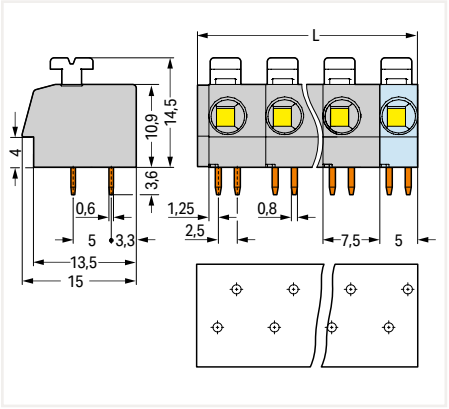
Pole No.	Item No.	PU (SPU)
2	804-102	420 (105)
3	804-103	300 (75)
4	804-104	220 (55)
5	804-105	180 (45)
6	804-106	140 (35)
7	804-107	120 (30)
8	804-108	120 (30)
9	804-109	100 (25)
10	804-110	80 (20)
11	804-111	80 (20)
12	804-112	80 (20)
13	804-113	60 (15)
14	804-114	60 (15)
15	804-115	60 (15)
16	804-116	60 (15)



L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 7.5 mm / 0.295 inch

Pole No.	Item No.	PU (SPU)
2	804-302	340 (85)
3	804-303	220 (55)
4	804-304	160 (40)
5	804-305	120 (30)
6	804-306	100 (25)
7	804-307	80 (20)
8	804-308	80 (20)
9	804-309	60 (15)
10	804-310	60 (15)
11	804-311	60 (15)
12	804-312	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- 10 mm pin spacing version with spacers
- Direct marking
- Versions for Ex i

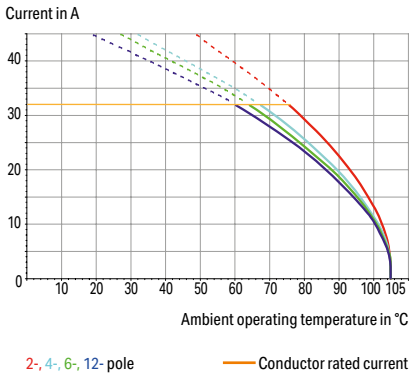
PCB terminal block ▸ 2604 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Modular terminal block ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1

- PCB terminal blocks with lever-actuated Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 4 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	5 mm / 0.197 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	400 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	32 A	32 A	32 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 11 mm / 0.35 … 0.43 inch
Solid conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

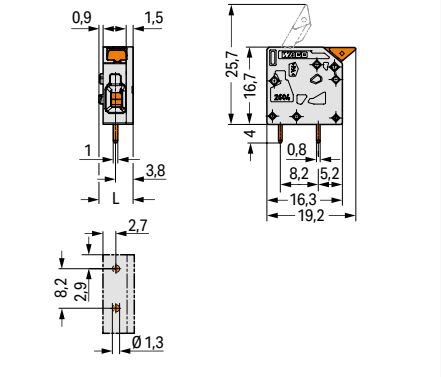
PCB terminal block ▸ 2604 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Modular terminal block ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

Conductor connection direction to PCB: 0 °

2604-1101

Color	Item No.	PU
gray	2604-1101	300

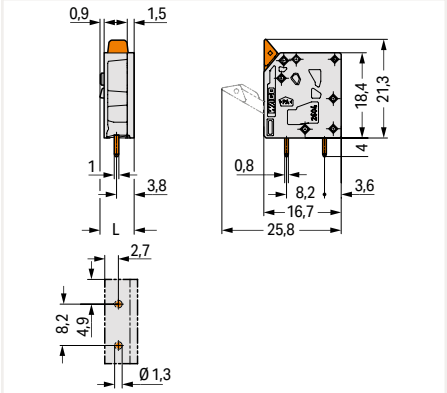


L = 7.4 mm

Conductor connection direction to PCB: 90 °

2604-3101

Color	Item No.	PU
gray	2604-3101	250



L = 7.4 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

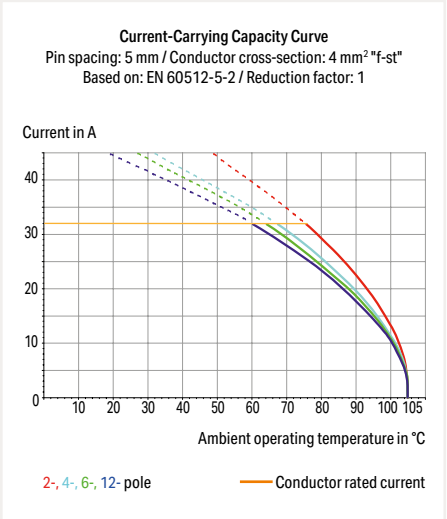
- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2604 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

1

- PCB terminal blocks with levers and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data									
Pin spacing	**5 mm / 0.197 inch**			**7.5 mm / 0.295 inch**			**11.5 mm / 0.453 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	400 V	630 V	630 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	20 A	-	10 A	20 A	20 A	5 A	20 A	20 A	-
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	300 V	-
Rated current	20 A	-	5 A	20 A	20 A	5 A	20 A	20 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 11 mm / 0.35 … 0.43 inch
Solid conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

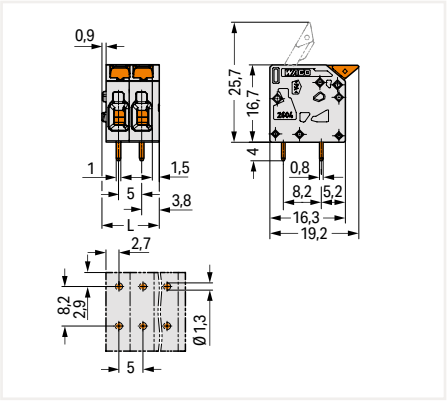
PCB terminal block ▸ 2604 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 5 mm / 0.197 inch

2604-1103

Pole No.	Item No.	PU
2	2604-1102	200
3	2604-1103	130
4	2604-1104	100
5	2604-1105	80
6	2604-1106	60
7	2604-1107	60
8	2604-1108	50
9	2604-1109	40
10	2604-1110	40
11	2604-1111	30
12	2604-1112	30

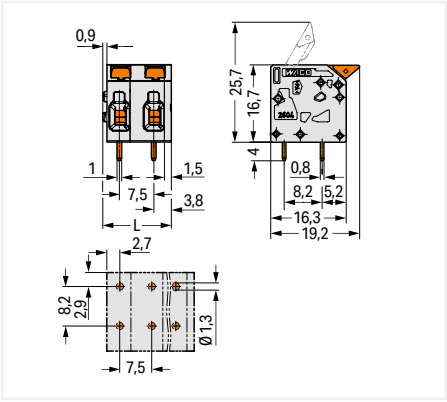


L = (pole no. – 1) x pin spacing + 7.4 mm

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 7.5 mm / 0.295 inch

2604-1303

Pole No.	Item No.	PU
2	2604-1302	150
3	2604-1303	100
4	2604-1304	70
5	2604-1305	60
6	2604-1306	45
7	2604-1307	40
8	2604-1308	35
9	2604-1309	30
10	2604-1310	25
11	2604-1311	25
12	2604-1312	25

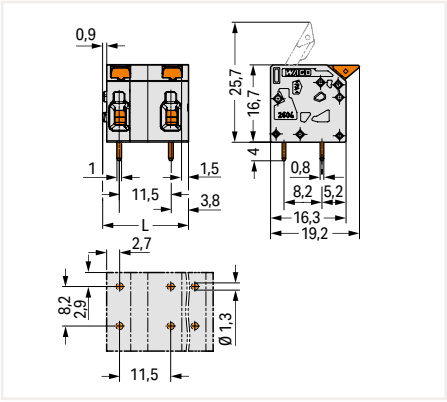


L = (pole no. – 1) x pin spacing + 7.4 mm

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 11.5 mm / 0.453 inch

2604-1503

Pole No.	Item No.	PU
2	2604-1502	130
3	2604-1503	70
4	2604-1504	50
5	2604-1505	40
6	2604-1506	30
7	2604-1507	25
8	2604-1508	25
9	2604-1509	25
10	2604-1510	20
11	2604-1511	20
12	2604-1512	15



L = (pole no. – 1) x pin spacing + 7.4 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2604 Series

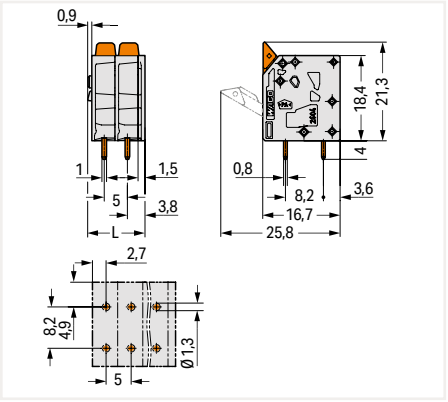
Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

1

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 5 mm / 0.197 inch

2604-3103

Pole No.	Item No.	PU
2	2604-3102	180
3	2604-3103	120
4	2604-3104	90
5	2604-3105	70
6	2604-3106	50
7	2604-3107	50
8	2604-3108	40
9	2604-3109	40
10	2604-3110	30
11	2604-3111	30
12	2604-3112	30

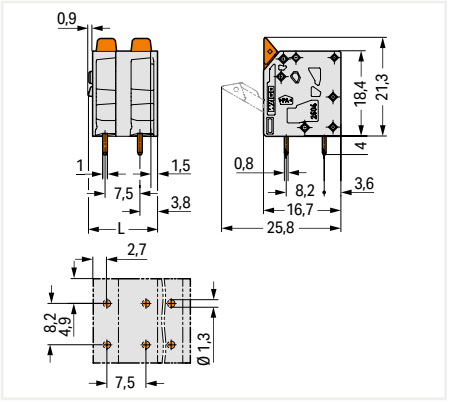


L = (pole no. – 1) x pin spacing + 7.4 mm

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 7.5 mm / 0.295 inch

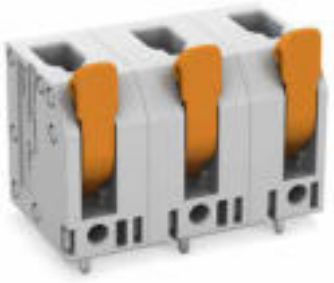
2604-3303

Pole No.	Item No.	PU
2	2604-3302	150
3	2604-3303	100
4	2604-3304	70
5	2604-3305	50
6	2604-3306	45
7	2604-3307	40
8	2604-3308	30
9	2604-3309	30
10	2604-3310	25
11	2604-3311	25
12	2604-3312	25



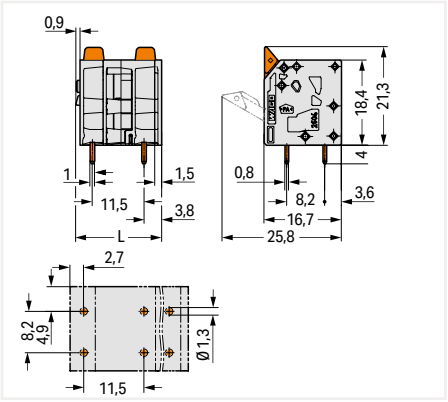
L = (pole no. – 1) x pin spacing + 7.4 mm

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 11.5 mm / 0.453 inch



2604-3503

Pole No.	Item No.	PU
2	2604-3502	120
3	2604-3503	70
4	2604-3504	50
5	2604-3505	40
6	2604-3506	30
7	2604-3507	25
8	2604-3508	25
9	2604-3509	25
10	2604-3510	20
11	2604-3511	20
12	2604-3512	15



L = (pole no. – 1) x pin spacing + 7.4 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

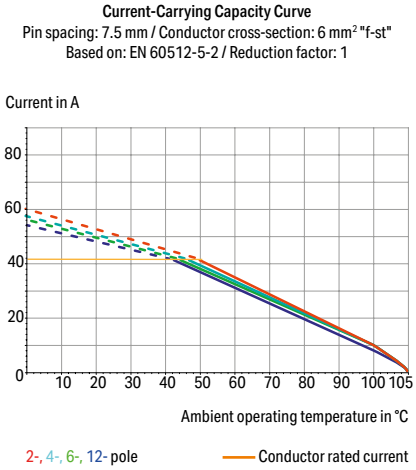
- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2606 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 10 mm² ▸ Modular terminal block ▸ Pin spacing: 7.5 mm / 0.295 inch ▸ Color: gray

1

- PCB terminal blocks with lever-actuated Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data			
Pin spacing	**7.5 mm / 0.295 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A
Approbations per		CSA	
Use group	B	C	D
Rated voltage	600 V	1000 V	-
Rated current	31 A	31 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	11 … 13 mm / 0.43 … 0.51 inch
Solid conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 6 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1.5 x 1.2 mm
Drilled hole diameter with tolerance	2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

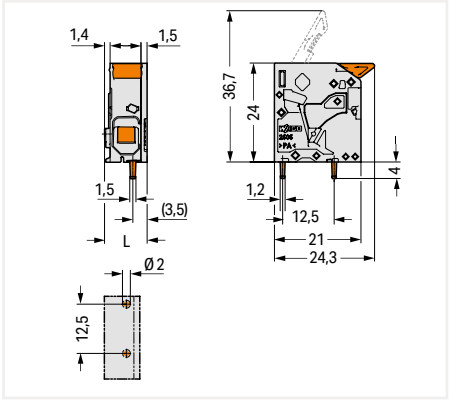
PCB terminal block ▸ 2606 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 10 mm² ▸ Modular terminal block ▸ Pin spacing: 7.5 mm / 0.295 inch ▸ Color: gray

Conductor connection direction to PCB: 0 °

2606-1101

Color	Item No.	PU
gray	2606-1101	200

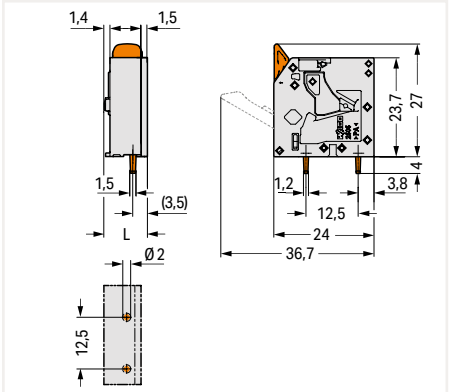


L = 10.35 mm

Conductor connection direction to PCB: 90 °

2606-3101

Color	Item No.	PU
gray	2606-3101	200



L = 10.35 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

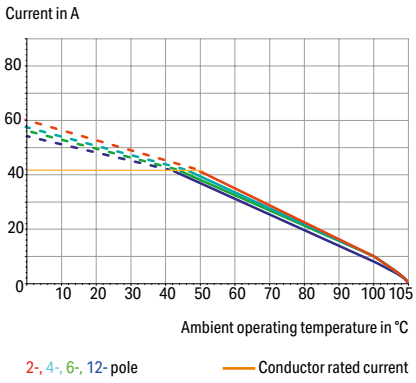
PCB terminal block ▸ 2606 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 10 mm² ▸ Terminal strip ▸ Color: gray

1

- PCB terminal blocks with levers and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data						
Pin spacing	**7.5 mm / 0.295 inch**			**12.5 mm / 0.492 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	800 V	1000 V	1000 V	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	600 V	600 V	-	600 V	600 V	-
Rated current	31 A	31 A	-	42 A	42 A	-
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	600 V	600 V	-	600 V	600 V	-
Rated current	31 A	31 A	-	31 A	31 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	11 … 13 mm / 0.43 … 0.51 inch
Solid conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 6 mm²
Fine-stranded conductor; with twin ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	1.5 x 1.2 mm
Drilled hole diameter with tolerance	2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

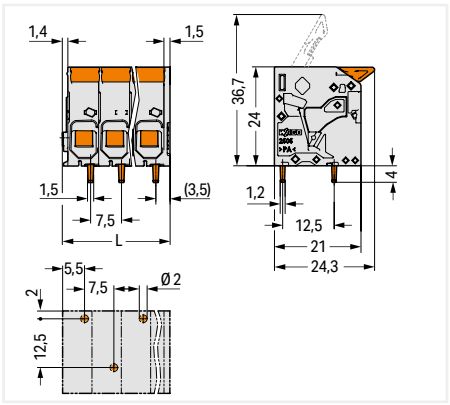
PCB terminal block ▸ 2606 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 10 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 7.5 mm / 0.295 inch

2606-1103/020-000

Pole No.	Item No.	PU
2	2606-1102/020-000	120
3	2606-1103/020-000	80
4	2606-1104/020-000	60
5	2606-1105/020-000	50
6	2606-1106/020-000	40
7	2606-1107/020-000	35
8	2606-1108/020-000	30
9	2606-1109/020-000	25
10	2606-1110/020-000	25
11	2606-1111/020-000	25
12	2606-1112/020-000	25

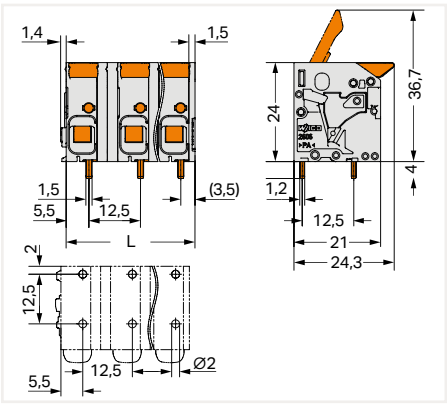


L = (pole no. – 1) x pin spacing + 10.35 mm

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 12.5 mm / 0.492 inch

2606-1353

Pole No.	Item No.	PU
2	2606-1352	80
3	2606-1353	58
4	2606-1354	44
5	2606-1355	40
6	2606-1356	34
7	2606-1357	26
8	2606-1358	24
9	2606-1359	24
10	2606-1360	24
11	2606-1361	15
12	2606-1362	12

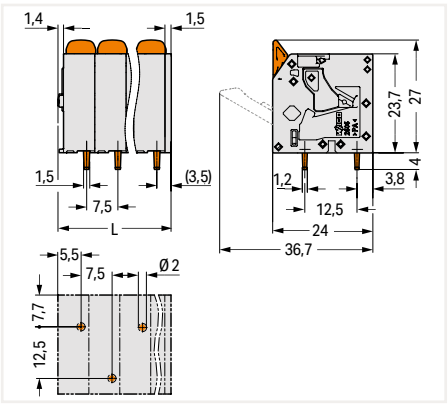


L = (pole no. – 1) x pin spacing + 9 mm

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 7.5 mm / 0.295 inch

2606-3103/020-000

Pole No.	Item No.	PU
2	2606-3102/020-000	120
3	2606-3103/020-000	80
4	2606-3104/020-000	60
5	2606-3105/020-000	50
6	2606-3106/020-000	40
7	2606-3107/020-000	35
8	2606-3108/020-000	30
9	2606-3109/020-000	25
10	2606-3110/020-000	25
11	2606-3111/020-000	25
12	2606-3112/020-000	25



L = (pole no. – 1) x pin spacing + 10.35 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2606 Series

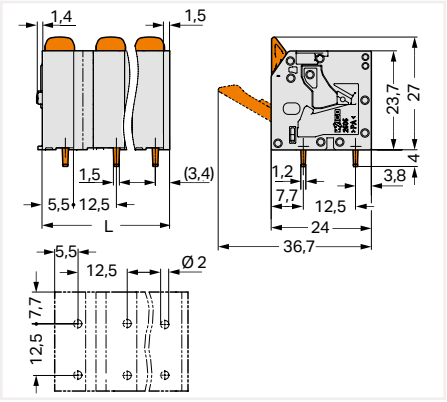
Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 10 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 12.5 mm / 0.492 inch

1

2606-3353

Pole No.	Item No.	PU
2	2606-3352	80
3	2606-3353	58
4	2606-3354	44
5	2606-3355	40
6	2606-3356	26
7	2606-3357	26
8	2606-3358	22
9	2606-3359	22
10	2606-3360	22
11	2606-3361	15
12	2606-3362	12



L = (pole no. – 1) x pin spacing + 9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

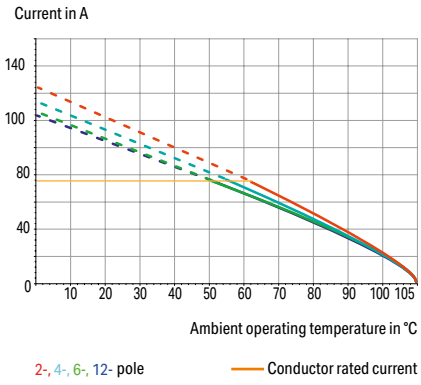
PCB terminal block ▸ 2616 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Modular terminal block ▸ Pin spacing: 10 mm / 0.394 inch ▸ Color: gray

1

- PCB terminal blocks with lever-actuated Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 10 mm / Conductor cross-section: 16 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**10 mm / 0.394 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A
Approbations per		CSA	
Use group	B	C	D
Rated voltage	600 V	1000 V	-
Rated current	72 A	72 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor; with insulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with uninsulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with twin ferrule	0.75 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

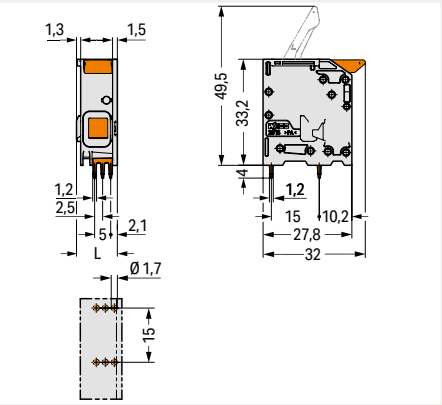
PCB terminal block ▸ 2616 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Modular terminal block ▸ Pin spacing: 10 mm / 0.394 inch ▸ Color: gray

Conductor connection direction to PCB: 0 °

2616-1101

Color	Item No.	PU
gray	2616-1101	100

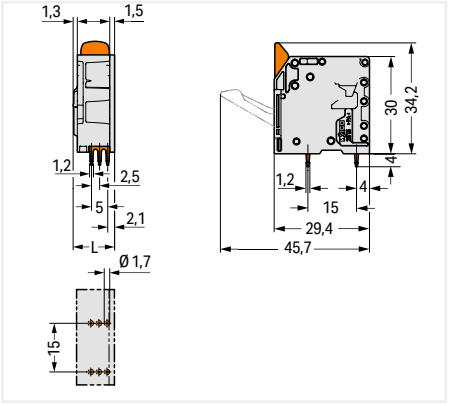


L = 12.8 mm

Conductor connection direction to PCB: 90 °

2616-3101

Color	Item No.	PU
gray	2616-3101	100



L = 12.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

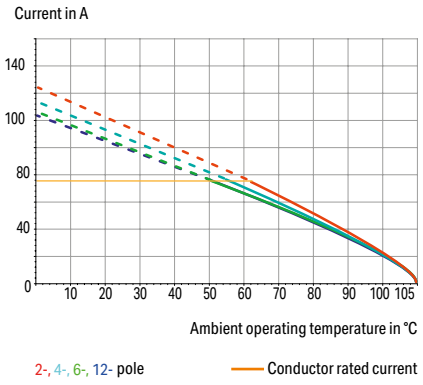
PCB terminal block ▸ 2616 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

1

- PCB terminal blocks with levers and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 10 mm / Conductor cross-section: 16 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Conductor connection direction to PCB	**0 °**			**0 °;90 °**			**90 °**		
Pin spacing	**10 mm / 0.394 inch**			**15 mm / 0.591 inch**			**10 mm / 0.394 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	1000 V	1000 V	1000 V	800 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	600 V	600 V	-	300 V	300 V	600 V	600 V	600 V	-
Rated current	66 A	66 A	-	78 A	78 A	5 A	66 A	66 A	-
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	600 V	600 V	-	300 V	300 V	600 V	600 V	600 V	-
Rated current	66 A	66 A	-	72 A	72 A	72 A	72 A	72 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor; with insulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with uninsulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with twin ferrule	0.75 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 879

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 2616 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 10 mm / 0.394 inch

Conductor connection direction to PCB: 0 ° ▸ Pin spacing: 15 mm / 0.591 inch

2616-1353

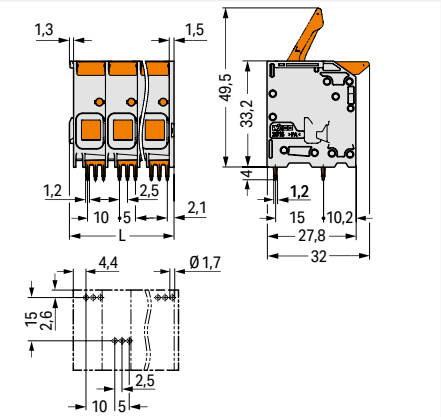
Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 10 mm / 0.394 inch

2616-3103/020-000

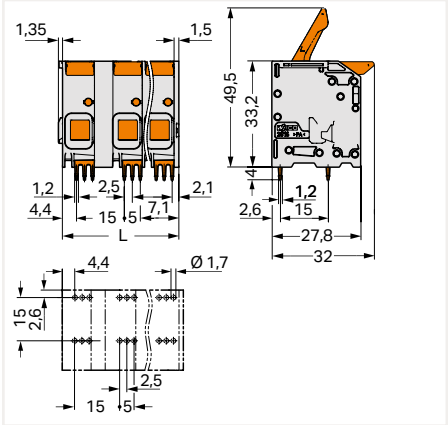
Pole No.	Item No.	PU
2	2616-1102/020-000	50
3	2616-1103/020-000	40
4	2616-1104/020-000	25
5	2616-1105/020-000	25
6	2616-1106/020-000	20
7	2616-1107/020-000	20
8	2616-1108/020-000	15
9	2616-1109/020-000	15
10	2616-1110/020-000	15
11	2616-1111/020-000	10
12	2616-1112/020-000	10

Pole No.	Item No.	PU
2	2616-1352	44
3	2616-1353	28
4	2616-1354	28
5	2616-1355	20
6	2616-1356	18
7	2616-1357	14
8	2616-1358	14

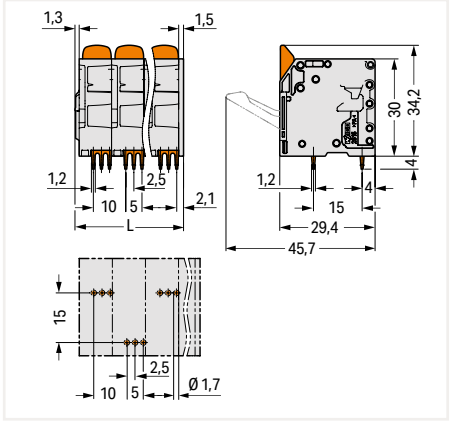
Pole No.	Item No.	PU
2	2616-3102/020-000	50
3	2616-3103/020-000	40
4	2616-3104/020-000	25
5	2616-3105/020-000	25
6	2616-3106/020-000	20
7	2616-3107/020-000	20
8	2616-3108/020-000	15
9	2616-3109/020-000	15
10	2616-3110/020-000	15
11	2616-3111/020-000	10
12	2616-3112/020-000	10



L = (pole no. – 1) x pin spacing + 12.8 mm



L = (pole no. – 1) x pin spacing + 11.5 mm



L = (pole no. – 1) x pin spacing + 12.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

PCB terminal block ▸ 2616 Series

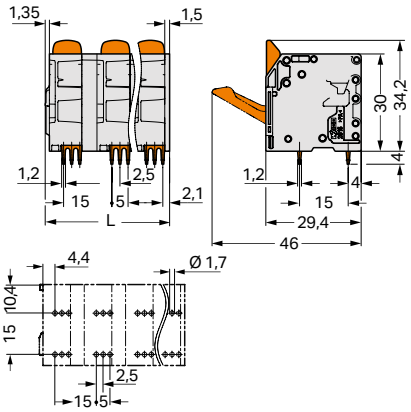
Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

Conductor connection direction to PCB: 90 ° ▸ Pin spacing: 15 mm / 0.591 inch

1

2616-3353

Pole No.	Item No.	PU
2	2616-3352	44
3	2616-3353	30
4	2616-3354	28
5	2616-3355	20
6	2616-3356	18
7	2616-3357	14
8	2616-3358	14



L = (pole no. – 1) x pin spacing + 11.5 mm

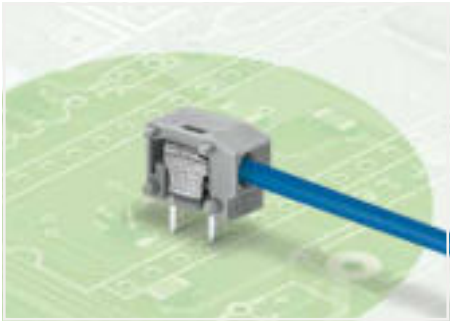
PU = Packaging Unit; SPU = Subpackaging Unit

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking
- Other colors

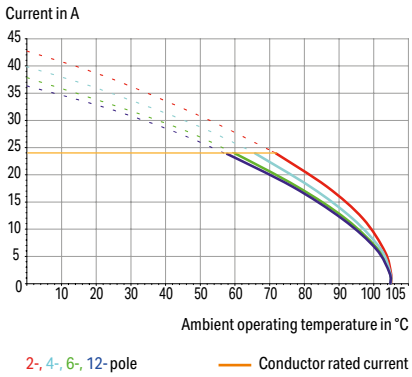
Stackable PCB terminal block ▸ 235 Series
PUSH WIRE® ▸ Actuation type: Operating tool ▸ 2.5 mm²

1



- Low-profile modular PCB terminal blocks with PUSH WIRE® connection for custom terminal strip assemblies
- Push-in termination of solid conductors
- Double solder pins for high mechanical stability
- Conductor removal via screwdriver (2.5 mm blade width)
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Also available with a test slot

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "e"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	-	300 V	-	-	300 V	-	-
Rated current	15 A	-	-	15 A	-	-	15 A	-	-

Connection Data

Connection technology	PUSH WIRE®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 2.5 mm² / 20 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.4 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

See technical section for further information

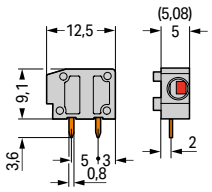
For approvals and corresponding ratings, visit www.wago.com

Stackable PCB terminal block ▸ 235 Series
PUSH WIRE® ▸ Actuation type: Operating tool ▸ 2.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

235-401

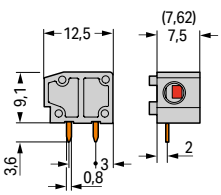
Color	Item No.	PU (SPU)
gray	235-401	800 (100)
blue	235-744	800 (100)
orange	235-746	800 (100)
light gray	235-743	800 (100)
light green	235-747	800 (100)
red	235-740	800 (100)
dark gray	235-742	800 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

235-501

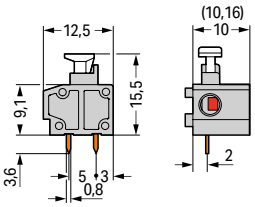
Color	Item No.	PU (SPU)
gray	235-501	600 (100)
blue	235-754	600 (100)
orange	235-756	600 (100)
light gray	235-753	600 (100)
light green	235-757	600 (100)
dark gray	235-752	600 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch

235-801

Color	Item No.	PU (SPU)
gray	235-801	400 (100)
orange	235-766	400 (100)
dark gray	235-762	400 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	235-100	2000 (100)
blue	235-400	2000 (100)
orange	235-600	2000 (100)
white	235-850	2000 (100)
black	235-500	2000 (100)
yellow	235-550	2000 (100)
light gray	235-300	2000 (100)
light green	235-700	2000 (100)
violet	235-650	2000 (100)
red	235-800	2000 (100)
dark gray	235-200	2000 (100)

Intermediate plate; Extends pin spacing; Width: 5 mm / 0.197 inch

Color	Item No.	PU (SPU)
gray	235-701	1000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

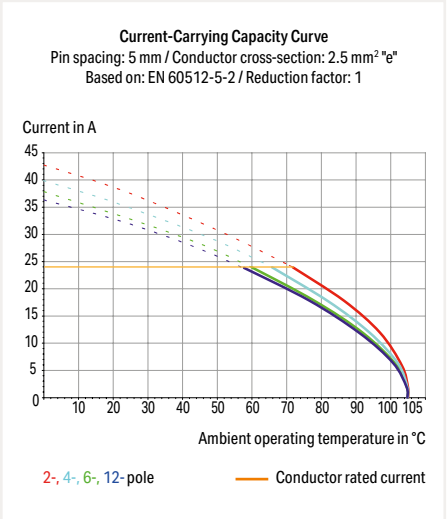
- Other colors

PCB terminal block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

1

- Low-profile PCB terminal strips with PUSH WIRE® connection for custom terminal strip assemblies
- Push-in termination for solid conductors
- Double solder pins for high mechanical stability
- Conductor removal via screwdriver (2.5mm x 0.4mm)
- Set to metric or inch pin spacing by compressing terminal strips or pulling them apart



Electrical Data			
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	15 A	-	-

Connection Data	
Connection technology	PUSH WIRE®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 2.5 mm² / 20 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.4 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

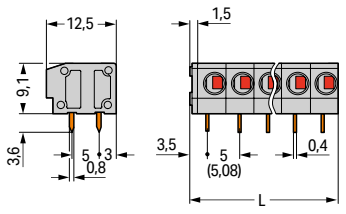
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

Pole No.	Item No.	PU (SPU)
2	235-402	420 (105)
3	235-403	280 (70)
4	235-404	220 (55)
5	235-405	180 (45)
6	235-406	140 (35)
7	235-407	120 (30)
8	235-408	100 (25)
9	235-409	100 (25)
10	235-410	80 (20)
12	235-412	60 (15)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

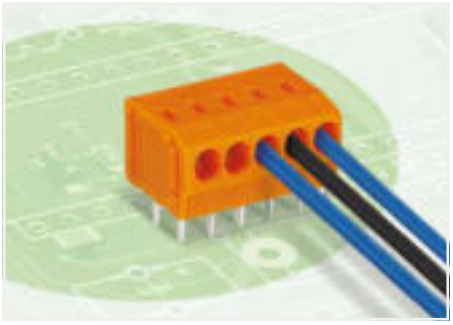
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Terminal strips with 7.5/7.62 mm and 10/10.16 mm pin spacing
- Mixed-color PCB connector strips
- Direct marking

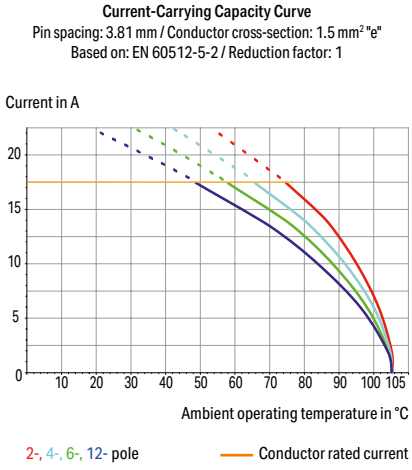
Stackable PCB terminal block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

1



- Low-profile PCB terminal blocks with PUSH WIRE® connection and screwdriver actuation
- Push-in termination of solid conductors
- Double solder pins for high mechanical stability
- Conductor removal via (2.5 x 0.4) mm screwdriver



Electrical Data			
Pin spacing	**3.81 mm / 0.15 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	PUSH WIRE®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.75 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.4 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Tool	Page 870

See technical section for further information

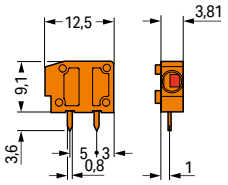
For approvals and corresponding ratings, visit www.wago.com

Stackable PCB terminal block ▸ 235 Series

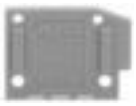
PUSH WIRE® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

235-101/330-000

Color	Item No.	PU (SPU)
orange	235-101/330-000	800 (100)



Accessories; for all products on this page



End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	235-100	2000 (100)
blue	235-400	2000 (100)
orange	235-600	2000 (100)
white	235-850	2000 (100)
black	235-500	2000 (100)
yellow	235-550	2000 (100)
light gray	235-300	2000 (100)
light green	235-700	2000 (100)
violet	235-650	2000 (100)
red	235-800	2000 (100)
dark gray	235-200	2000 (100)

Intermediate plate; Extends pin spacing; Width: 5 mm / 0.197 inch

Color	Item No.	PU (SPU)
gray	235-701	1000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

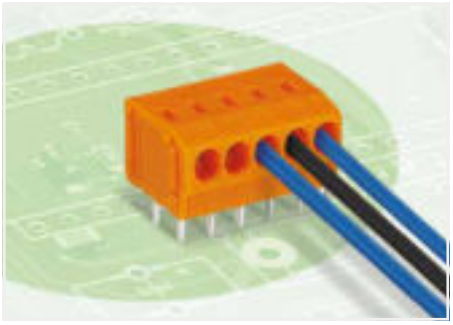
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors

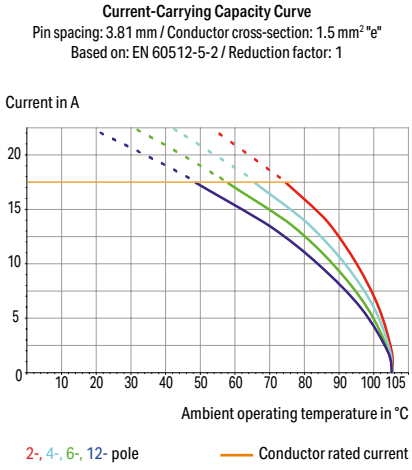
PCB terminal block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

1



- Low-profile terminal strips with screwdriver-actuated PUSH WIRE® termination
- Push-in termination of solid conductors
- Double solder pins for high mechanical stability
- Conductor removal via screwdriver (2.5 mm blade width)



Electrical Data			
Pin spacing	**3.81 mm / 0.15 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	PUSH WIRE®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.75 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.4 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Tool	Page 870

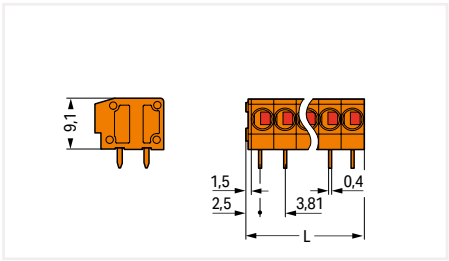
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

Pole No.	Item No.	PU (SPU)
2	235-102/330-000	520 (130)
3	235-103/330-000	360 (90)
4	235-104/330-000	280 (70)
5	235-105/330-000	220 (55)
6	235-106/330-000	180 (45)
7	235-107/330-000	160 (40)
8	235-108/330-000	140 (35)
9	235-109/330-000	120 (30)
10	235-110/330-000	120 (40)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

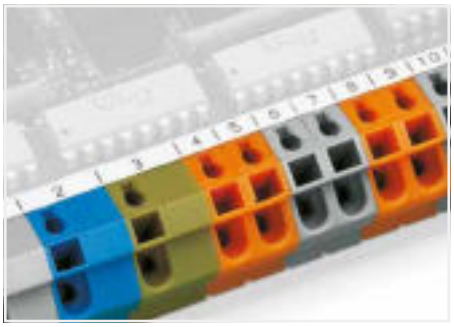
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

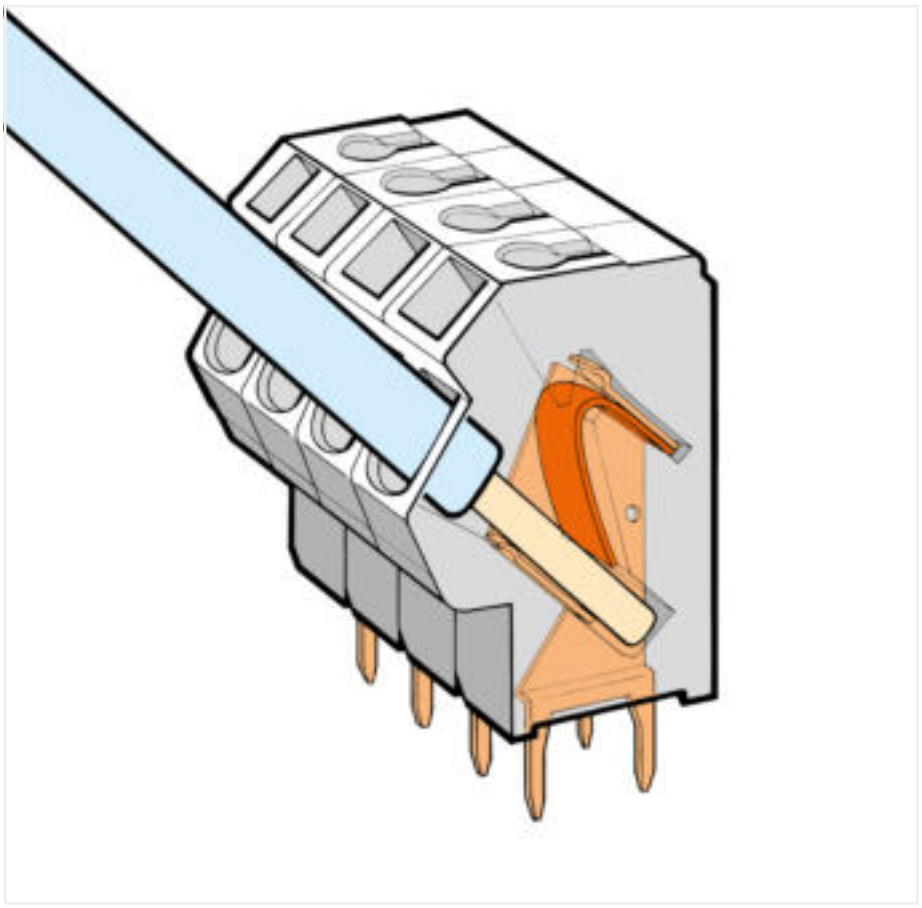
254 Series
Description and Installation

Inserting a solid conductors via push-in termination.

Inserting a tip-bonded conductor via screwdriver.

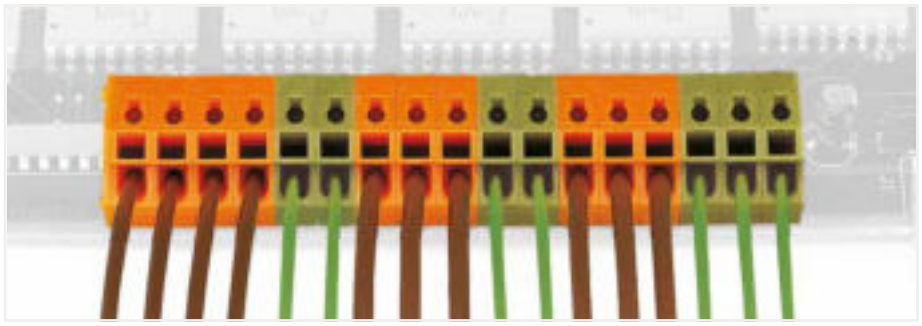


Labeling via self-adhesive marking strips.



Labeling via factory direct marking.

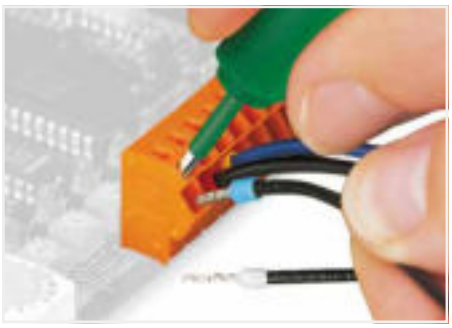
Application example: field-wiring terminal strip



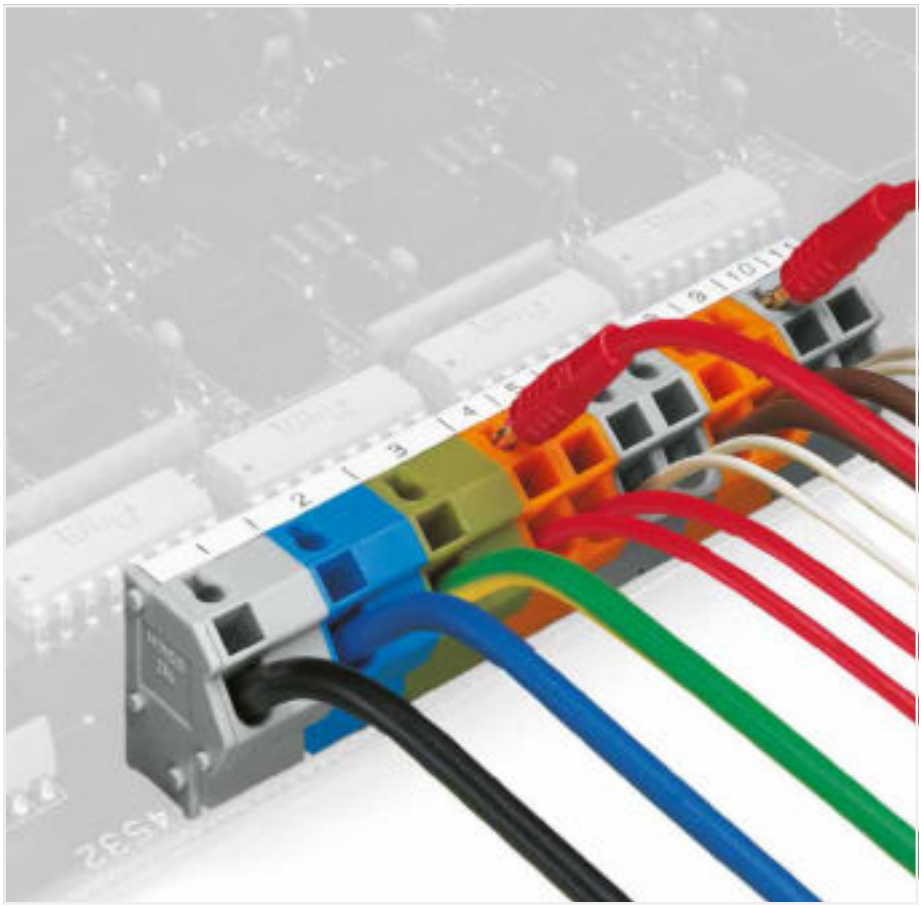
Mixed terminal strips can be assembled using different housing colors for the formation of groups.

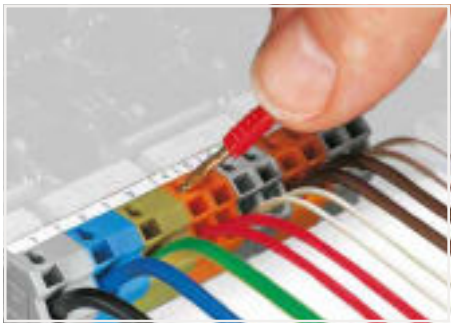
254 Series
Description and Installation

Removing a conductor.

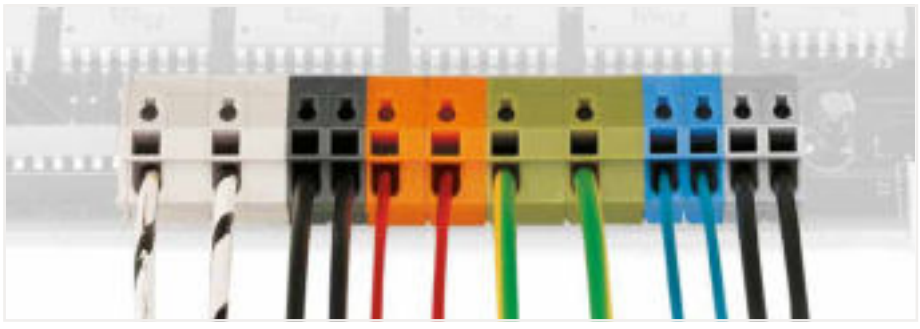


Inserting/removing a ferruled conductor.





Testing with 2 mm Ø test plug.

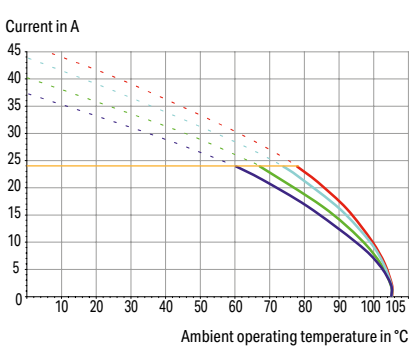


Mixed terminal strips can be assembled using different pin spacing and housing colors for the formation of groups.

Stackable PCB terminal block ▸ 254 Series
PUSH WIRE® ▸ Actuation type: Operating tool ▸ 2.5 mm²

1

- Modular PCB terminal blocks with PUSH WIRE® connection and screwdriver actuation for custom terminal strip assemblies
- Push-in termination of solid and ferruled conductors
- Test socket for 2 mm Ø test plug
- Save space on the PCB, just 8.9 mm deep
- Also available with 2-conductor connection



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.5 … 2.5 mm² / 20 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

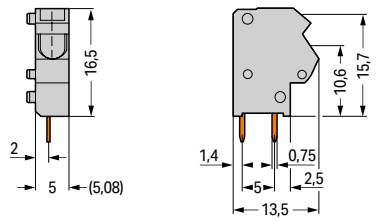
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

Stackable PCB terminal block ▸ 254 Series
PUSH WIRE® ▸ Actuation type: Operating tool ▸ 2.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

254-451

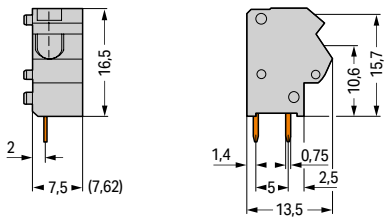
Color	Item No.	PU (SPU)
green-yellow	254-848	500 (100)
gray	254-451	500 (100)
blue	254-844	500 (100)
orange	254-846	500 (100)
light gray	254-843	500 (100)
light green	254-847	500 (100)
dark gray	254-842	500 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

254-551

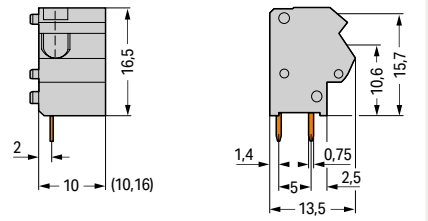
Color	Item No.	PU (SPU)
gray	254-551	400 (100)
blue	254-854	400 (100)
orange	254-856	400 (100)
light gray	254-853	400 (100)
light green	254-857	400 (100)
dark gray	254-852	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch

254-651

Color	Item No.	PU (SPU)
gray	254-651	300 (100)
blue	254-864	300 (100)
orange	254-866	300 (100)
light gray	254-863	300 (100)
light green	254-867	300 (100)
dark gray	254-862	300 (100)



Accessories; for all products on this page

End plate; Width: 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	254-100	2000 (100)
blue	254-400	2000 (100)
orange	254-600	2000 (100)
light gray	254-300	2000 (100)
light green	254-700	2000 (100)
dark gray	254-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

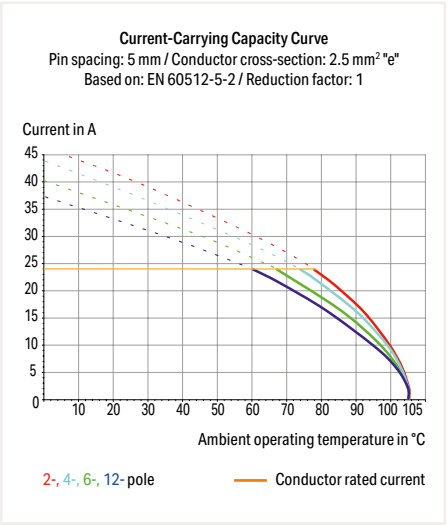
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors

PCB terminal block ▸ 254 Series
PUSH WIRE® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

1

- PCB terminal strips with screwdriver-actuated PUSH WIRE® termination
- Push-in termination of solid and ferruled, fine-stranded conductors
- Test socket for 2 mm Ø test plug
- Save space on the PCB, just 8.9 mm deep



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.5 … 2.5 mm² / 20 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

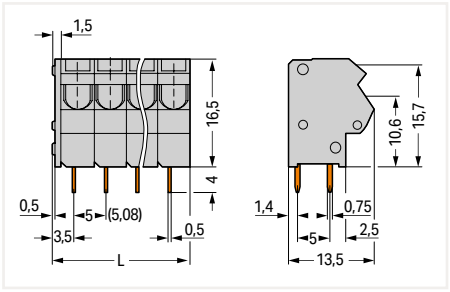
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 254 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

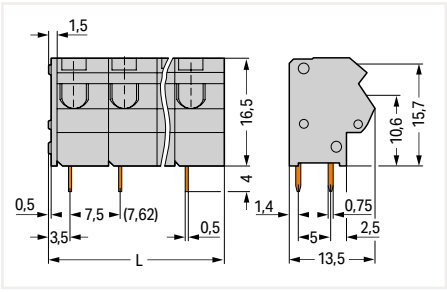
Pole No.	Item No.	PU (SPU)
2	254-452	420 (105)
3	254-453	280 (70)
4	254-454	220 (55)
5	254-455	180 (45)
6	254-456	140 (35)
7	254-457	120 (30)
8	254-458	100 (25)
9	254-459	100 (25)
10	254-460	80 (20)
12	254-462	80 (20)
16	254-466	60 (15)
24	254-474	40 (10)



L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

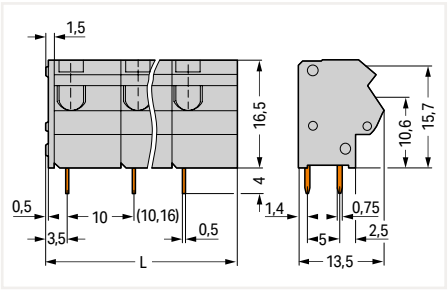
Pole No.	Item No.	PU (SPU)
2	254-552	280 (70)
3	254-553	200 (50)
4	254-554	140 (35)
5	254-555	120 (30)
6	254-556	100 (25)
7	254-557	80 (20)
8	254-558	80 (20)
9	254-559	60 (15)
10	254-560	60 (15)
12	254-562	40 (10)



L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Pole No.	Item No.	PU (SPU)
2	254-652	200 (50)
3	254-653	160 (40)
4	254-654	100 (25)
5	254-655	80 (20)
6	254-656	80 (20)
7	254-657	60 (15)
8	254-658	60 (15)
9	254-659	40 (10)
10	254-660	40 (10)
12	254-662	40 (10)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

PCB terminal block ▸ 744 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: white

1

- PCB terminal blocks with PUSH WIRE® connection
- Push-in termination of solid conductors – low insertion forces
- Just 6.4 mm tall
- Conductor removal via disconnection tool or by twist & pull

Electrical Data			
Pin spacing	**3.5 mm / 0.138 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	2 A	2 A	2 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	6 A	-	6 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin dimensions	0.35 x 0.9 mm
Drilled hole diameter with tolerance	1.1 $^{(-0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Tool Page 872

See technical section for further information

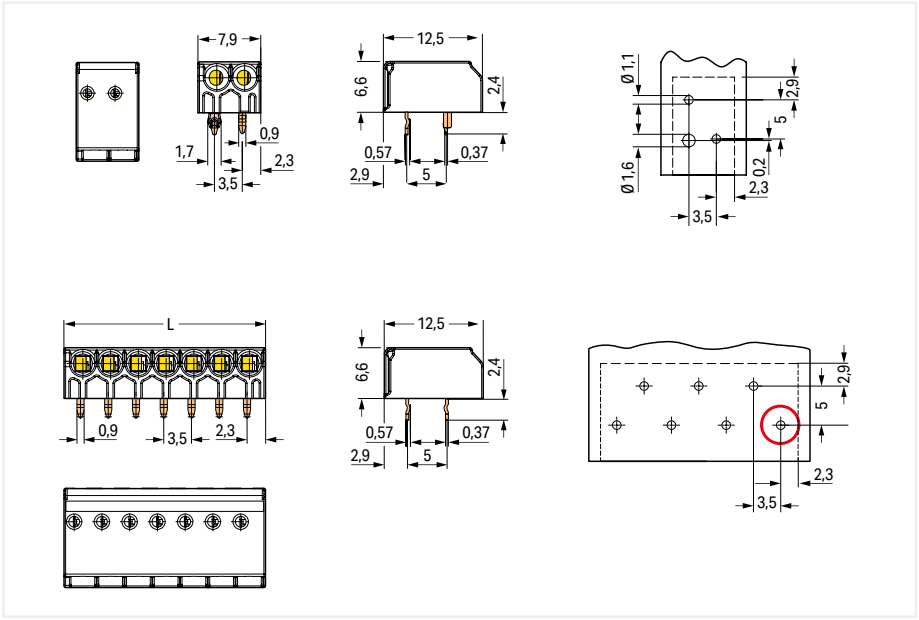
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 744 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: white

Solder pin length: 2.4 mm

Pole No.	Item No.	PU
2	744-392/364-000	1500
3	744-303/364-000	1000
4	744-304/364-000	800
6	744-306/364-000	500
7	744-307/364-000	300
8	744-308/364-000	300
10	744-310/364-000	200



„Two-pole version with additional anti-rotating pin
For 3 poles and more, L = (pole no. x pin spacing) + 0.9 mm
First solder pin, front right (red circle)“

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

PCB terminal block ▸ 744 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: white

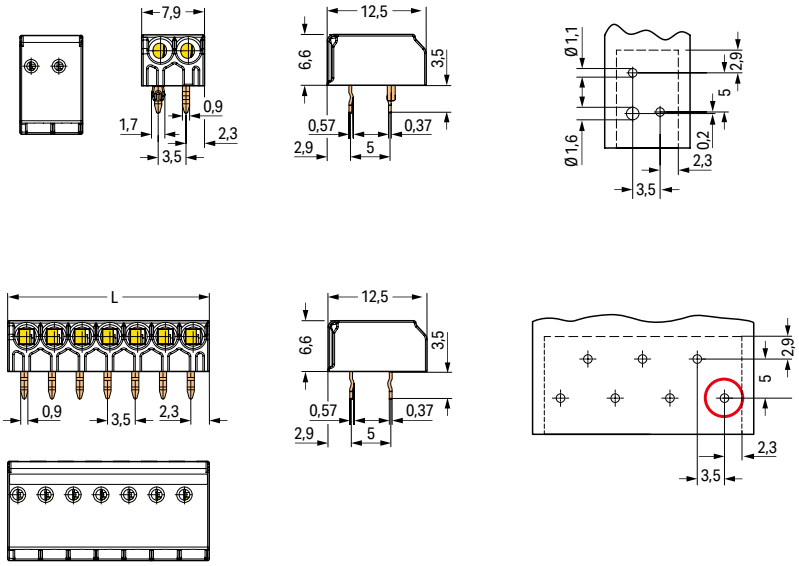
Solder pin length: 3.5 mm

1

Inserting a conductor via push-in termination.

Removing a conductor via 1.0 mm Ø disconnection tool (206-841).

Pole No.	Item No.	PU
2	744-392	1500
3	744-303	1000
4	744-304	800
6	744-306	500
7	744-307	300
8	744-308	300
10	744-310	200

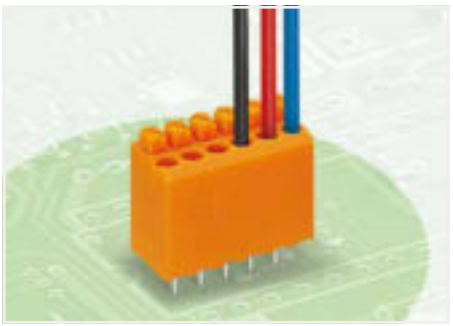


Two-pole version with additional anti-rotating pin
For 3 poles and more, L = (pole no. x pin spacing) + 0.9 mm
First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

PCB terminal block ▸ 735 Series
PUSH WIRE® ▸ Actuation type: Push-button ▸ 1.5 mm²

1



- Compact PCB terminal blocks with push-buttons and PUSH WIRE® connection
- Top-of-unit, push-button actuation and conductor termination save space on the PCB
- Push-in termination of solid conductors
- Terminal blocks can be arranged side-by-side without loss of poles.

Electrical Data						
Pin spacing	3.81 mm / 0.15 inch			5 mm / 0.197 inch		
Color	orange			gray		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.5 mm
Solder pin dimensions	0.4 x 0.9 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

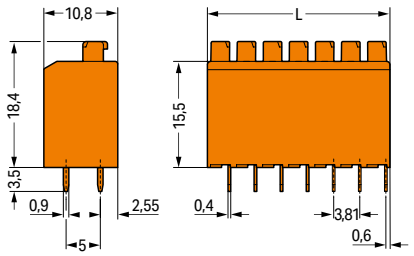
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

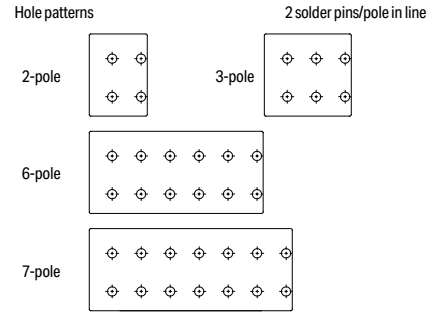
PCB terminal block ▸ 735 Series
PUSH WIRE® ▸ Actuation type: Push-button ▸ 1.5 mm²

Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

Pole No.	Item No.	PU (SPU)
2	735-122	660 (165)
3	735-123	440 (110)
6	735-126	220 (55)
7	735-127	180 (45)

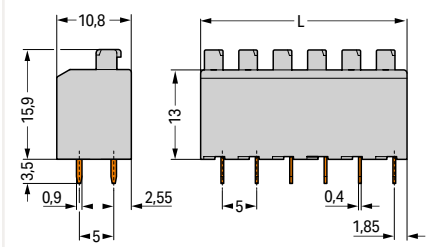


L (2-pole): 7.62 mm, L (3-pole): 11.43 mm
L (6-pole): 22.86 mm, L (7-pole): 26.67 mm

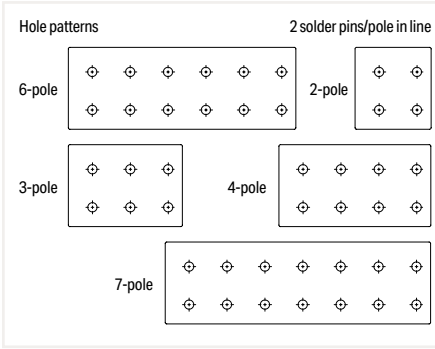


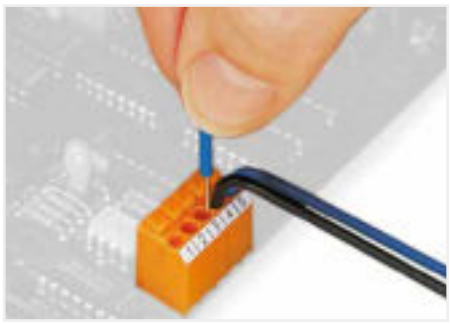
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

Pole No.	Item No.	PU (SPU)
2	735-302	500 (125)
3	735-303	320 (80)
4	735-304	240 (60)
6	735-306	160 (40)
7	735-307	140 (35)

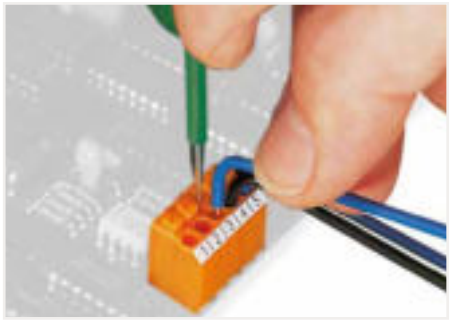


L (2-pole): 10 mm, L (3-pole): 15 mm
L (4-pole): 20 mm, L (6-pole): 30 mm
L (7-pole): 35 mm





Insert solid conductors via push-in termination.



Removing a conductor via push-button.

Terminal blocks can be arranged side-by-side without loss of poles.

Testing via 1 mm Ø test pin.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Direct marking

PCB terminal block ▸ 735 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 1 x pin spacing ▸ 1.5 mm²

1

- Compact PCB terminal blocks with push-buttons and PUSH WIRE® connection
- Top-of-unit, push-button actuation and conductor termination save space on the PCB
- Push-in termination of solid conductors
- Terminal blocks can be arranged side-by-side without loss of poles.

Electrical Data

Pin spacing	3.81 mm / 0.15 inch			5 mm / 0.197 inch			5 mm / 0.197 inch		
Color	orange			gray			gray		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	320 V	630 V	1000 V	320 V	320 V	630 V
Rated impulse voltage	6 kV	6 kV	6 kV	4 kV	8 kV	8 kV	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A	10 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Connection Data

Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 1 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.5 mm
Solder pin dimensions	0.4 x 0.9 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

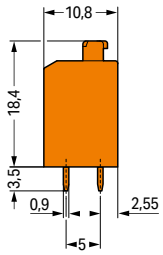
PCB terminal block ▸ 735 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 1 x pin spacing ▸ 1.5 mm²

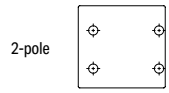
Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

735-123/001-000

Color	Pole No.	Item No.	PU (SPU)
orange	2	735-123/001-000	440 (110)

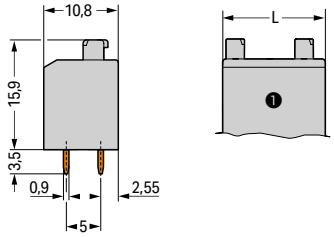


Hole pattern — 2 solder pins/pole in line



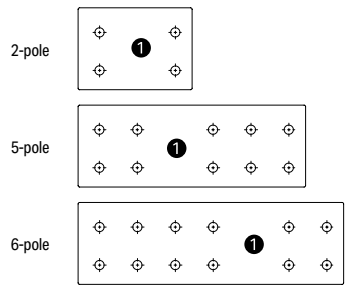
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

Pole No.	Item No.	PU (SPU)
2	735-303/001-000	320 (80)
5	735-306/003-000	160 (40)
6	735-307/001-000	140 (35)

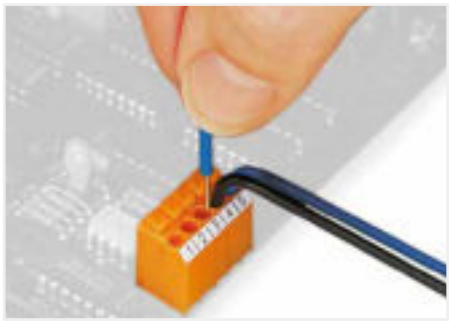


L (2-pole): 15 mm
L (5-pole): 30 mm
L (6-pole): 35 mm

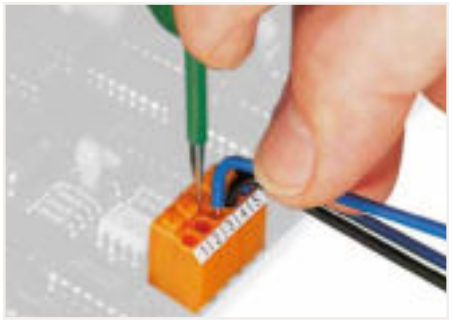
Hole patterns — 2 solder pins/pole in line



(1) Spacer: 1 x pin spacing



Insert solid conductors via push-in termination.



Removing a conductor via push-button.

Terminal blocks can be arranged side-by-side without loss of poles.

Testing via 1 mm Ø test pin.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Direct marking

PCB terminal block ▸ 735 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 2 x pin spacing ▸ 1.5 mm²

1

- Compact PCB terminal blocks with push-buttons and PUSH WIRE® connection
- Top-of-unit, push-button actuation and conductor termination save space on the PCB
- Push-in termination of solid conductors
- Terminal blocks can be arranged side-by-side without loss of poles.

Electrical Data						
Pin spacing	3.81 mm / 0.15 inch			5 mm / 0.197 inch		
Color	orange			gray		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.5 mm
Solder pin dimensions	0.4 x 0.9 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

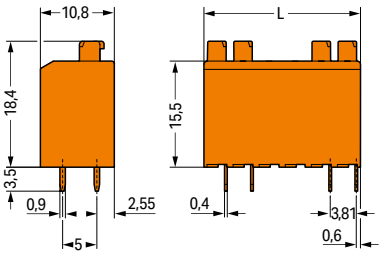
Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 735 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 2 x pin spacing ▸ 1.5 mm²

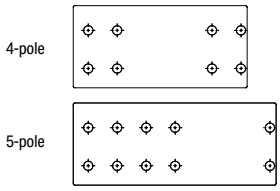
Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

Pole No.	Item No.	PU (SPU)
4	735-126/001-000	220 (55)
5	735-127/001-000	180 (45)



L (4-pole): 22.86 mm
L (5-pole): 26.67 mm

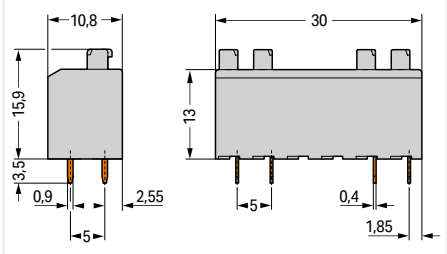
Hole patterns — 2 solder pins/pole in line



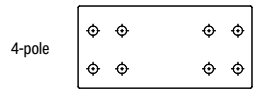
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

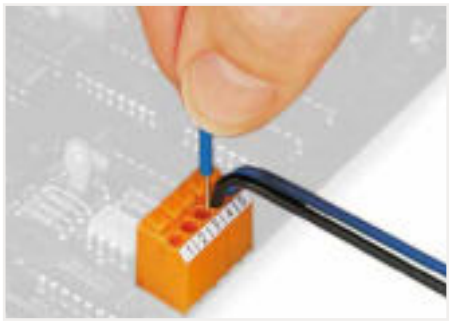
735-306/001-000

Color	Pole No.	Item No.	PU (SPU)
gray	4	735-306/001-000	160 (40)

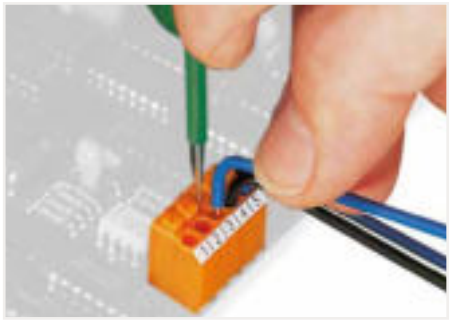


Hole pattern — 2 solder pins/pole in line





Insert solid conductors via push-in termination.



Removing a conductor via push-button.

Terminal blocks can be arranged side-by-side without loss of poles.

Testing via 1 mm Ø test pin.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Direct marking

PCB terminal block ▸ 735 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 3 x pin spacing ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1

- Compact PCB terminal blocks with push-buttons and PUSH WIRE® connection
- Top-of-unit, push-button actuation and conductor termination save space on the PCB
- Push-in termination of solid conductors
- Terminal blocks can be arranged side-by-side without loss of poles.

Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	90 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.5 mm
Solder pin dimensions	0.4 x 0.9 mm
Drilled hole diameter with tolerance	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

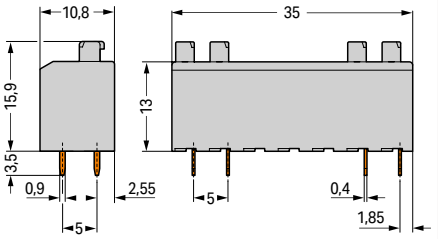
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

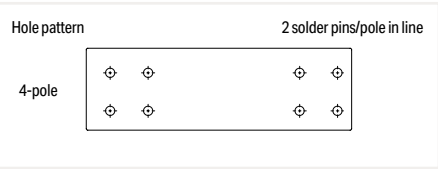
PCB terminal block ▸ 735 Series

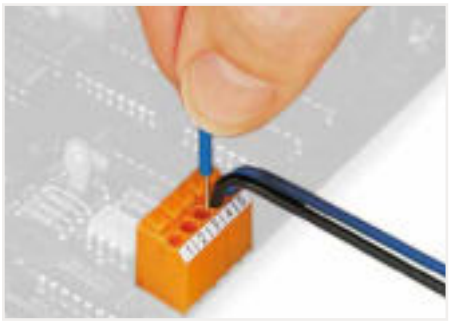
PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 3 x pin spacing ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

735-307/002-000

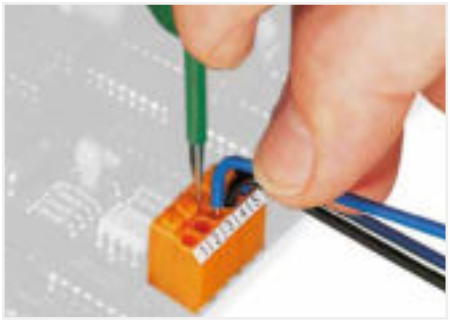
Color	Pole No.	Item No.	PU (SPU)
gray	4	735-307/002-000	140 (35)







Insert solid conductors via push-in termination.



Removing a conductor via push-button.

Terminal blocks can be arranged side-by-side without loss of poles.

Testing via 1 mm Ø test pin.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

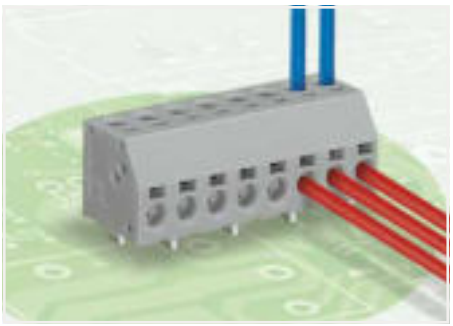
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Direct marking

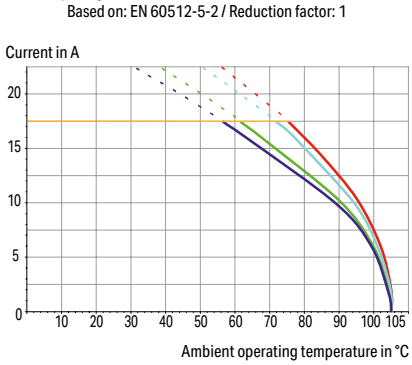
2-conductor PCB terminal block ▸ 253 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated PUSH WIRE® termination
- Double-conductor connection provides top-entry (vertical) and/or side-entry (horizontal) wiring
- Push-in termination of solid conductors
- Double entries for power supply and potential distribution



Electrical Data			
Pin spacing	5 mm / 0.197 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	8 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	8 A

Connection Data	
Connection type (1)	PUSH WIRE® connection
Connection technology	PUSH WIRE®
Number of connection points (connection type)	1
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Note (strip length)	7 … 8 mm / 0.28 … 0.31 inch (for wiring on both sides)
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Connection type 2	PUSH WIRE® connection
Connection technology 2	PUSH WIRE®
Number of connection points	1
Strip length 2	8.5 … 9.5 mm / 0.33 … 0.37 inch
Note (strip length) 2	7 … 8 mm / 0.28 … 0.31 inch (for wiring on both sides)
Conductor connection direction to PCB 2	90 °
Solid conductor 2	0.5 … 1.5 mm² / 20 … 16 AWG

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin length	3.6 mm
Solder pin dimensions	0.5 x 0.8 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Marking Page 865
Tool Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

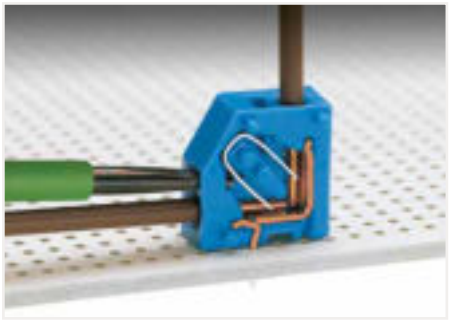
2-conductor PCB terminal block ▸ 253 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

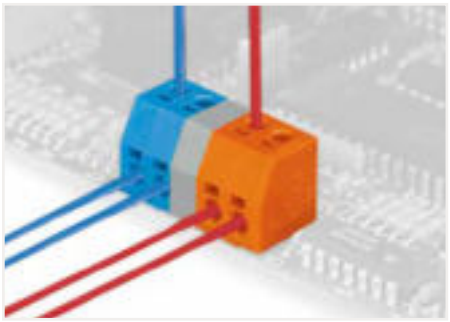
253-112

Inserting a conductor via push-in termination.

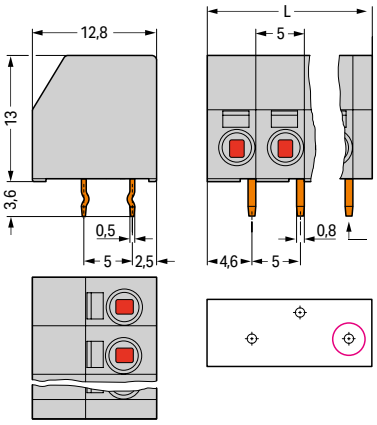
Pole No.	Item No.	PU (SPU)
2	253-102	400 (100)
3	253-103	280 (70)
4	253-104	220 (55)
5	253-105	160 (40)
6	253-106	140 (35)
7	253-107	120 (30)
8	253-108	100 (25)
9	253-109	100 (25)
10	253-110	80 (20)
11	253-111	80 (20)
12	253-112	60 (15)
13	253-113	60 (15)
14	253-114	60 (15)
15	253-115	60 (15)
16	253-116	40 (10)



Removing a conductor via 2.5 mm screwdriver.



Mixed-color terminal strips (with or without spacer) are available upon request.



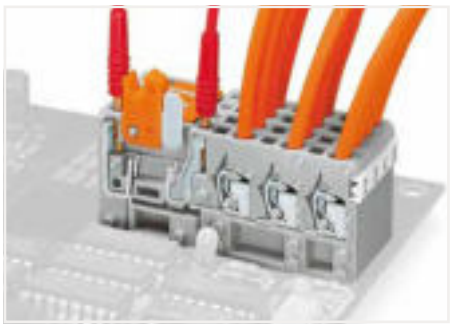
L = (pole no. x pin spacing) + 2 mm
First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

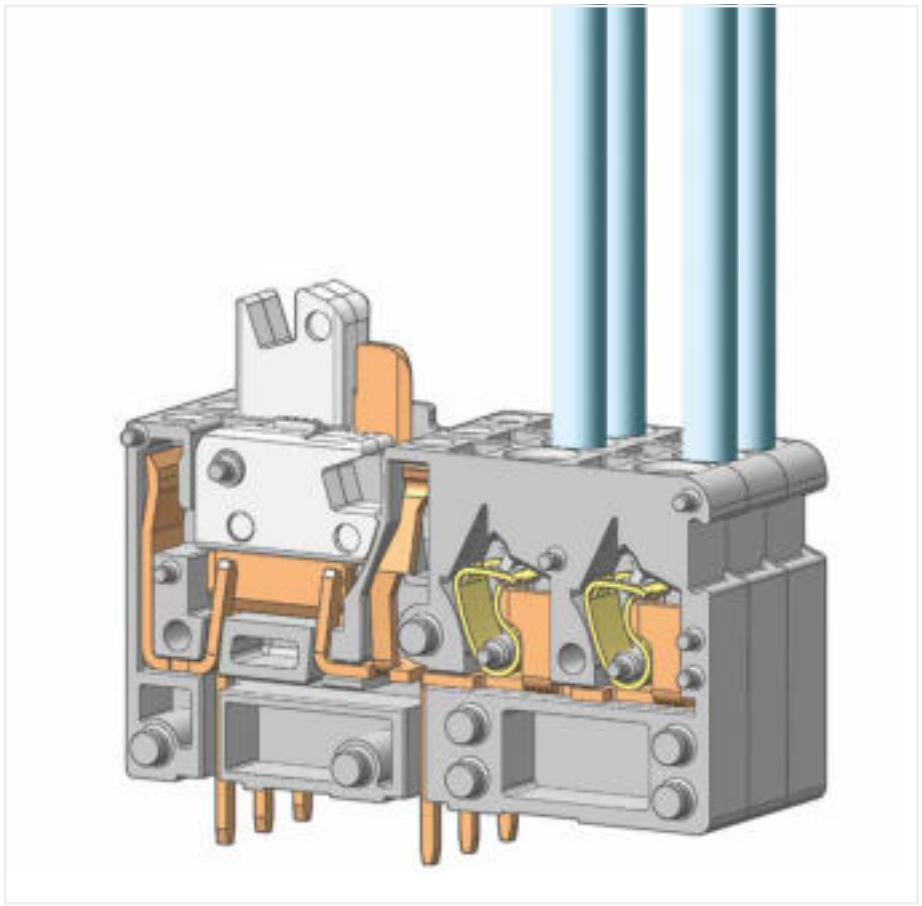
742 Series
Description and Installation

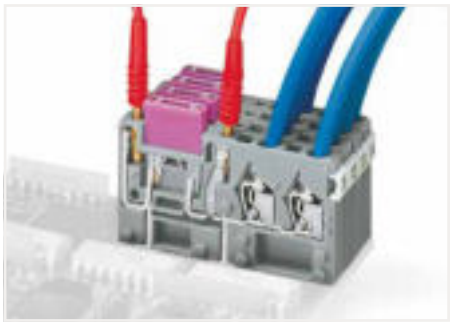


Testing all PCB disconnect terminal blocks via 2 mm or 2.3 mm Ø test plugs.

Opening a knife disconnect.

Distributing potentials via 3-conductor terminal blocks.

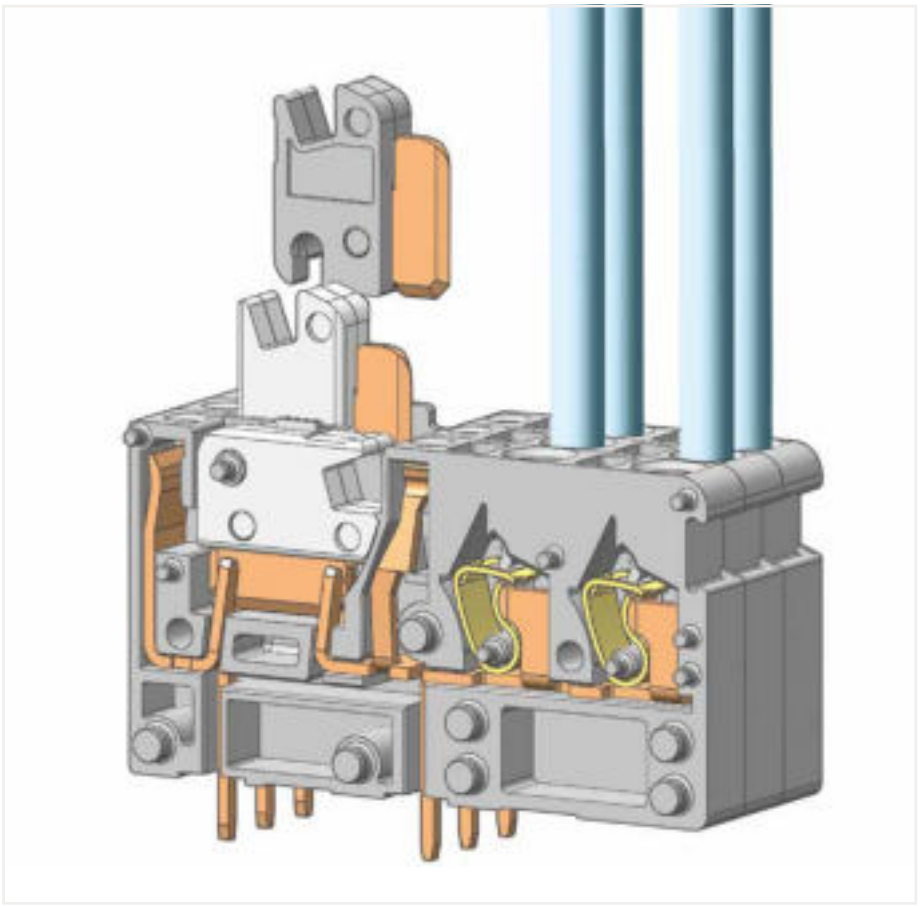




Testing all PCB fuse terminal blocks via 2 mm or 2.3 mm Ø test plugs.

742 Series
Description and Installation

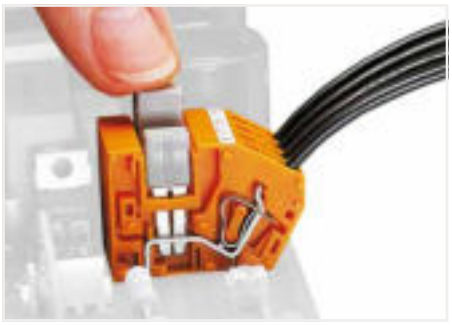
Testing all PCB terminal blocks via 2 mm or 2.3 mm Ø test plugs.



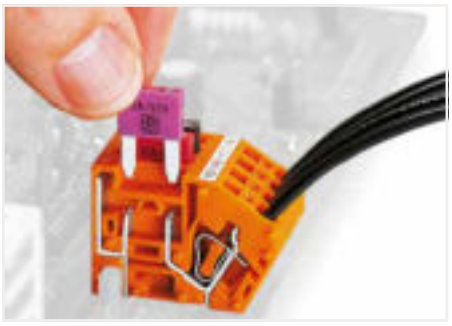
Disconnect terminal blocks with removable knife disconnect are available upon request.

Mixed-color terminal strips are available upon request.

Mixed-color knife disconnect/test terminal strips are available upon request.



Commoning with adjacent jumpers – push jumpers down until fully inserted.



Inserting a fuse.

Custom PCB terminal strips are available upon request.

Stackable PCB terminal block ▸ 742 Series

Disconnect/test terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1

- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® connection
- Power circuit disconnection via knife disconnect, e.g., for regular testing and measuring
- Test sockets on both sides of knife disconnect for 2.0 mm or 2.3 mm Ø test plugs
- 2- and 3-conductor PCB terminal blocks for distributing potentials independently of PCB
- Versions with removable knife disconnects available upon request

Electrical Data

Pin spacing	5 mm / 0.197 inch			5 mm / 0.197 inch		
Number of connection points	1			2;3		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

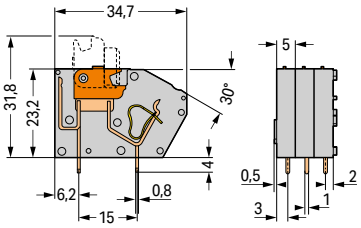
Stackable PCB terminal block ▸ 742 Series

Disconnect/test terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

Conductor connection direction to PCB: 60 ° ▸ Number of connection points: 1 ▸ Strip length: 8 … 9 mm / 0.31 … 0.35 inch

742-101

Color	Item No.	PU (SPU)
gray	742-101	384 (96)



Item-Specific Accessories

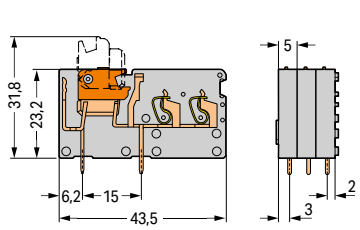
End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-100	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 2 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch

742-151

Color	Item No.	PU
gray	742-151	200

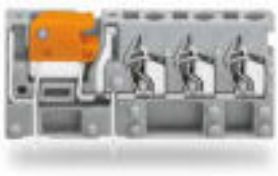


Item-Specific Accessories

End plate; Width: 1.5 mm; snap-on type

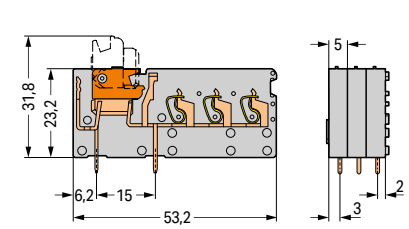
Color	Item No.	PU (SPU)
gray	742-150	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 3 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch



742-153

Color	Item No.	PU
gray	742-153	100



Item-Specific Accessories

End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-152	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Stackable PCB terminal block ▸ 742 Series

Disconnect/test terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

1

- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® connection
- Power circuit disconnection via knife disconnect, e.g., for regular testing and measuring
- Test sockets on both sides of knife disconnect for 2.0 mm or 2.3 mm Ø test plugs
- 2- and 3-conductor PCB terminal blocks for distributing potentials independently of PCB
- Versions with removable knife disconnects available upon request

Electrical Data						
Pin spacing	**5.08 mm / 0.2 inch**			**5.08 mm / 0.2 inch**		
Number of connection points	**1**			**2;3**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

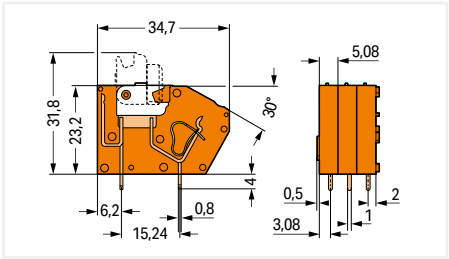
Stackable PCB terminal block ▸ 742 Series

Disconnect/test terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

Conductor connection direction to PCB: 60 ° ▸ Number of connection points: 1 ▸ Strip length: 8 … 9 mm / 0.31 … 0.35 inch

742-106

Color	Item No.	PU (SPU)
orange	742-106	384 (96)



Item-Specific Accessories

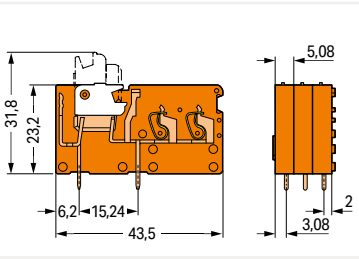
End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-600	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 2 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch

742-156

Color	Item No.	PU
orange	742-156	200



Item-Specific Accessories

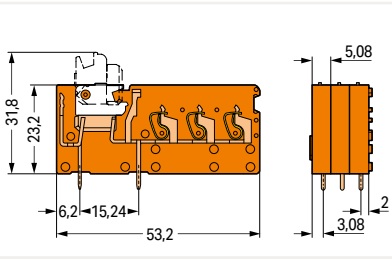
End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-650	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 3 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch

742-158

Color	Item No.	PU
orange	742-158	100



Item-Specific Accessories

End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-651	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Stackable PCB terminal block ▸ 742 Series

Commoning option ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch

1

- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® connection
- Adjacent jumpers for multiplying and distributing potentials
- Disconnect and fuse PCB terminal blocks can be combined to form complex function assemblies
- Test socket for 2.0 mm and 2.3 mm Ø test plugs

Electrical Data

Pin spacing	5 mm / 0.197 inch			5 mm / 0.197 inch		
Number of connection points	1			2		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

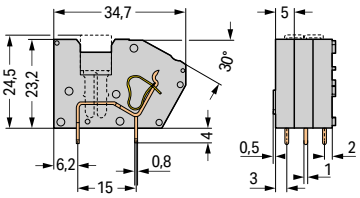
Stackable PCB terminal block ▸ 742 Series

Commoning option ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch

Conductor connection direction to PCB: 60 ° ▸ Number of connection points: 1 ▸ Strip length: 8 … 9 mm / 0.31 … 0.35 inch

742-121

Color	Item No.	PU
gray	742-121	300
blue	742-124	300
green-yellow	742-128	300



Item-Specific Accessories

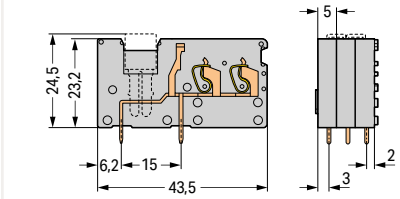
End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-100	300 (100)
blue	742-400	300 (100)
green-yellow	742-800	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 2 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch

742-171

Color	Item No.	PU
gray	742-171	200
blue	742-174	200
green-yellow	742-178	200



Item-Specific Accessories

End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-150	300 (100)
blue	742-450	300 (100)
green-yellow	742-850	300 (100)

Accessories; for all products on this page

Adjacent jumper; Width: 5 mm; Rated current: 24 A

Color	Item No.	PU (SPU)
gray	280-402	200 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Stackable PCB terminal block ▸ 742 Series

Commoning option ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

1

- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® connection
- Adjacent jumpers for multiplying and distributing potentials
- Disconnect and fuse PCB terminal blocks can be combined to form complex function assemblies
- Test socket for 2.0 mm and 2.3 mm Ø test plugs

Electrical Data

Pin spacing	5.08 mm / 0.2 inch			5.08 mm / 0.2 inch		
Number of connection points	1			2		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

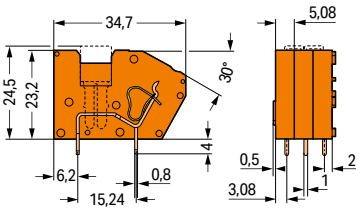
Stackable PCB terminal block ▸ 742 Series

Commoning option ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

Conductor connection direction to PCB: 60 ° ▸ Number of connection points: 1 ▸ Strip length: 8 … 9 mm / 0.31 … 0.35 inch

742-126

Color	Item No.	PU
orange	742-126	300



Item-Specific Accessories

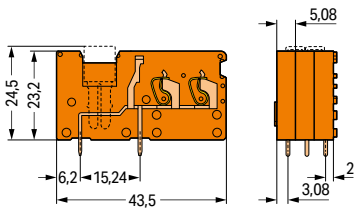
End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-600	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 2 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch

742-176

Color	Item No.	PU
orange	742-176	200



Item-Specific Accessories

End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-650	300 (100)

Accessories; for all products on this page

Adjacent jumper; Width: 5 mm; Rated current: 24 A

Color	Item No.	PU (SPU)
gray	280-402	200 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Stackable PCB terminal block ▸ 742 Series

Fuse terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1

- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® connection
- Quick, easy replacement of mini-automotive blade-style fuses in the event of a fault
- Test sockets on both sides of fuse for 2.0 mm or 2.3 mm Ø test plugs
- Observe protection against direct contact for voltages of 42 V and higher!
- 2- and 3-conductor PCB terminal blocks for distributing potentials independently of PCB

Electrical Data						
Pin spacing	5 mm / 0.197 inch			5 mm / 0.197 inch		
Number of connection points	1			2;3		
Individual arrangement						
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	15 A	15 A	15 A	15 A	15 A	15 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A
Block arrangement						
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

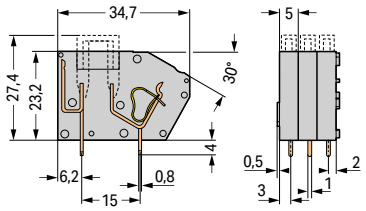
Stackable PCB terminal block ▸ 742 Series

Fuse terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

Conductor connection direction to PCB: 60 ° ▸ Number of connection points: 1 ▸ Strip length: 8 … 9 mm / 0.31 … 0.35 inch

742-111

Color	Item No.	PU
gray	742-111	300



Item-Specific Accessories

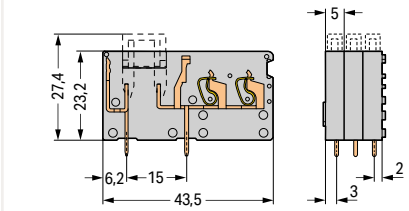
End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-100	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 2 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch

742-161

Color	Item No.	PU
gray	742-161	200



Item-Specific Accessories

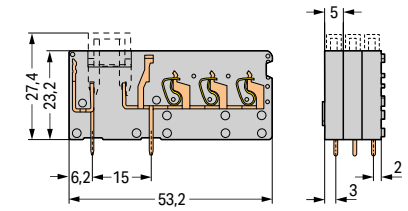
End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-150	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 3 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch

742-163

Color	Item No.	PU
gray	742-163	100



Item-Specific Accessories

End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-152	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Stackable PCB terminal block ▸ 742 Series

Fuse terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

1

- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® connection
- Quick, easy replacement of mini-automotive blade-style fuses in the event of a fault
- Test sockets on both sides of fuse for 2.0 mm or 2.3 mm Ø test plugs
- Observe protection against direct contact for voltages of 42 V and higher!
- 2- and 3-conductor PCB terminal blocks for distributing potentials independently of PCB

Electrical Data						
Pin spacing	5.08 mm / 0.2 inch			5.08 mm / 0.2 inch		
Number of connection points	1			2;3		
Individual arrangement						
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	15 A	15 A	15 A	15 A	15 A	15 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A
Block arrangement						
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 862
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

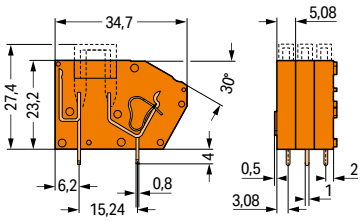
Stackable PCB terminal block ▸ 742 Series

Fuse terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Color: orange

Conductor connection direction to PCB: 60 ° ▸ Number of connection points: 1 ▸ Strip length: 8 … 9 mm / 0.31 … 0.35 inch

742-116

Color	Item No.	PU
orange	742-116	300



Item-Specific Accessories

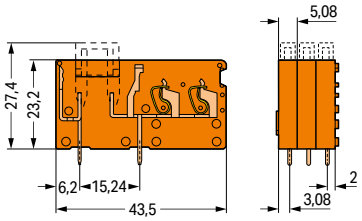
End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-600	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 2 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch

742-166

Color	Item No.	PU
orange	742-166	200



Item-Specific Accessories

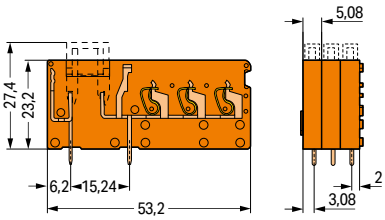
End plate; Width: 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-650	300 (100)

Conductor connection direction to PCB: 90 ° ▸ Number of connection points: 3 ▸ Strip length: 6 … 7 mm / 0.24 … 0.28 inch

742-168

Color	Item No.	PU
orange	742-168	100



Item-Specific Accessories

End plate; Width: 1.5 mm; snap-on type

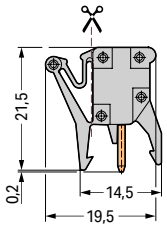
Color	Item No.	PU (SPU)
orange	742-651	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

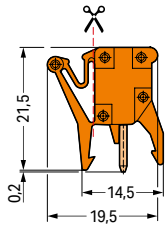
Test Plug Adapters for 255, 256 and 257 Series PCB Terminal Blocks

Test plug adapter; 1-pole; with socket for 2 mm and 2.3 mm Ø test plugs; modular; gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	249-110	100 (25)
7.5 mm / 0.295 inch	249-112	100 (25)
10 mm / 0.394 inch	249-114	100 (25)

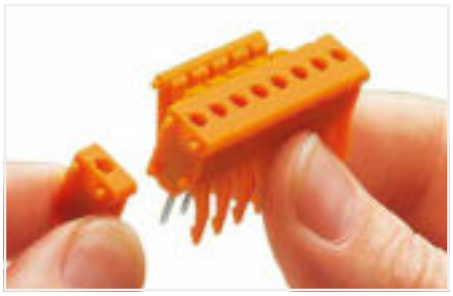
Test plug adapter; 1-pole; with socket for 2 mm and 2.3 mm Ø test plugs; modular; orange		
Pin spacing	Item No..	PU (SPU)
5.08 mm / 0.2 inch	249-111	100 (25)
7.62 mm / 0.3 inch	249-113	100 (25)
10.16 mm / 0.4 inch	249-115	100 (25)



Cutting mark for separating the retaining clip and its snap-in mounting foot



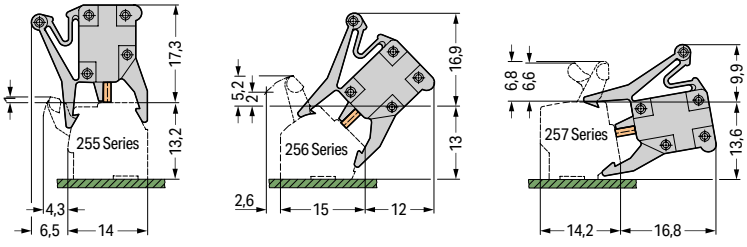
Cutting mark for separating the retaining clip and its snap-in mounting foot



Assembling a multipole test plug adapter.

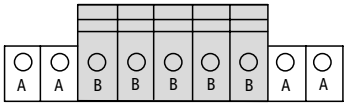
Inserting a 6-pole test plug adapter into a terminal strip.

Electrical Data			
	Pin Spacing: 5/5.08 mm (0.197/0.2 inch)	Pin Spacing: 7.5/7.62 mm (0.295/0.3 inch)	Pin Spacing: 10/10.16 mm (0.394/0.4 inch)
Ratings per	IEC/EN 60664-1	IEC/EN 60664-1	IEC/EN 60664-1
Overvoltage category	III	III	III
Pollution degree	2	2	2
Rated voltage	320 V	320 V	320 V
Rated impulse voltage	4 kV	4 kV	4 kV

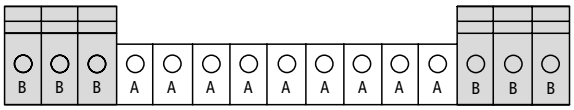


Testing a wired PCB terminal strip.

Adapters with snap-in mounting foot cut off assembled on both ends (7 to 9 poles)



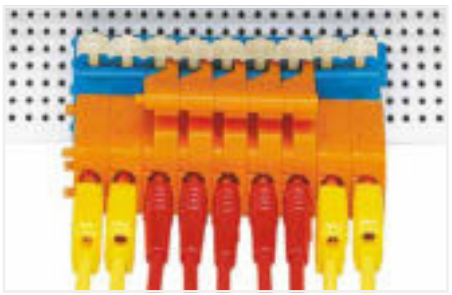
Adapters with snap-in mounting foot cut off in center position (10 to 15 poles)



For lengths longer than 7 poles, the snap-in mounting foot with retaining clip should be cut off (see example below).

Adapters A:
Snap-in mounting foot with retaining clip cut off

Adapters B:
Standard version



9-pole test plug adapter with cut-off snap-in mounting feet and retaining clips on both ends

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Comb-Style Jumper Bars for 745, 2706 and 2716 Series PCB Terminal Blocks

5 mm (0.197 inch) pin spacing; for 745 Series – 4 mm²		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-181	250 (50)
2-way	745-182	250 (50)
3-way	745-183	250 (50)
4-way	745-184	200 (50)
5-way	745-185	200 (50)
10-way	745-180	200 (50)

7.5 mm (0.295 inch) pin spacing; for 745 Series – 6 mm² and 2706 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-381	250 (50)
2-way	745-382	250 (50)
3-way	745-383	250 (50)
4-way	745-384	200 (50)
5-way	745-385	200 (50)
10-way	745-380	200 (50)

10 mm (0.394 inch) pin spacing; for 745 Series – 16 mm² and 2716 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-581	400 (50)
2-way	745-582	400 (50)
3-way	745-583	300 (50)
4-way	745-584	200 (50)
5-way	745-585	200 (50)

7.5 mm (0.295 inch) pin spacing; for 745 Series – 4 mm²		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-191	250 (50)
2-way	745-192	250 (50)
3-way	745-193	250 (50)
4-way	745-194	200 (50)
5-way	745-195	200 (50)
10-way	745-190	200 (50)

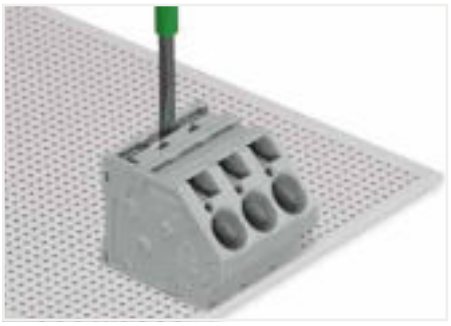
10 mm (0.394 inch) pin spacing; for 745 Series – 6 mm² and 2706 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-391	250 (50)
2-way	745-392	250 (50)
3-way	745-393	250 (50)
4-way	745-394	200 (50)
5-way	745-395	200 (50)
10-way	745-390	200 (50)

15 mm (0.591 inch) pin spacing; for 745 Series – 16 mm² and 2716 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-631	200 (50)
2-way	745-632	200 (50)
3-way	745-633	200 (50)
4-way	745-634	200 (50)
5-way	745-635	200 (50)

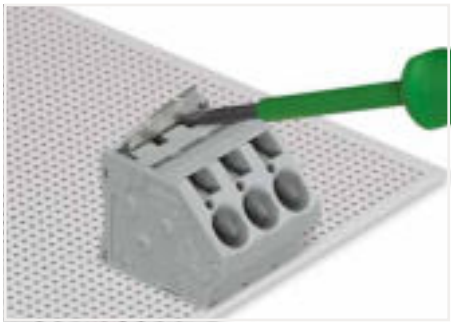
10 mm (0.394 inch) pin spacing; for 745 Series – 4 mm²		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-281	250 (50)
2-way	745-282	250 (50)
3-way	745-283	250 (50)
4-way	745-284	200 (50)
5-way	745-285	200 (50)
10-way	745-280	150 (50)

20 mm (0.787 inch) pin spacing; for 745 Series – 16 mm² and 2716 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-681	300 (50)
2-way	745-682	400 (50)
3-way	745-683	200 (50)
4-way	745-684	200 (50)
5-way	745-685	200 (50)

Inserting a comb-style jumper bar.



Push jumper bar down firmly using a screwdriver until it hits the backstop – 745 Series.

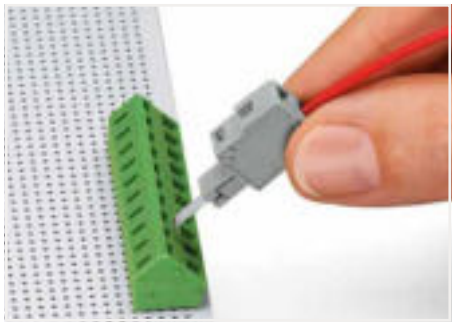


To remove the jumper bar, lift it up using a screwdriver – 745 Series.

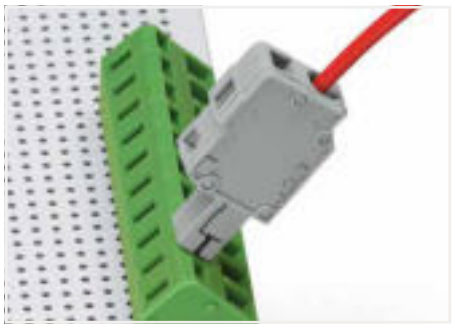
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Test Plug Modules; A-Type Contact; for 236, 736, 737 and 738 Series PCB Terminal Blocks
(Testing unwired terminal blocks)

1



Inserting a test plug module into the operating slot.



Unwired terminal strip with inserted test plug module

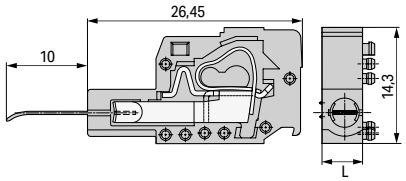
Contact type A:
Testing only when unwired.

Test plug module; with 10 mm contact lug; for 236 Series; snaps together; gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	231-127	100
7.5 mm / 0.295 inch	231-161	100

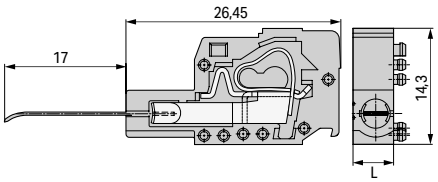
Test plug module; with 10 mm contact lug; for 236 Series; snaps together; orange		
Pin spacing	Item No.	PU (SPU)
5.08 mm / 0.2 inch	231-128	100
7.62 mm / 0.3 inch	231-125	100

Test plug module; with 17 mm contact lug; for 280, 736, 737, 738 and 780 Series; snaps together; gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	231-126	100

Test plug module; with 17 mm contact lug; for 280, 736, 737, 738 and 780 Series; snaps together; orange		
Pin spacing	Item No.	PU (SPU)
5.08 mm / 0.2 inch	231-426	100



L = Pin spacing



L = Pin spacing

Electrical Data		
Ratings per	IEC/EN 60664-1	
Overvoltage category	III	
Pollution degree	2	
Rated voltage (III/2)	250 V*	
Rated surge voltage (III / 2)	2,5 kV	
Rated current	0,5 A	

End plate	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Solid conductor	0,08 … 2,5 mm² / 28 … 12 AWG
Fine-stranded conductor	0,08 … 2,5 mm² / 28 … 12 AWG

Accessories; for all products on this page

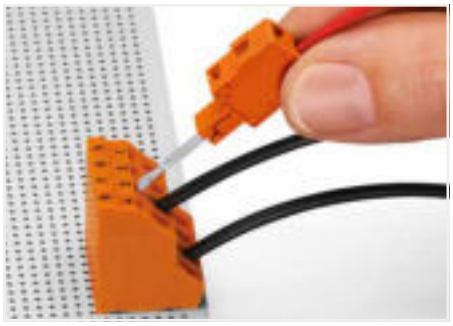
End plate		
Color	Item No.	PU (SPU)
gray	231-100	200

End plate		
Color	Item No.	PU (SPU)
orange	231-300	200

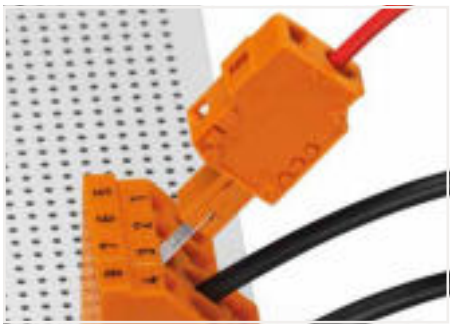
*(III / 2) ≙ Overvoltage category III / Pollution degree 2

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Test Plug Modules; B-Type Contact, for 736, 737 and 738 Series PCB Terminal Blocks
(Testing wired terminal blocks with 0.75 …1.5 mm² "f-st" or 0.5 mm² "sol." conductors)



Inserting a test plug module into the operating slot.



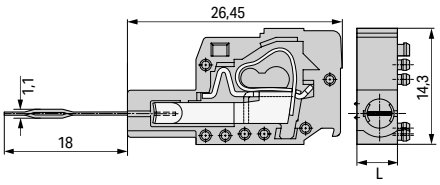
Wired terminal strip with inserted test plug module

Contact type B:
Testing only when wired –
0.75 … 1.5 mm² "f-st" or 0.5 mm² "sol."

Test plug module, with 18 mm contact lug, for 280, 736, 737, 738 and 780 Series, snaps together, gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	231-155	100

Test plug module, with 18 mm contact lug, for 736, 737 and 738 Series, snaps together, orange		
Pin spacing	Item No.	PU (SPU)
5.08 mm / 0.2 inch	231-455	100

Prüfsteckermodul; mit Kontaktzunge 18 mm; für Serien 736 und 737; anreihbar; grau		
Pin spacing	Item No.	PU (SPU)
7.5 mm / 0.295 inch	231-456	100



L = Pin spacing

Electrical Data		
Ratings per	IEC/EN 60664-1	
Overvoltage category	III	
Pollution degree	2	
Rated voltage (III/2)	250 V*	
Rated surge voltage (III / 2)	2,5 kV	
Rated current	0,5 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Solid conductor	0.08 … 2,5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2,5 mm² / 28 … 12 AWG

*(III / 2) ≙ Overvoltage category III / Pollution degree 2

Accessories; for all products on this page

End plate		
Color	Item No.	PU (SPU)
gray	231-100	200

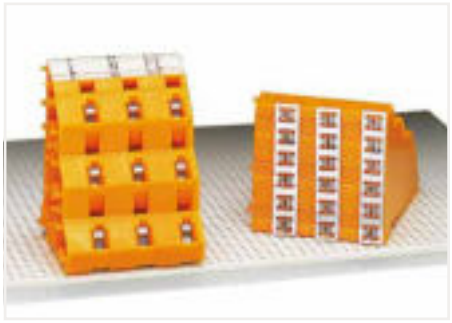
End plate		
Color	Item No.	PU (SPU)
orange	231-300	200

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Commoning Strips for PCB Terminal Strips 236, 255, 256, 257, 736, 737 and 738 Series

Horizontal commoning:
Connect adjacent potentials, e.g., as:
- "–" strip in connection modules for actuators with higher switching power
- Ground commoning strip for applications where the ground conductor shall not be looped over PCB tracks (max. short-time withstand current: 70 A/mm² for one second – observe the normative requirements of the end application!)

Note: Interruption of horizontal commoning reduces spacing to the adjacent solder pins.



Vertical commoning (only for 736 and 737 Series starting from 7.5 mm/0.295 inch pin spacing):
Connect the (in-line) solder pins of a PCB terminal block to one potential, e.g., as:
- 3-conductor supply and distribution PCB terminal block (up to 10 A)
- Intelligent circuit modifications without changing the track layout are also possible.

WAGO's commoning strips allow PCB terminal strips to be commoned to suit customer requirements. Due to the many combination possibilities, the commoning strips can only be fitted onto the solder pins at the factory. Please refer to the order form on pages 1.70 and 1.71.

Furthermore, these commoning strips allow terminal blocks of a same potential to be created.

Commoning strips are available for the following pin spacing:
- 5 mm, 5.08 mm (up to 20 poles)
- 7.5 mm, 7.62 mm (up to 16 poles)
- 10 mm, 10.16 mm (up to 12 poles)

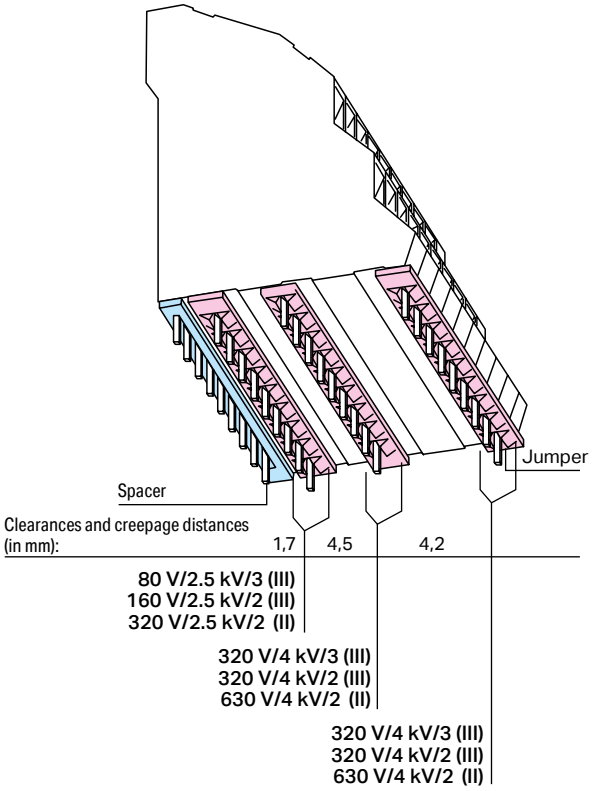
A spacer provides height compensation for the solder pins that are not commoned.

Technical Information on "Commoned PCB Terminal Strips"

Use of commoning strips must account for both the specific conditions of the planned application, as well as relevant standards for the normal operating conditions in which operational failures (can) occur.

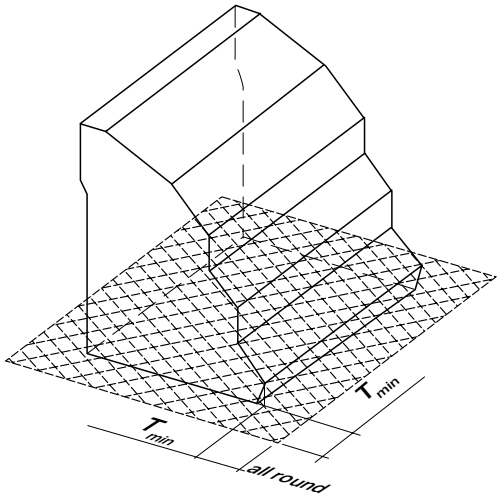
Horizontal commoning

(236, 255, 256, 257, 736, 737, 738 Series)



- Pin spacing combination is only possible with 5 mm, 5.08 mm, 10 mm and 10.16 mm.
- In-line or staggered arrangement of solder pins (736, 737, 738 Series).
- 236 Series: Versions with only one solder pin cannot be commoned.
- In case of different potentials within one level, ensure that at least one interim terminal block must remain uncommoned in order to maintain the necessary creepage distances and clearances (see also the ordering example).

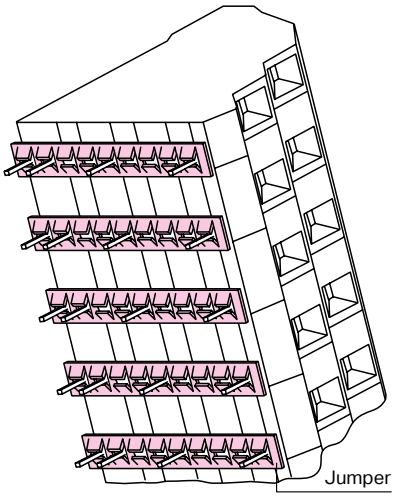
Distances to adjacent potentials

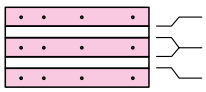


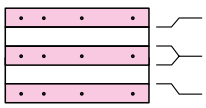
Recommendation: T_{min} = 5 mm

Please note that the distance between the commoning strips and adjacent potentials must comply with requirements for the end application as specified in the relevant standard.

Vertical commoning (only possible with 736/737 Series Multilevel PCB Terminal Blocks)



Pin spacing: 7.5 mm, 7.62 mm	Creepage distance (in mm):	Clearance (in mm):	Voltage:
	1,7 1,7	1,7 1,7	80 V/2.5 kV/3 (III) 160 V/2.5 kV/2 (III) 320 V/2.5 kV/2 (II)

Pin spacing: 10 mm, 10.16 mm	Creepage distance (in mm):	Clearance (in mm):	Voltage:
	4,2 4,2	4,2 4,2	320 V/4 kV/3 (III) 320 V/4 kV/2 (III) 630 V/4 kV/2 (II)

- Not possible with 5 mm and 5.08 mm pin spacing
- Solder pins always arranged in line

Order Form "Commoned PCB Terminal Strips"

236, 255, 256, 257, 736
737, 738 Series

Company:

Drawing No.:

WAGO Item No.:

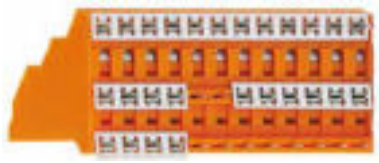
Change				
	5			
	4			
	3			
	2			
	1			
Original		Change Note	Date	Name

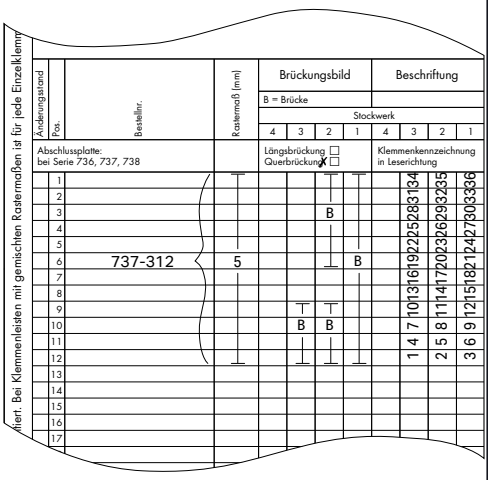
Page of

Release Note:

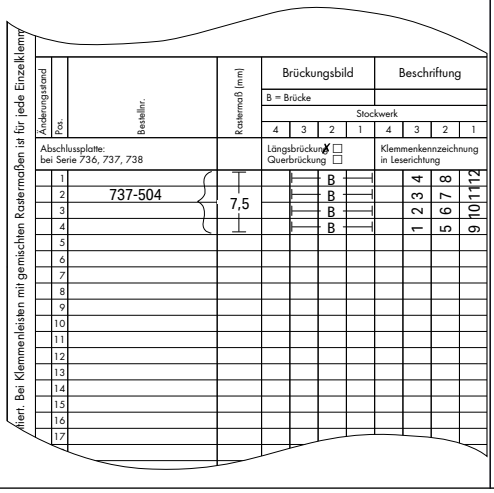
1

Ordering example: **Horizontal commoning**



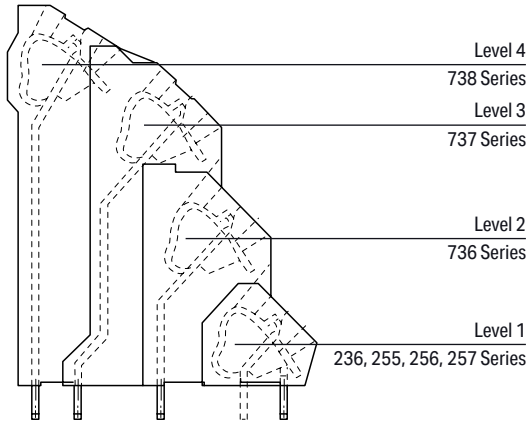


Ordering example: **Vertical commoning**



Spacers are always installed at the factory. For mixed-pin-spacing terminal strips, enter the pin spacing, not the item number of each individual terminal block.

Terminal strip design



Item Changed	Item Position	Item No.	Pin Spacing (mm)	Commoning B = Jumper Level 4	Commoning Level 3	Commoning Level 2	Commoning Level 1	Marking Level 4	Marking Level 3	Marking Level 2	Marking Level 1
		End plate: for 736, 737, 738 Series		Vertical commoning ☐ Horizontal commoning ☐				Terminal block marking in read direction			
	1										
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
	10										
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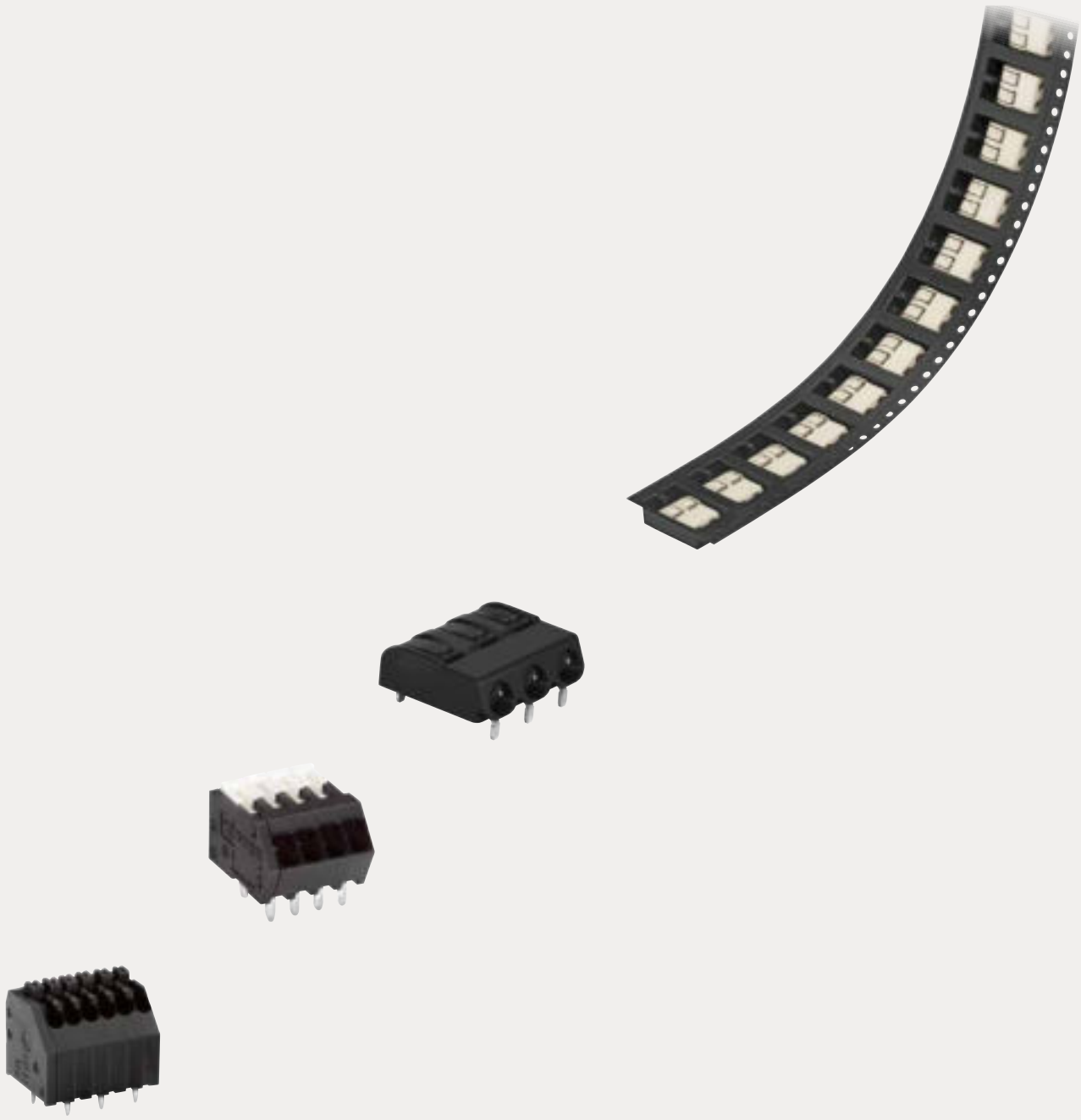
	28										
	29										
	30										
	31										
	32										
	33										
End plate: for 236, 255, 256, 257 Series											



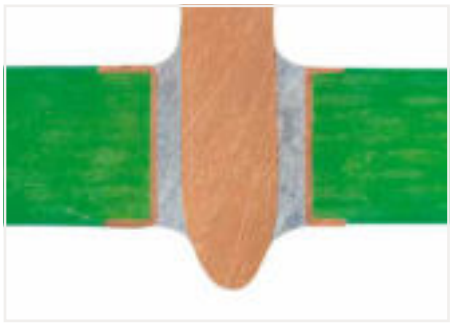
WAGO THR PCB Terminal Blocks

WAGO THR PCB Terminal Blocks

		Nominal Cross-Section	Series	Page
	THR PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	0.75 mm² 1.5 mm²	2060 2061	270 276
	THR PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	1.5; 2.5 mm²	250	286
	THR PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	1.5 mm²	805	290
	THR PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	236	292
	THR PCB Terminal Blocks ▸ Actuation type: Confirmation slide switch ▸ CAGE CLAMP®	2.5 mm²	218	294
	Accessories for THR PCB Terminal Blocks Accessories and Tools			298 861

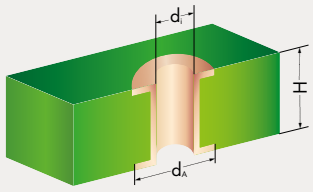
THR (Through-Hole Reflow) Soldering Process

By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.



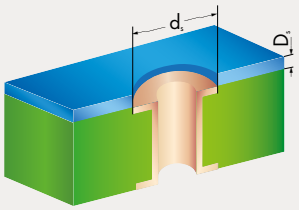
Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.

1



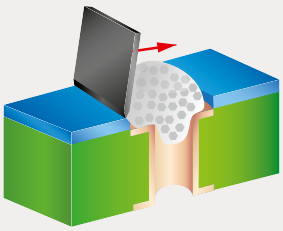
Metal-plated PCB bore hole

2



SMD positioning pattern

3



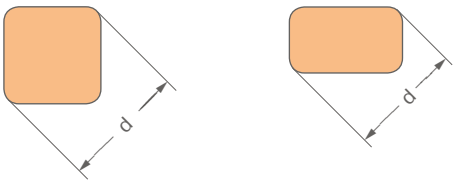
Solder paste application

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1.1^{+0.1}$	1.9	< 2	1.8	150	0.9	2.8
231 (1 x 1 mm)	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
231 (1.2 x 1.2 mm)	$1.7^{+0.1}$	2.8	< 2	2.7	150	1.5	2.4
236	$1.1^{+0.1}$	2.2	< 2	2.1	150	0.9	3.6
250	$1.1^{+0.1}$	2.0	< 2	1.9	150	0.9	2.4
713	$1.0^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
733	$1.2^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
734	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
2060	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	2.4
2061	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	1.5 / 2.4
2086	$1.0^{+0.1}$	2.0	< 2	1.9	150	0.85	1.5 / 2.4

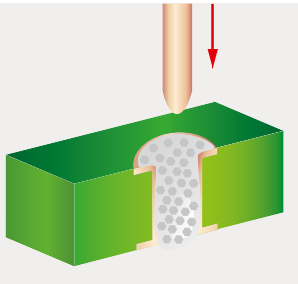
d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Solder pin form

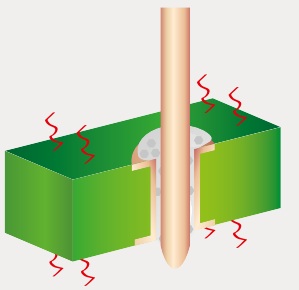


4



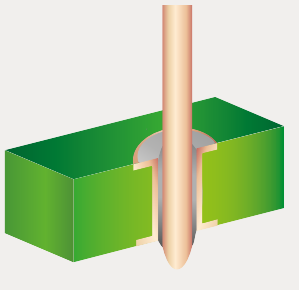
Component assembly, automatic/by hand

5



Reflow soldering process

6

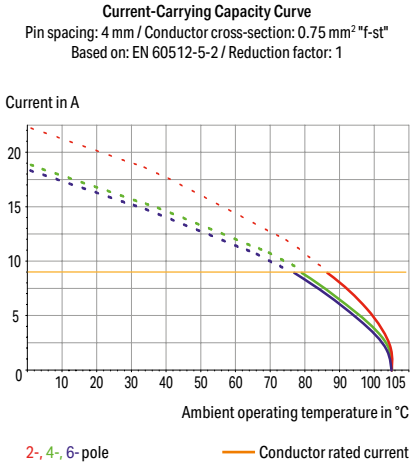


THR soldering joint

THR PCB terminal block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 4 mm / 0.157 inch ▸ Solder pin length: 2.4 mm

- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering



Electrical Data			
Pin spacing	**4 mm / 0.157 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	9 A	9 A	9 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.34 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.75 mm
Plated through-hole diameter (THR)	1.5 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
150 µm material thickness
Stencil hole diameter identical to metal-plated PCB hole outer diameter

THR soldering	Page 268
Ferrule	Page 879
Tool	Page 299

See technical section for further information

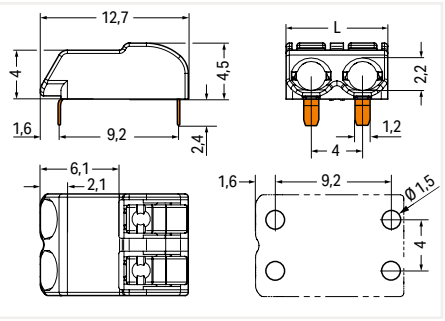
For approvals and corresponding ratings, visit www.wago.com

THR PCB terminal block ▸ 2060 Series

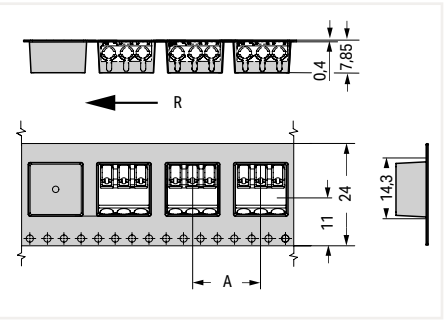
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 4 mm / 0.157 inch ▸ Solder pin length: 2.4 mm

Color: white

Pole No.	Item No.	PU (SPU)
1	2060-1451/998-404	10800 (1200)



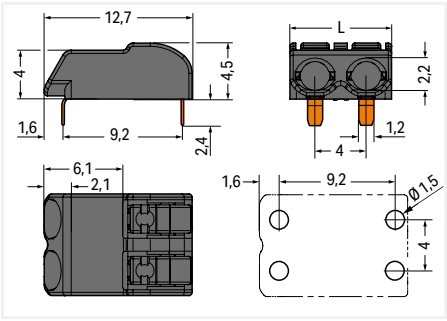
L = (pole no. x pin spacing) – 0.1 mm



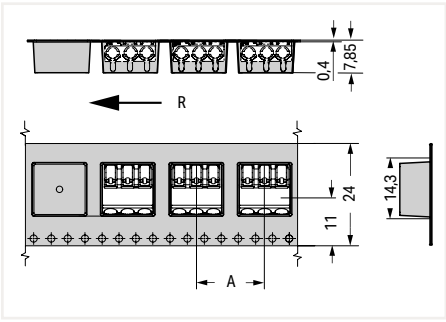
R = feed direction
A = (pole no. x pin spacing) + 4 mm

Color: black

Pole No.	Item No.	PU (SPU)
1	2060-1471/998-404	10800 (1200)



L = (pole no. x pin spacing) – 0.1 mm



R = feed direction
A = (pole no. x pin spacing) + 4 mm

Insert solid conductors via push-in termination.

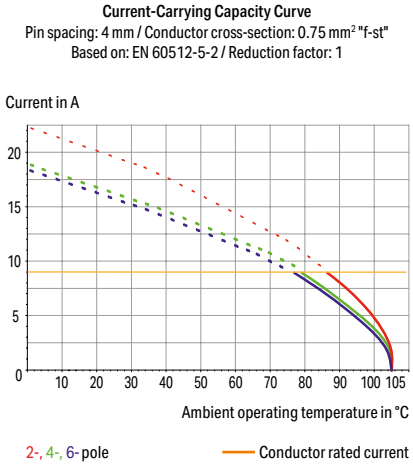
Insert/remove fine-stranded conductors by lightly pressing on push-button, e.g., via optional operating tool (206-860).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB terminal block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 4 mm / 0.157 inch ▸ Solder pin length: 2.4 mm

- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering



Electrical Data			
Pin spacing	**4 mm / 0.157 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	9 A	9 A	9 A
Approbations per	UL 1977		
Rated voltage	320 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.34 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.75 mm
Plated through-hole diameter (THR)	1.5 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
150 µm material thickness
Stencil hole diameter identical to metal-plated PCB hole outer diameter

THR soldering	Page 268
Ferrule	Page 879
Tool	Page 299

See technical section for further information

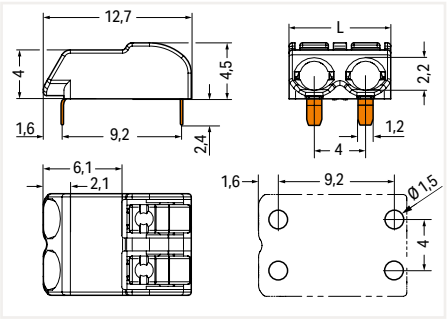
For approvals and corresponding ratings, visit www.wago.com

THR PCB terminal block ▸ 2060 Series

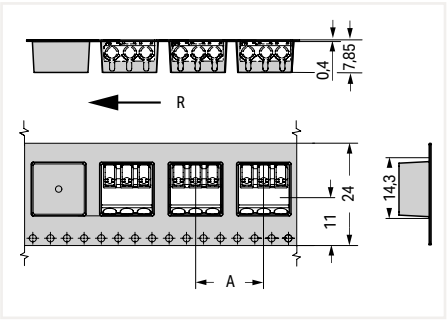
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 4 mm / 0.157 inch ▸ Solder pin length: 2.4 mm

Color: white

Pole No.	Item No.	PU (SPU)
2	2060-1452/998-404	6750 (750)
3	2060-1453/998-404	4950 (550)



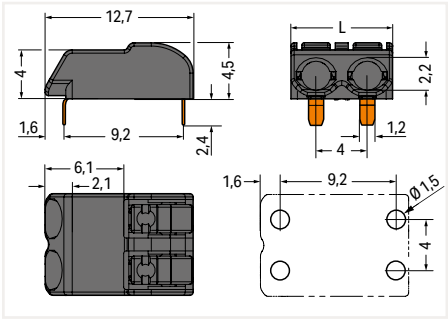
L = (pole no. x pin spacing) – 0.1 mm



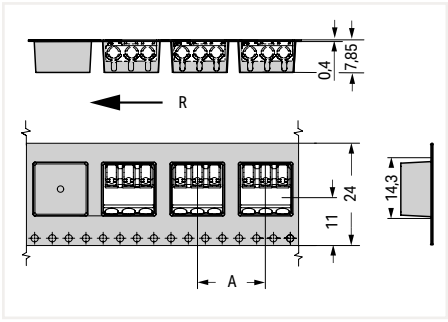
R = feed direction
A = (pole no. x pin spacing) + 4 mm

Color: black

Pole No.	Item No.	PU (SPU)
2	2060-1472/998-404	6750 (750)
3	2060-1473/998-404	4950 (550)



L = (pole no. x pin spacing) – 0.1 mm



R = feed direction
A = (pole no. x pin spacing) + 4 mm

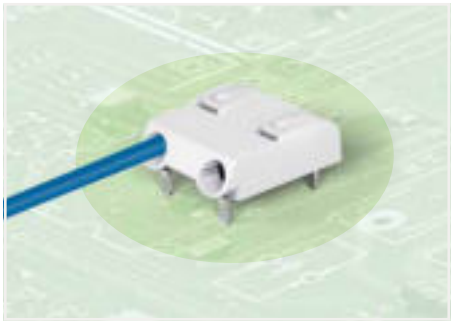
Insert solid conductors via push-in termination.

Insert/remove fine-stranded conductors by lightly pressing on push-button, e.g., via optional operating tool (206-860).

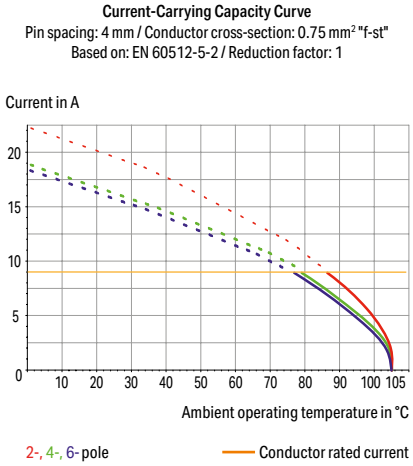
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB terminal block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 8 mm / 0.314 inch ▸ Solder pin length: 2.4 mm



- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering



Electrical Data			
Pin spacing	**8 mm / 0.314 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	400 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	9 A	9 A	9 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.34 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.75 mm
Plated through-hole diameter (THR)	1.5 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
150 µm material thickness
Stencil hole diameter identical to metal-plated PCB hole outer diameter

THR soldering	Page 268
Ferrule	Page 879
Tool	Page 299

See technical section for further information

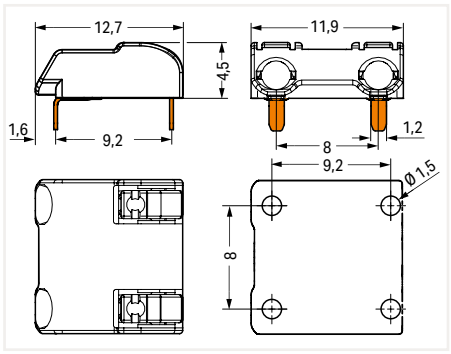
For approvals and corresponding ratings, visit www.wago.com

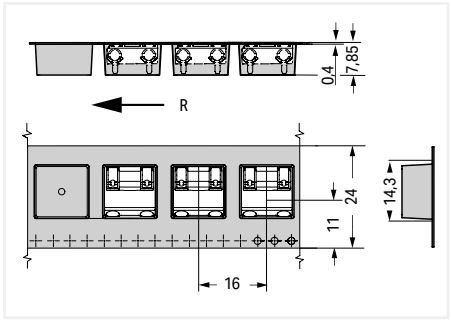
THR PCB terminal block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 8 mm / 0.314 inch ▸ Solder pin length: 2.4 mm

Color: white

Pole No.	Item No.	PU (SPU)
2	2060-1852/998-404	4950 (550)

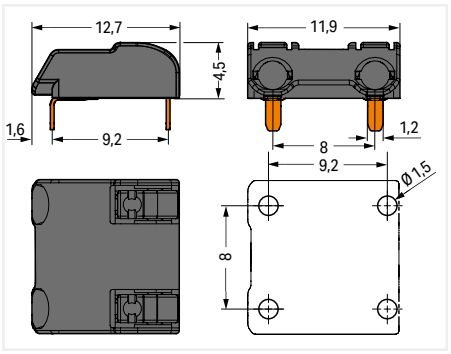


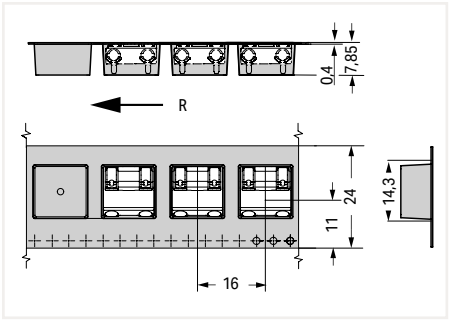


R = feed direction

Color: black

Pole No.	Item No.	PU (SPU)
2	2060-1872/998-404	4950 (550)





R = feed direction

Insert solid conductors via push-in termination.

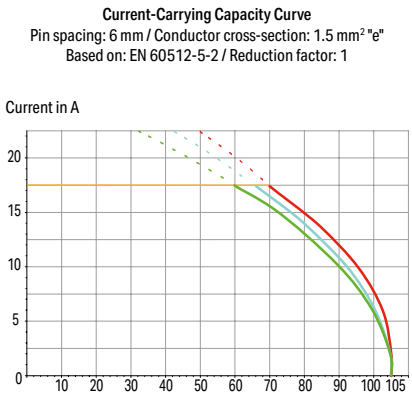
Insert/remove fine-stranded conductors by lightly pressing on push-button, e.g., via optional operating tool (206-860).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB terminal block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm / 0.24 inch ▸ Solder pin length: 1.5 mm

- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 5.6 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering
- Assemble terminal blocks without pole loss



Electrical Data			
Pin spacing	**6 mm / 0.24 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	600 V	-	600 V
Rated current	10 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	1.5 mm
Solder pin dimensions	1.2 x 0.35 mm
Plated through-hole diameter (THR)	1.5 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
150 µm material thickness
Stencil hole diameter identical to metal-plated PCB hole outer diameter

THR soldering	Page 268
Ferrule	Page 879
Tool	Page 299

See technical section for further information

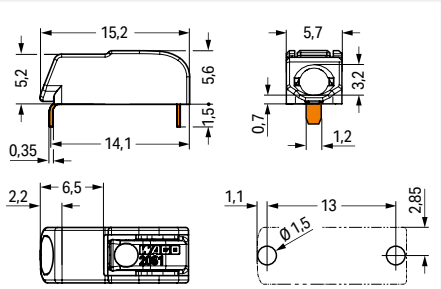
For approvals and corresponding ratings, visit www.wago.com

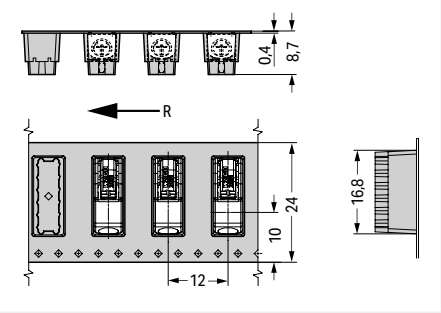
THR PCB terminal block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm / 0.24 inch ▸ Solder pin length: 1.5 mm

Color: white

Pole No.	Item No.	PU (SPU)
1	2061-1641/998-404	5760 (640)

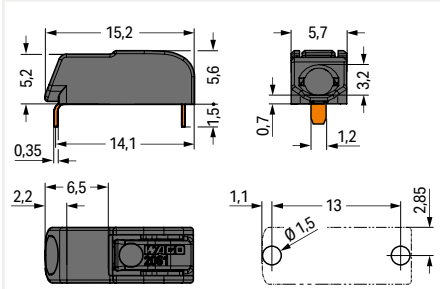


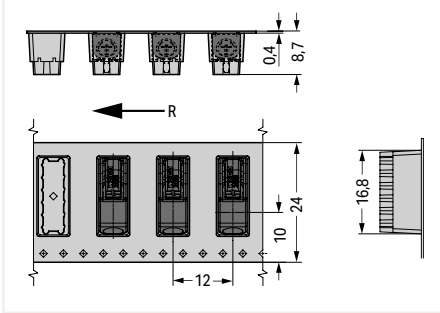


R = feed direction

Color: black

Pole No.	Item No.	PU (SPU)
1	2061-1661/998-404	5760 (640)





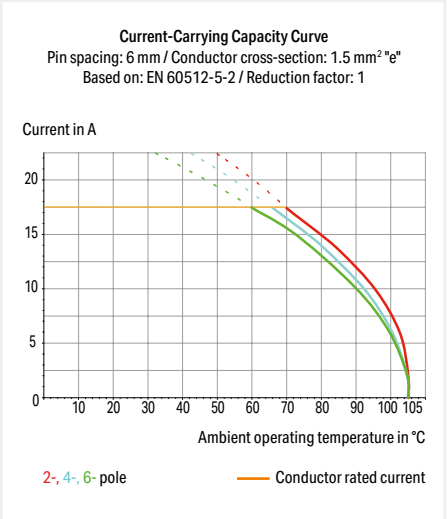
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB terminal block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm / 0.24 inch ▸ Solder pin length: 1.5 mm

- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 5.6 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering
- Assemble terminal blocks without pole loss



Electrical Data			
Pin spacing	**6 mm / 0.24 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	1.5 mm
Solder pin dimensions	1.2 x 0.35 mm
Plated through-hole diameter (THR)	1.5 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
150 µm material thickness
Stencil hole diameter identical to metal-plated PCB hole outer diameter

THR soldering	Page 268
Ferrule	Page 879
Tool	Page 299

See technical section for further information

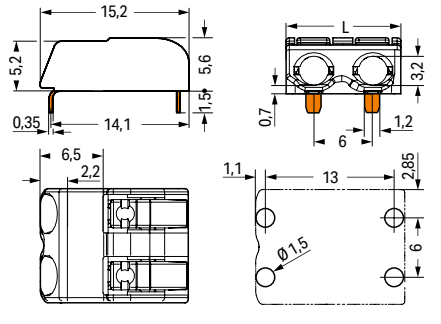
For approvals and corresponding ratings, visit www.wago.com

THR PCB terminal block ▸ 2061 Series

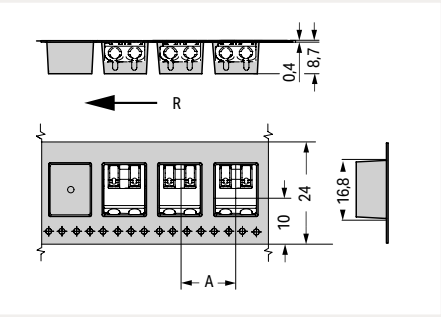
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm / 0.24 inch ▸ Solder pin length: 1.5 mm

Color: white

Pole No.	Item No.	PU (SPU)
2	2061-1642/998-404	4320 (480)
3	2061-1643/998-404	2880 (320)



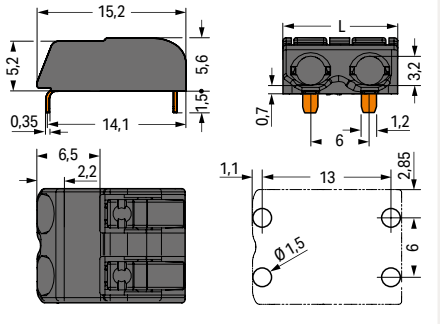
L = (pole no. x pin spacing) – 0.3 mm



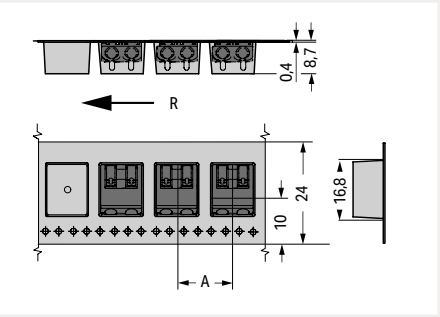
R = feed direction
A = 16 mm (2-pole)
A = 22 mm (3-pole)

Color: black

Pole No.	Item No.	PU (SPU)
2	2061-1662/998-404	4320 (480)
3	2061-1663/998-404	2880 (320)



L = (pole no. x pin spacing) – 0.3 mm



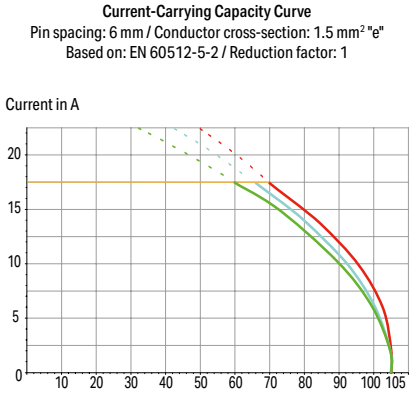
R = feed direction
A = 16 mm (2-pole)
A = 22 mm (3-pole)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB terminal block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm / 0.24 inch ▸ Solder pin length: 2.4 mm

- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 5.6 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering
- Assemble terminal blocks without pole loss



Electrical Data			
Pin spacing	**6 mm / 0.24 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	600 V	-	600 V
Rated current	10 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Within the terminal block (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.35 mm
Plated through-hole diameter (THR)	1.5 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
150 µm material thickness
Stencil hole diameter identical to metal-plated PCB hole outer diameter

THR soldering	Page 268
Ferrule	Page 879
Tool	Page 299

See technical section for further information

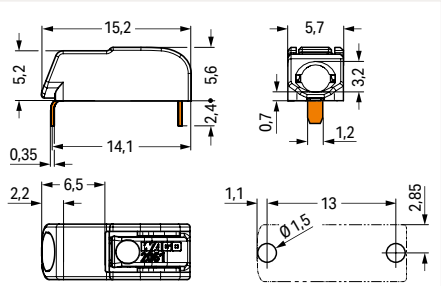
For approvals and corresponding ratings, visit www.wago.com

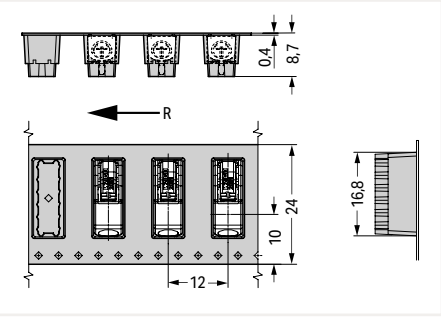
THR PCB terminal block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm / 0.24 inch ▸ Solder pin length: 2.4 mm

Color: white

Pole No.	Item No.	PU (SPU)
1	2061-1601/998-404	5760 (640)

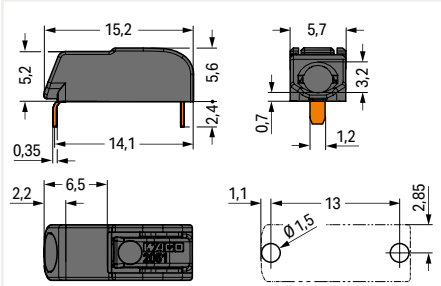


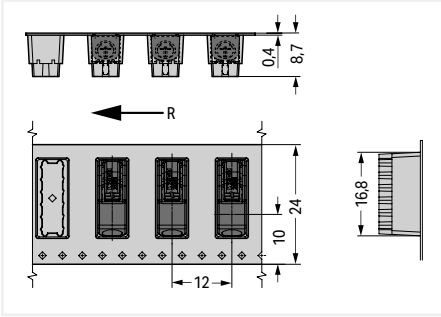


R = feed direction

Color: black

Pole No.	Item No.	PU (SPU)
1	2061-1621/998-404	5760 (640)





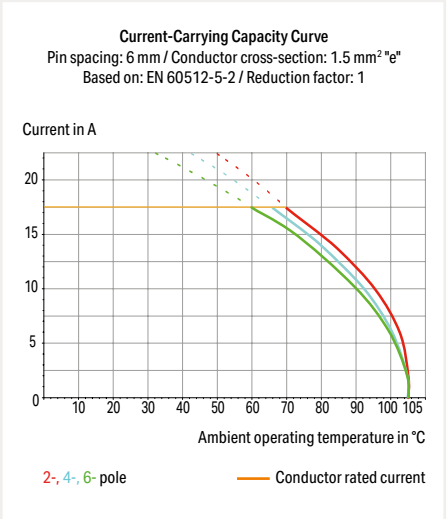
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB terminal block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm / 0.24 inch ▸ Solder pin length: 2.4 mm

- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 5.6 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering
- Assemble terminal blocks without pole loss



Electrical Data			
Pin spacing	**6 mm / 0.24 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.35 mm
Plated through-hole diameter (THR)	1.5 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
150 µm material thickness
Stencil hole diameter identical to metal-plated PCB hole outer diameter

THR soldering	Page 268
Ferrule	Page 879
Tool	Page 299

See technical section for further information

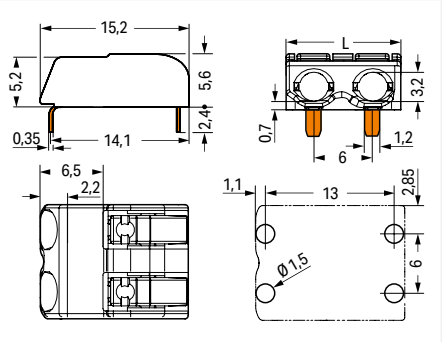
For approvals and corresponding ratings, visit www.wago.com

THR PCB terminal block ▸ 2061 Series

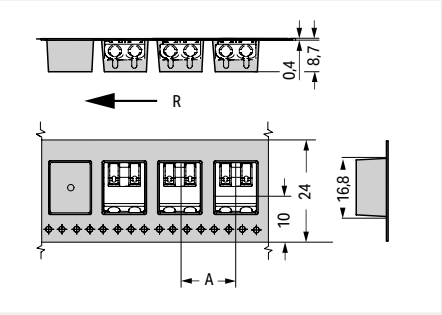
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm / 0.24 inch ▸ Solder pin length: 2.4 mm

Color: white

Pole No.	Item No.	PU (SPU)
2	2061-1602/998-404	4320 (480)
3	2061-1603/998-404	2880 (320)



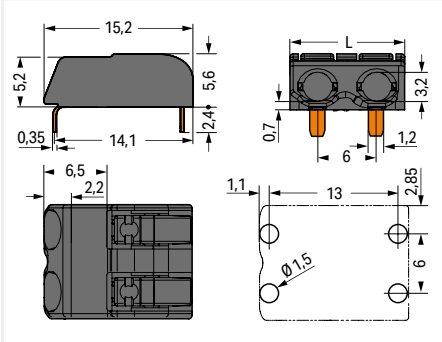
L = (pole no. x pin spacing) – 0.3 mm



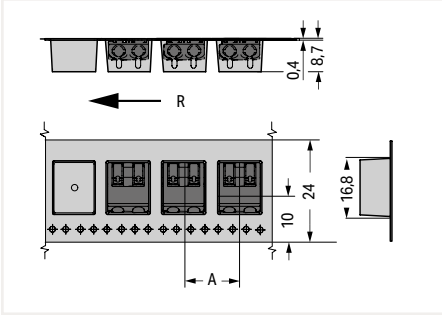
R = feed direction
A = 16 mm (2-pole)
A = 22 mm (3-pole)

Color: black

Pole No.	Item No.	PU (SPU)
2	2061-1622/998-404	4320 (480)
3	2061-1623/998-404	2880 (320)



L = (pole no. x pin spacing) – 0.3 mm

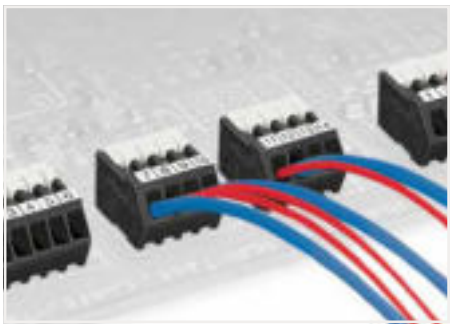


R = feed direction
A = 16 mm (2-pole)
A = 22 mm (3-pole)

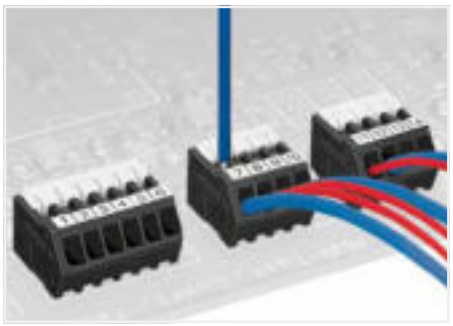
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

218 Series
Description and Installation

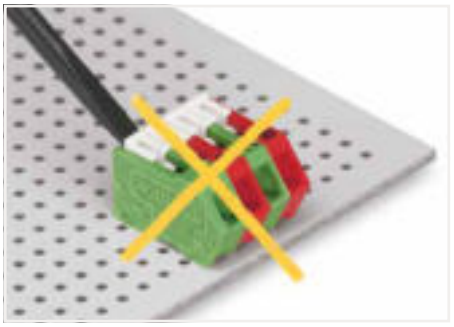
Terminating stranded conductors in confined spaces requires a great deal of patience, unless you use the new 218 Series PCB Terminal Strips. The clamping units of these strips can be held open during termination process via integrated locking slide.



Terminating 0.75 mm² (18 AWG) conductors is possible; however, insulation diameter allows only every other clamping unit to be terminated with this conductor size.

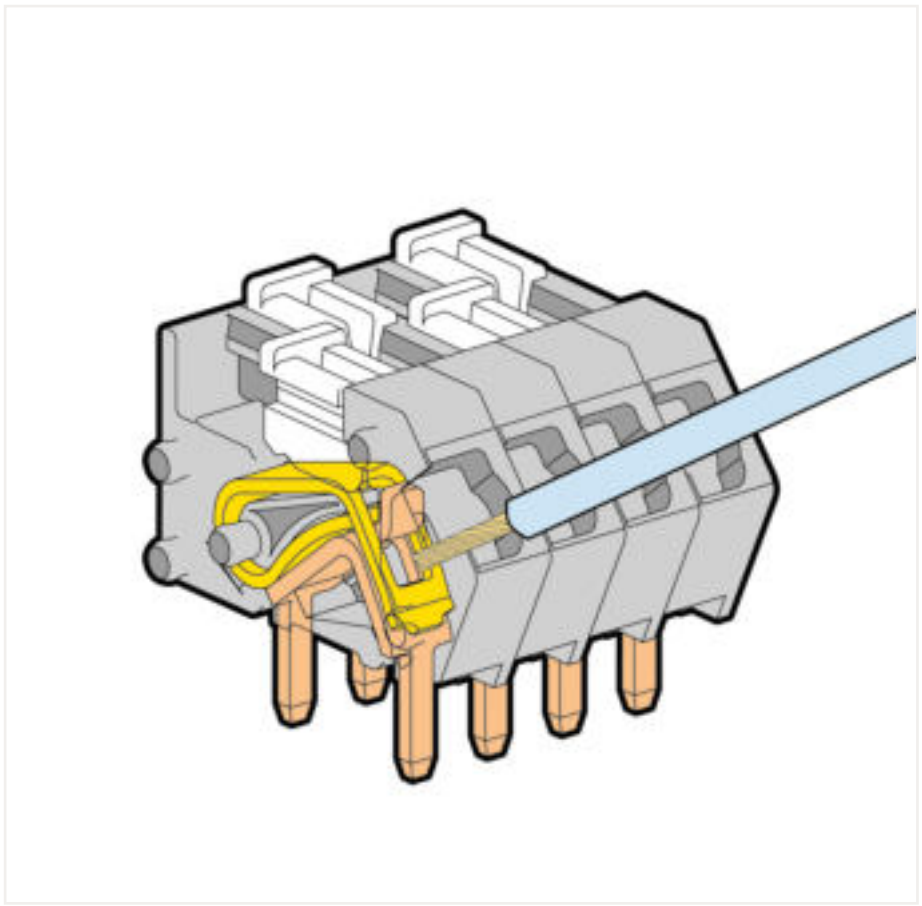


Testing directly on the clamping spring.



Incorrect – do not operate the locking slides from the back.

Conductor termination: To momentarily open the clamping unit, use screwdriver and then insert a stripped conductor. To open clamping unit for an extended period, move locking slide toward conductor entry hole. Then fully insert stripped conductor and move locking slide back to original position (also possible to perform with fingernail).



218 Series

236 and 250 Series
Description and Installation

Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation parallel to conductor entry.

Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation perpendicular to conductor entry.

Inserting a conductor via operating tool.

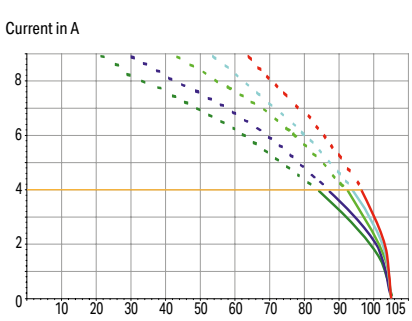
Inserting solid conductors via push-in termination.
Inserting fine-stranded conductors via push-buttons,
250 Series – 3.5 mm pin spacing.

Testing with 11 mm Ø test pin, on the conductor,
250 Series – 2.5 … 3.5 mm pin spacing.

THR PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ 0.5 mm² ▸ Pin spacing: 2.5 mm / 0.098 inch ▸ Color: black

- Cost-effective integration of high-temperature resistant THR terminal strips into SMT reflow soldering processes
- Push-in termination of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring



Electrical Data			
Pin spacing	2.5 mm / 0.098 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	250 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	4 A	4 A	4 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.14 … 0.5 mm² / 24 … 20 AWG
Fine-stranded conductor	0.2 … 0.5 mm² / 24 … 20 AWG
Conductor diameter	0.4 … 0.8 mm

Material Data	
Material group	IIIa
Insulation material	Polyamide (PA46)
Flammability class per UL94	V2
Clamping spring material	Copper alloy
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin length	2.4 mm
Solder pin dimensions	0.4 x 0.75 mm
Plated through-hole diameter (THR)	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

THR soldering	Page 268
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870

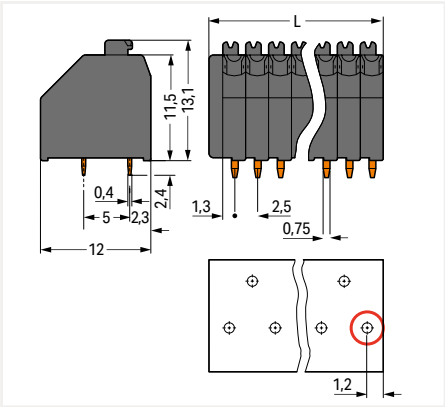
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ 0.5 mm² ▸ Pin spacing: 2.5 mm / 0.098 inch ▸ Color: black

Pole No.	Item No.	PU (SPU)
2	250-402/353-604	720 (180)
3	250-403/353-604	520 (130)
4	250-404/353-604	400 (100)
5	250-405/353-604	340 (85)
6	250-406/353-604	280 (70)
7	250-407/353-604	240 (60)
8	250-408/353-604	220 (55)
10	250-410/353-604	180 (45)



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

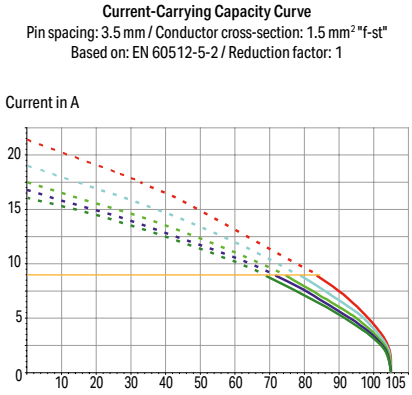
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking

THR PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: black

- Cost-effective integration of high-temperature resistant THR terminal strips into SMT reflow soldering processes
- Versions with suction pads are available in tape-and-reel packaging for automated assembly
- Push-in termination of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring



Electrical Data			
Pin spacing	3.5 mm / 0.138 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	320 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	8 A	8 A	8 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	IIIa
Insulation material	Polyamide (PA46)
Flammability class per UL94	V2
Clamping spring material	Copper alloy
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin length	2.4 mm
Solder pin dimensions	0.4 x 0.75 mm
Plated through-hole diameter (THR)	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

THR soldering	Page 268
Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR PCB terminal block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Color: black

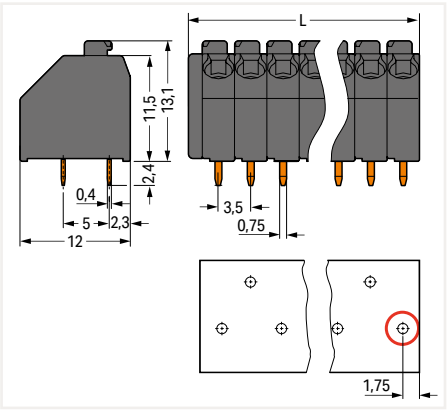
Suitable for automated assembly

250-206/350-604

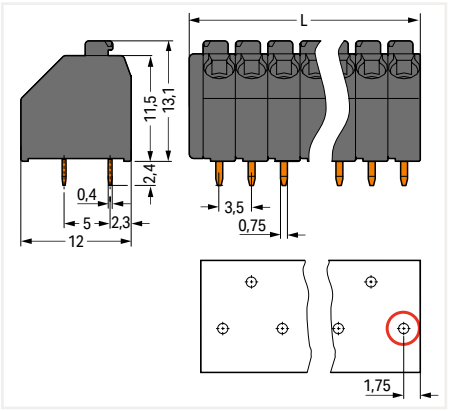
250-206/350-604

Pole No.	Item No.	PU (SPU)
2	250-202/353-604	560 (140)
3	250-203/353-604	400 (100)
4	250-204/353-604	300 (75)
5	250-205/353-604	240 (60)
6	250-206/353-604	200 (50)
7	250-207/353-604	180 (45)
8	250-208/353-604	160 (40)

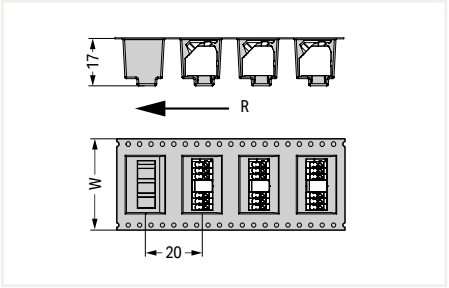
Pole No.	Tape width	Item No.	PU
2	24 mm	250-202/353-604/997-404	160
3	24 mm	250-203/353-604/997-404	160
4	32 mm	250-204/353-604/997-405	160
5	32 mm	250-205/353-604/997-405	160
6	44 mm	250-206/353-604/997-406	160
7	44 mm	250-207/353-604/997-406	160
8	44 mm	250-208/353-604/997-406	160



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)



W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

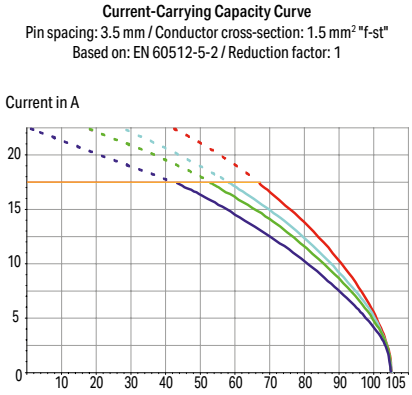
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking

THR PCB terminal block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ 1.5 mm² ▸ Color: black

- THR PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled, fine-stranded conductors
- Flush-mount push-buttons that close with minimal force for convenient termination/removal of fine-stranded conductors
- Convenient, tool-free operation



Electrical Data			
Pin spacing	**3.5 mm / 0.138 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	320 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	10 A	10 A	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	IIIa
Insulation material	Polyamide (PA46)
Flammability class per UL94	V2
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (staggered)
Solder pin length	2.2 mm
Solder pin dimensions	0.5 x 0.75 mm
Plated through-hole diameter (THR)	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

THR soldering	Page 268
Ferrule	Page 879
Marking	Page 864
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR PCB terminal block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ 1.5 mm² ▸ Color: black

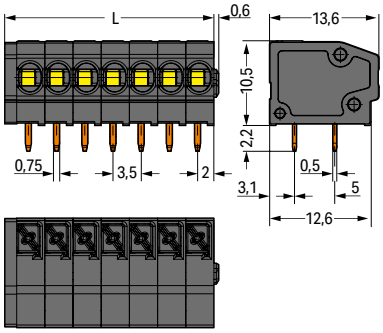
Suitable for automated assembly

805-306/200-604

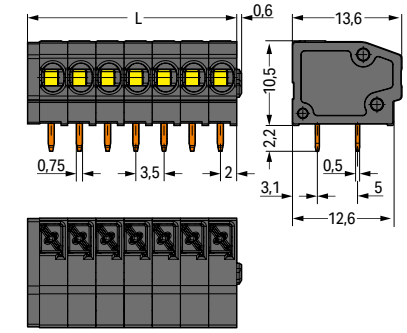
805-306/200-604

Pole No.	Item No.	PU (SPU)
2	805-302/200-604	580 (145)
3	805-303/200-604	420 (105)
4	805-304/200-604	320 (80)
5	805-305/200-604	260 (65)
6	805-306/200-604	220 (55)
7	805-307/200-604	180 (45)
8	805-308/200-604	160 (40)

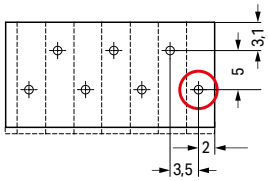
Pole No.	Tape width	Item No.	PU
2	24 mm	805-302/200-604/997-404	160
3	32 mm	805-303/200-604/997-405	160
4	32 mm	805-304/200-604/997-405	160
5	32 mm	805-305/200-604/997-405	160
6	44 mm	805-306/200-604/997-406	160
7	44 mm	805-307/200-604/997-406	160
8	44 mm	805-308/200-604/997-406	160



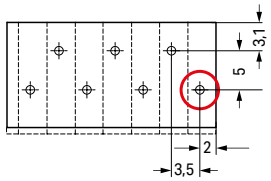
L = (pole no. x pin spacing) + 1.5 mm



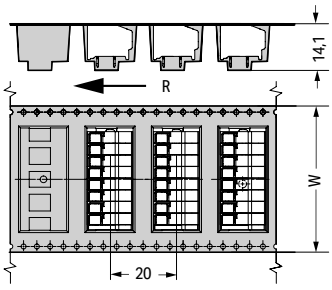
L = (pole no. x pin spacing) + 1.5 mm



First solder pin, front right (red circle)



First solder pin, front right (red circle)



R = feed direction
W = tape width

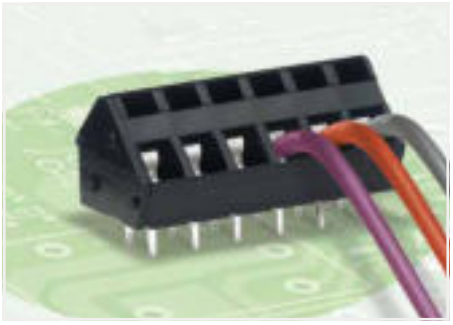
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

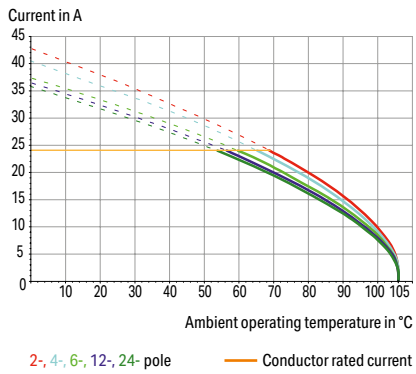
- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

THR PCB terminal block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: black



- PCB terminal strips made of high-temperature resistant plastic are suitable for SMT reflow soldering
- Double solder pins for high mechanical stability



Electrical Data			
Pin spacing	5 mm / 0.197 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	320 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	IIIa
Insulation material	Polyamide (PA46)
Flammability class per UL94	V2
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	3.6 mm
Solder pin dimensions	0.7 x 0.7 mm
Plated through-hole diameter (THR)	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +115 °C

THR soldering	Page 268
Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 298
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR PCB terminal block ▸ 236 Series

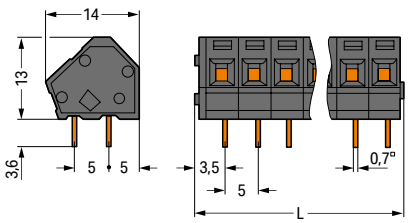
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: black

Suitable for automated assembly

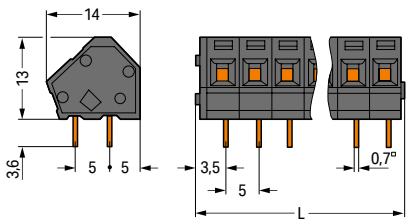
236-406/334-604

Pole No.	Item No.	PU (SPU)
2	236-402/334-604	420 (105)
3	236-403/334-604	280 (70)
4	236-404/334-604	220 (55)
5	236-405/334-604	180 (45)
6	236-406/334-604	140 (35)

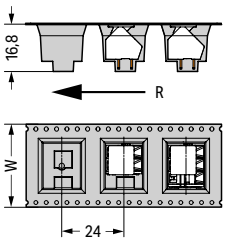
Pole No.	Tape width	Item No.	PU
2	32 mm	236-402/334-604/997-405	140
3	32 mm	236-403/334-604/997-405	140
4	44 mm	236-404/334-604/997-406	140
5	44 mm	236-405/334-604/997-406	140
6	44 mm	236-406/334-604/997-406	140



L = (pole no. x pin spacing) + 2.3 mm



L = (pole no. x pin spacing) + 2.3 mm



W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

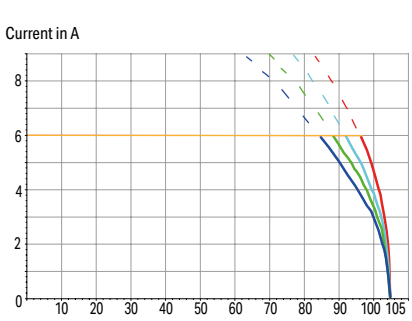
- Other pole numbers
- Direct marking

THR PCB terminal block ▸ 218 Series

CAGE CLAMP® ▸ Actuation type: Slider ▸ Actuation type: Slider ▸ 0.5 mm² ▸ Terminal strip ▸ Color: black

- Terminal strips are just 8.1 mm tall and feature an innovative, locking slide-actuated CAGE CLAMP®
- Several clamping units can be held open simultaneously
- Easily terminate stranded conductors in tight spaces (e.g., bus connectors)

- THR soldering provides integration into SMT assembly and soldering processes



Electrical Data			
Pin spacing	**2.54 mm / 0.1 inch**	**2.5 mm / 0.098 inch**	
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	32 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	40 °
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 mm²
Note (conductor cross-section)	Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.

Material Data	
Material group	IIIa
Insulation material	Polyamide (PA46)
Flammability class per UL94	V2
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	2.8 mm
Solder pin dimensions	0.5 x 0.75 mm
Plated through-hole diameter (THR)	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

THR soldering	Page 268
Ferrule	Page 879
Marking	Page 864
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR PCB terminal block ▸ 218 Series

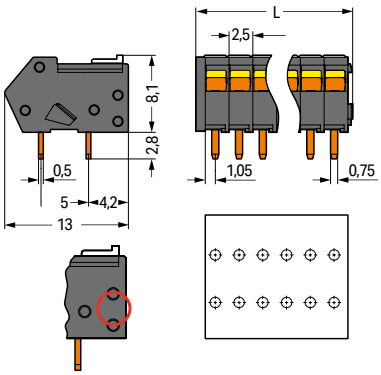
CAGE CLAMP® ▸ Actuation type: Slider ▸ Actuation type: Slider ▸ 0.5 mm² ▸ Terminal strip ▸ Color: black

Pin spacing: 2.5 mm / 0.098 inch

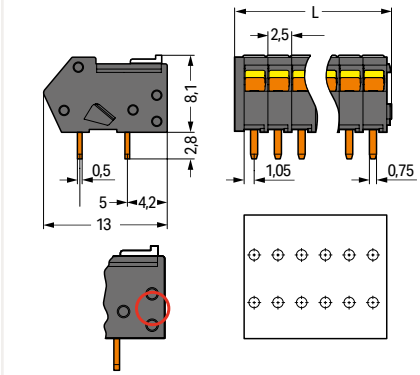
Suitable for automated assembly

Pole No.	Item No.	PU (SPU)
2	218-102/000-604	1000 (100)
3	218-103/000-604	1000 (100)
4	218-104/000-604	500 (100)
5	218-105/000-604	500 (100)
6	218-106/000-604	280 (70)
7	218-107/000-604	240 (60)

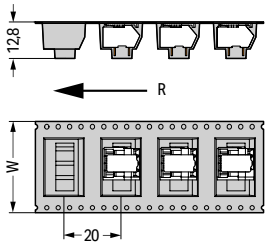
Pole No.	Tape width	Item No.	PU
2	16 mm	218-102/000-604/997-403	250
3	32 mm	218-103/000-604/997-405	250
4	32 mm	218-104/000-604/997-405	250
5	32 mm	218-105/000-604/997-405	250
6	32 mm	218-106/000-604/997-405	250
7	32 mm	218-107/000-604/997-405	250



L = (pole no. x pin spacing) + 1.5 mm



L = (pole no. x pin spacing) + 1.5 mm



W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking

THR PCB terminal block ▸ 218 Series

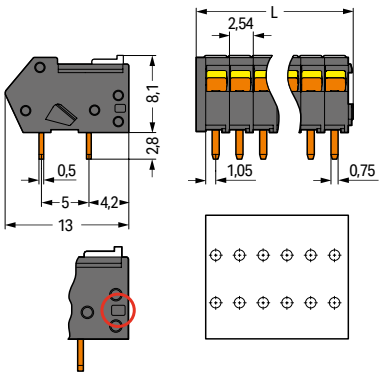
CAGE CLAMP® ▸ Actuation type: Slider ▸ Actuation type: Slider ▸ 0.5 mm² ▸ Terminal strip ▸ Color: black

Pin spacing: 2.54 mm / 0.1 inch

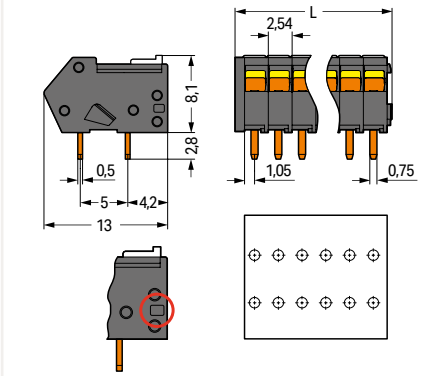
Suitable for automated assembly

Pole No.	Item No.	PU (SPU)
2	218-502/000-604	1000 (100)
3	218-503/000-604	1000 (100)
4	218-504/000-604	500 (100)
5	218-505/000-604	500 (100)
6	218-506/000-604	280 (70)
7	218-507/000-604	240 (60)

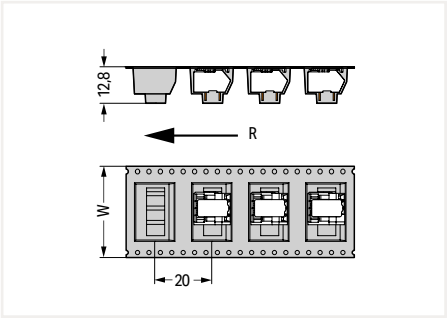
Pole No.	Tape width	Item No.	PU
2	16 mm	218-502/000-604/997-403	250
3	32 mm	218-503/000-604/997-405	250
4	32 mm	218-504/000-604/997-405	250
5	32 mm	218-505/000-604/997-405	250
6	32 mm	218-506/000-604/997-405	250
7	32 mm	218-507/000-604/997-405	250



L = (pole no. x pin spacing) + 1.5 mm
A groove at the back of the terminal strip indicates the 2.54 mm pin spacing (red circle).



L = (pole no. x pin spacing) + 1.5 mm
A groove at the back of the terminal strip indicates the 2.54 mm pin spacing (red circle).



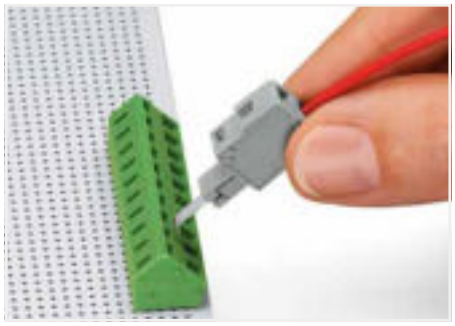
W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking

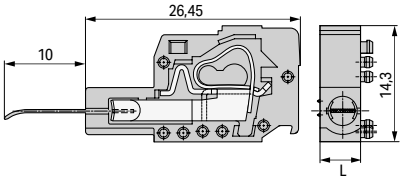
Test Plug Modules, A-Type Contact, for 236 Series PCB Terminal Blocks
(Testing unwired terminal blocks)



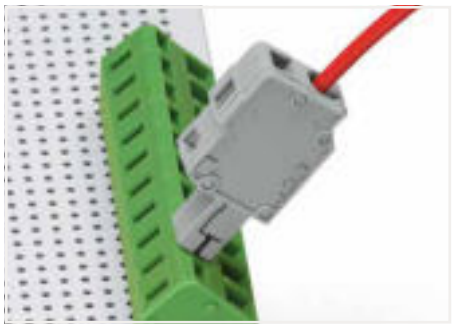
Inserting a test plug module into the operating slot.

Test plug module, with 10 mm contact lug, for 236 Series, snaps together, gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	231-127	100
7.5 mm / 0.295 inch	231-161	100

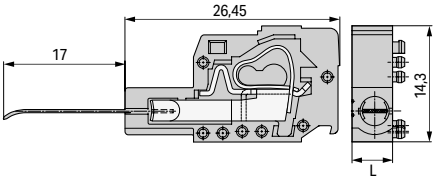
Test plug module, with 10 mm contact lug, for 236 Series, snaps together, orange		
Pin spacing	Item No.	PU (SPU)
5.08 mm / 0.2 inch	231-128	100
7.62 mm / 0.3 inch	231-125	100



L = Pin spacing



Unwired terminal strip with inserted test plug module



L = Pin spacing

Contact type A:
Testing only when unwired.

Electrical Data		
Ratings per	IEC/EN 60664-1	
Overvoltage category	III	
Pollution degree	2	
Rated voltage (III/2)	250 V*	
Rated surge voltage (III / 2)	2,5 kV	
Rated current	0,5 A	

End plate	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Solid conductor	0,08 … 2,5 mm² / 28 … 12 AWG
Fine-stranded conductor	0,08 … 2,5 mm² / 28 … 12 AWG

Accessories; for all products on this page

End plate		
Color	Item No.	PU (SPU)
gray	231-100	200

End plate		
Color	Item No.	PU (SPU)
orange	231-300	200

*(III / 2) ≙ Overvoltage category III / Pollution degree 2

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Operating Tools

Operating tool for 2059, 2060 and 2061 Series		
Series	**Item No.**	PU (SPU)
2060	**206-860**	5
2061	**206-861**	5

Operating tool, insulated, for 2059, 2060 and 2061 Series		
Series	**Item No.**	PU (SPU)
2060	**2060-189**	300 (50)
2061	**2061-189**	300 (50)

Inserting/removing fi ne-stranded conductors by lightly pressing on a push-button.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

WAGO SMD PCB Terminal Blocks

WAGO SMD PCB Terminal Blocks

		Nominal Cross-Section	Series	Page
	SMD PCB Terminal Blocks ▸ Actuation type: Push-button ▸ PUSH WIRE®	0.34 mm²	2059	302
	SMD PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	0.75 mm²	2060	306
	SMD PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	1.5 mm²	2061	312
	SMD PCB Terminal Blocks ▸ Actuation type: Push-in ▸ PUSH WIRE®	0.75 mm²	2065	316
	SMD PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	0.75 mm²	2065	318
	Through-Board-SMD PCB Terminal Blocks ▸ ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	0.75 mm²	2070	320
	Board-to-Board Links for SMD PCB Terminal Blocks	0.5 mm²	2059	326
		0.75 mm²	2060	328
		1.5 mm²	2061	330
		0,75 mm²	2065	332
	Accessories for SMD PCB Terminal Blocks			334
	Accessories and Tools			861

SMD PCB terminal block ▸ 2059 Series

PUSH WIRE® ▸ Pin spacing: 3 mm / 0.118 inch ▸ Actuation type: Operating tool ▸ 0.34 mm²

- SMD PCB terminal blocks with PUSH WIRE® connection technology
- Push-in termination of solid conductors
- Easy conductor removal via operating tool
- Height of just 2.7 mm
- Assemble terminal blocks without pole loss
- Available in tape-and-reel packaging for automated assembly

3

Electrical Data				
Pin spacing	**3 mm / 0.118 inch**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	63 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	3 A	3 A	3 A	
Approbations per	UL 1977			
Rated voltage	600 V			
Rated current	3 A			

Connection Data	
Connection technology	PUSH WIRE®
Strip length	4 … 5.5 mm / 0.16 … 0.22 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.14 … 0.34 mm² / 26 … 22 AWG
Note (conductor cross-section)	For conductors (26 AWG) that are not rigid enough, the clamping unit must be opened using an operating tool.
Strip length 2	6 … 7.5 mm / 0.24 … 0.3 inch
Solid conductor 2	0.5 mm² / 20 AWG
Note (conductor cross-section) 2	No reconnection of smaller conductor cross-sections (0.5 mm²/20 AWG)

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
Material thickness: 150 µm; Pattern layout identical to solder pad layout

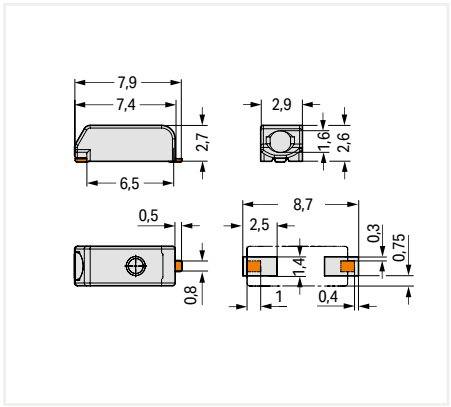
General accessories	Page 327
Tool	Page 334
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

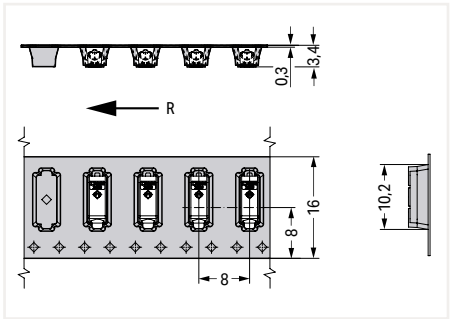
SMD PCB terminal block ▸ 2059 Series

PUSH WIRE® ▸ Pin spacing: 3 mm / 0.118 inch ▸ Actuation type: Operating tool ▸ 0.34 mm²

Color: white

Pole No.	Item No.	PU (SPU)
1	2059-301/998-403	31800 (2650)

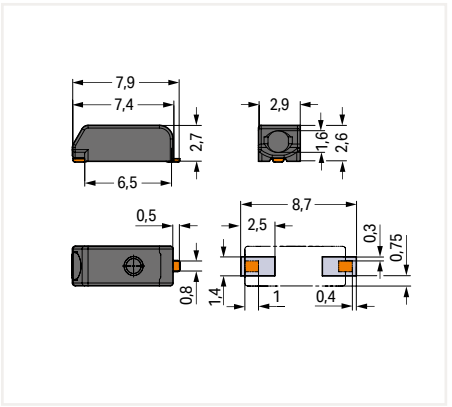


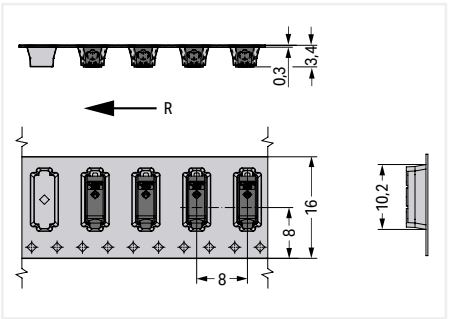


R = feed direction

Color: black

Pole No.	Item No.	PU (SPU)
1	2059-321/998-403	31800 (2650)





R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB terminal block ▸ 2059 Series

PUSH WIRE® ▸ Pin spacing: 3 mm / 0.118 inch ▸ Actuation type: Operating tool ▸ 0.34 mm²

- SMD PCB terminal blocks with PUSH WIRE® connection technology
- Push-in termination of solid conductors
- Easy conductor removal via operating tool
- Height of just 2.7 mm
- Assemble terminal blocks without pole loss
- Available in tape-and-reel packaging for automated assembly

3

Electrical Data				
Pin spacing	**3 mm / 0.118 inch**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	63 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	3 A	3 A	3 A	
Approbations per	UL 1977			
Rated voltage	250 V			
Rated current	3 A			

Connection Data	
Connection technology	PUSH WIRE®
Strip length	4 … 5.5 mm / 0.16 … 0.22 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.14 … 0.34 mm² / 26 … 22 AWG
Note (conductor cross-section)	For conductors (26 AWG) that are not rigid enough, the clamping unit must be opened using an operating tool.
Strip length 2	6 … 7.5 mm / 0.24 … 0.3 inch
Solid conductor 2	0.5 mm² / 20 AWG
Note (conductor cross-section) 2	No reconnection of smaller conductor cross-sections (0.5 mm²/20 AWG)

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
Material thickness: 150 µm; Pattern layout identical to solder pad layout

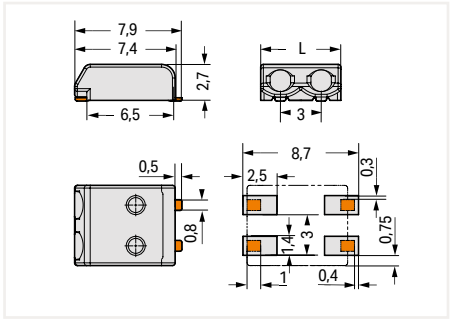
General accessories	Page 327
Tool	Page 334
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

SMD PCB terminal block ▸ 2059 Series

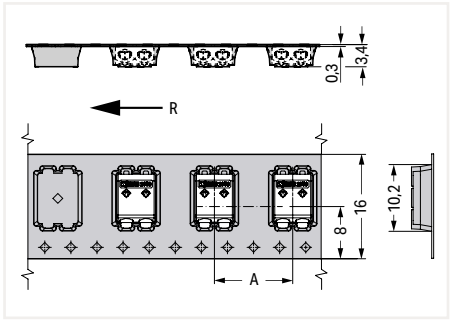
PUSH WIRE® ▸ Pin spacing: 3 mm / 0.118 inch ▸ Actuation type: Operating tool ▸ 0.34 mm²

Color: white

Pole No.	Item No.	PU (SPU)
2	2059-302/998-403	21000 (1750)
3	2059-303/998-403	21000 (1750)



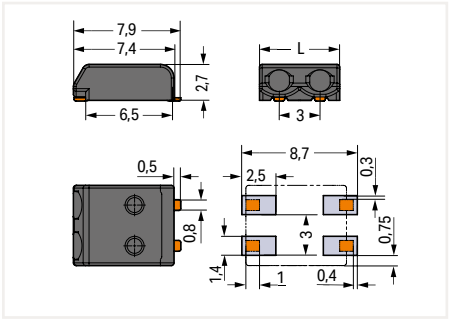
L = (pole no. x pin spacing) – 0.1 mm



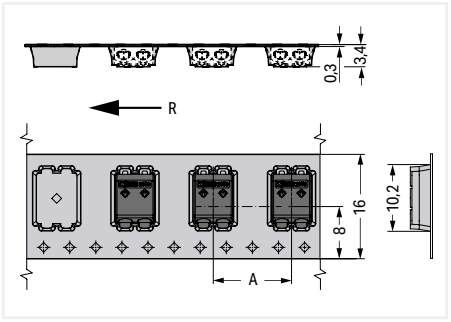
R = feed direction
A = 12 mm (2- and 3-pole)

Color: black

Pole No.	Item No.	PU (SPU)
2	2059-322/998-403	21000 (1750)
3	2059-323/998-403	21000 (1750)



L = (pole no. x pin spacing) – 0.1 mm



R = feed direction
A = 12 mm (2- and 3-pole)

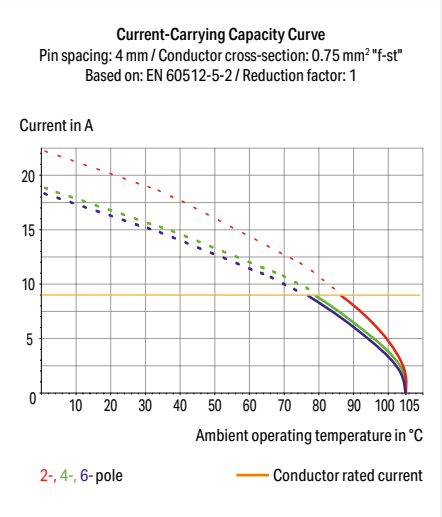
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB terminal block ▶ 2060 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 4 mm / 0.157 inch ▶ Actuation type: Push-button ▶ 0.75 mm²

- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly

3



Electrical Data			
Pin spacing	**4 mm / 0.157 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	9 A	9 A	9 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 9 mm / 0.28 … 0.35 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.34 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
Material thickness: 150 µm; Pattern layout identical to solder pad layout

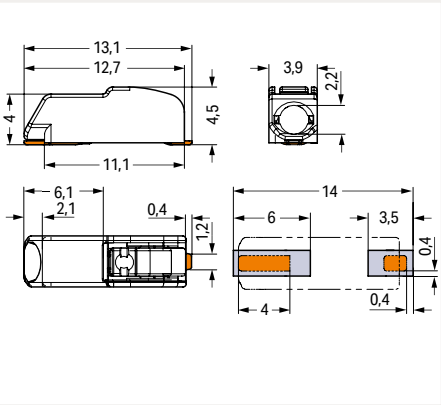
Ferrule	Page 879
General accessories	Page 329
Tool	Page 334
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

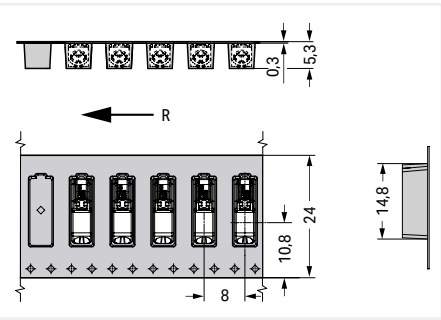
SMD PCB terminal block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 4 mm / 0.157 inch ▸ Actuation type: Push-button ▸ 0.75 mm²

Color: white

Pole No.	Item No.	PU (SPU)
1	2060-451/998-404	13500 (1500)

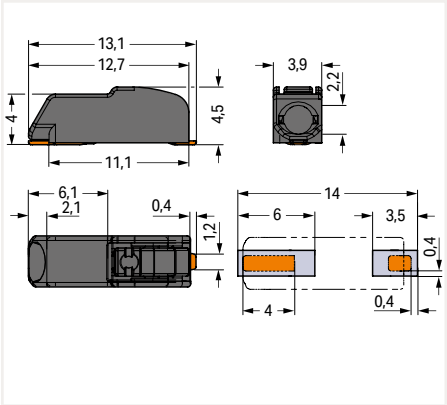


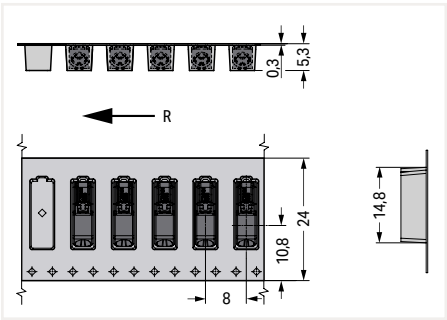


R = feed direction

Color: black

Pole No.	Item No.	PU (SPU)
1	2060-471/998-404	13500 (1500)





R = feed direction

Insert solid conductors via push-in termination.

Insert/remove fine-stranded conductors by lightly pressing on push-button, e.g., via optional operating tool (206-860).

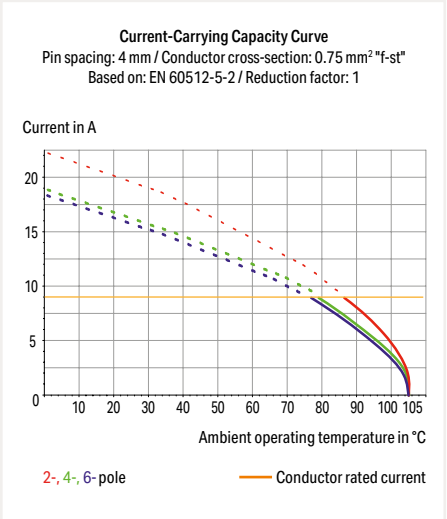
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB terminal block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 4 mm / 0.157 inch ▸ Actuation type: Push-button ▸ 0.75 mm²

- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly

3



Electrical Data			
Pin spacing	**4 mm / 0.157 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	9 A	9 A	9 A
Approbations per	UL 1977		
Rated voltage	320 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 9 mm / 0.28 … 0.35 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.34 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
Material thickness: 150 µm; Pattern layout identical to solder pad layout

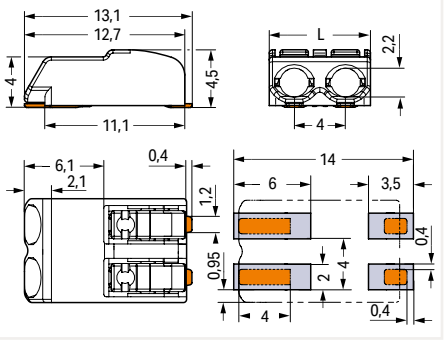
Ferrule	Page 879
General accessories	Page 329
Tool	Page 334
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

SMD PCB terminal block ▸ 2060 Series

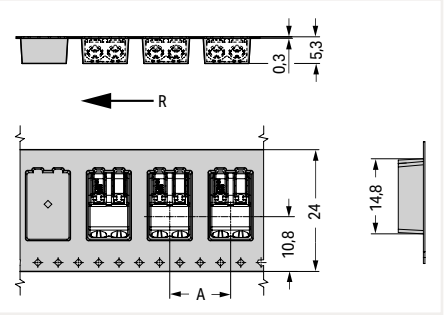
Push-in CAGE CLAMP® ▸ Pin spacing: 4 mm / 0.157 inch ▸ Actuation type: Push-button ▸ 0.75 mm²

Color: white

Pole No.	Item No.	PU (SPU)
2	2060-452/998-404	9000 (1000)
3	2060-453/998-404	6750 (750)



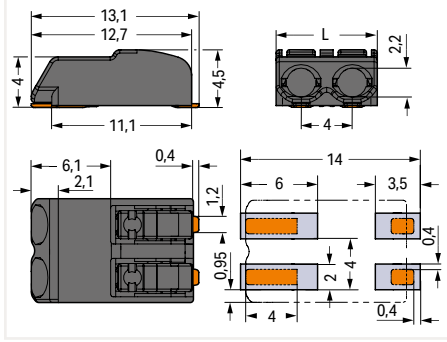
L = (pole no. x pin spacing) – 0.1 mm



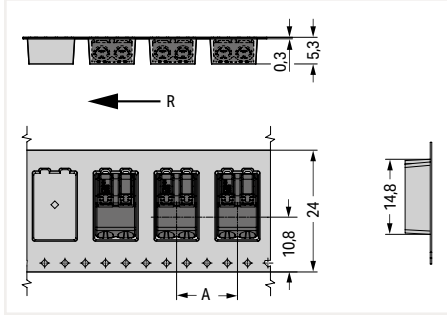
R = feed direction
A = (pole no. x pin spacing) + 4 mm

Color: black

Pole No.	Item No.	PU (SPU)
2	2060-472/998-404	9000 (1000)
3	2060-473/998-404	6750 (750)



L = (pole no. x pin spacing) – 0.1 mm



R = feed direction
A = (pole no. x pin spacing) + 4 mm

Insert solid conductors via push-in termination.

Insert/remove fine-stranded conductors by lightly pressing on push-button, e.g., via optional operating tool (206-860).

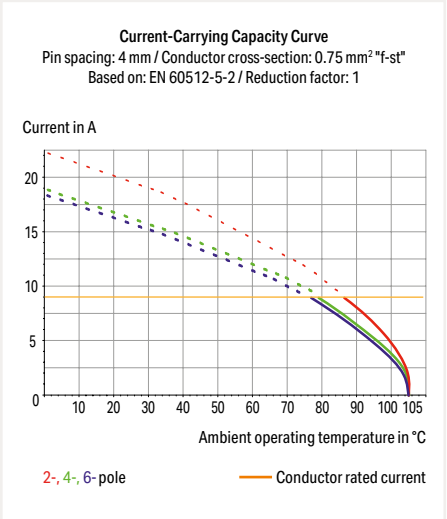
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB terminal block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 8 mm / 0.314 inch ▸ Actuation type: Push-button ▸ 0.75 mm²

- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly

3



Electrical Data			
Pin spacing	**8 mm / 0.314 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	400 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	9 A	9 A	9 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 9 mm / 0.28 … 0.35 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.34 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
Material thickness: 150 µm; Pattern layout identical to solder pad layout

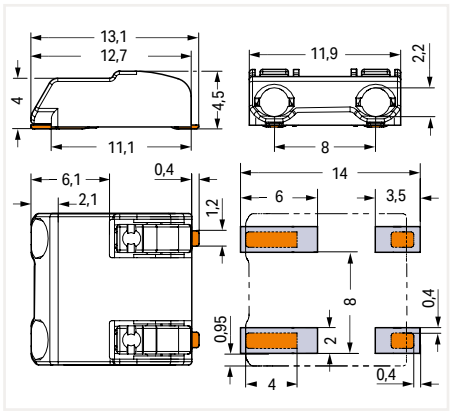
Ferrule	Page 879
General accessories	Page 329
Tool	Page 334
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

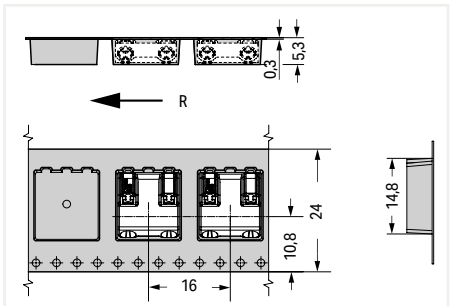
SMD PCB terminal block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 8 mm / 0.314 inch ▸ Actuation type: Push-button ▸ 0.75 mm²

Color: white

Pole No.	Item No.	PU (SPU)
2	2060-852/998-404	6750 (750)

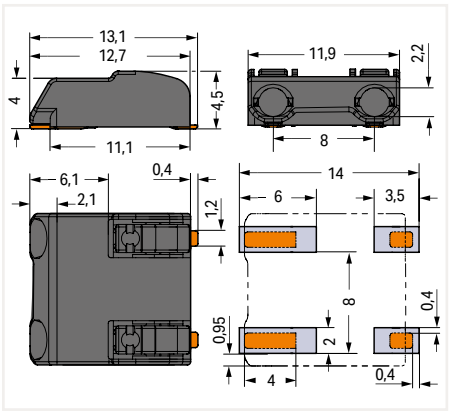


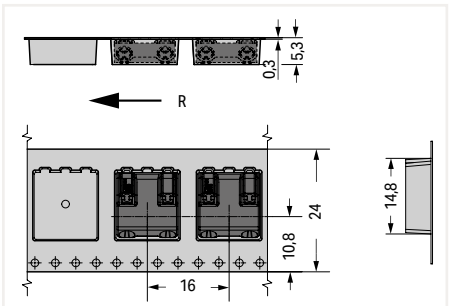


R = feed direction

Color: black

Pole No.	Item No.	PU (SPU)
2	2060-872/998-404	6750 (750)





R = feed direction

Insert solid conductors via push-in termination.

Insert/remove fine-stranded conductors by lightly pressing on push-button, e.g., via optional operating tool (206-860).

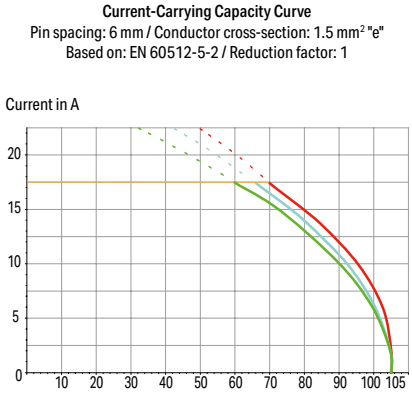
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB terminal block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6 mm / 0.24 inch ▸ Actuation type: Push-button ▸ 1.5 mm²

- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Just 5.6 mm tall
- Push-in termination of solid and ferruled conductors
- Push-button for easy connection and disconnection of all conductor types
- Available in tape-and-reel packaging for automated assembly

3



Electrical Data			
Pin spacing	**6 mm / 0.24 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	600 V	-	600 V
Rated current	10 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
150 µm material thickness; Pattern layout identical to solder pad layout

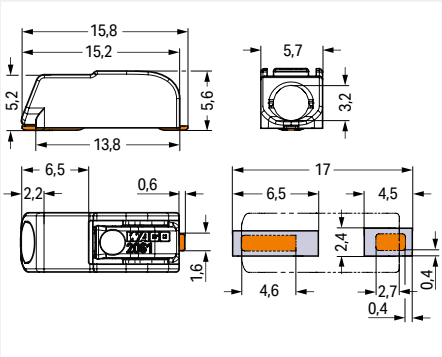
Ferrule	Page 879
General accessories	Page 331
Tool	Page 332
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

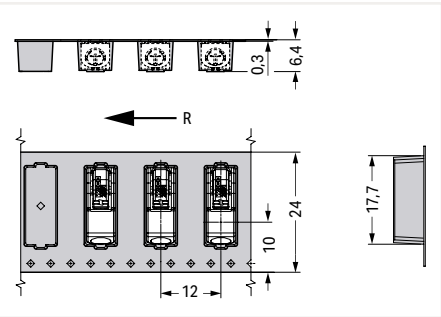
SMD PCB terminal block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6 mm / 0.24 inch ▸ Actuation type: Push-button ▸ 1.5 mm²

Color: white

Pole No.	Item No.	PU (SPU)
1	2061-601/998-404	8100 (900)

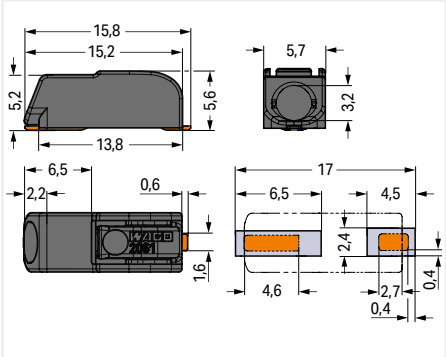


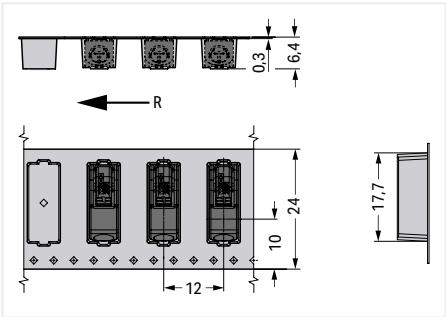


R = feed direction

Color: black

Pole No.	Item No.	PU (SPU)
1	2061-621/998-404	8100 (900)





R = feed direction

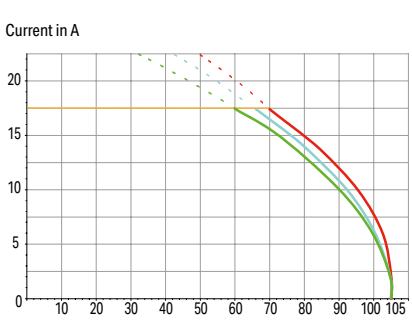
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB terminal block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6 mm / 0.24 inch ▸ Actuation type: Push-button ▸ 1.5 mm²

- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Just 5.6 mm tall
- Push-in termination of solid and ferruled conductors
- Push-button for easy connection and disconnection of all conductor types
- Available in tape-and-reel packaging for automated assembly

3



Electrical Data			
Pin spacing	**6 mm / 0.24 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Recommendation for stencil:
150 µm material thickness; Pattern layout identical to solder pad layout

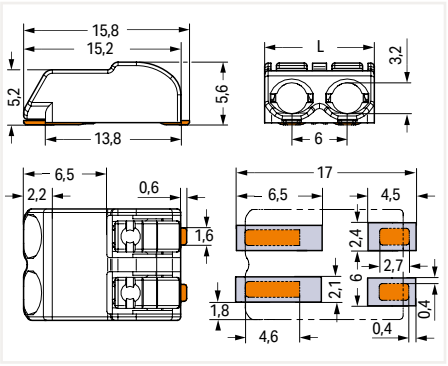
Ferrule	Page 879
General accessories	Page 331
Tool	Page 332
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

SMD PCB terminal block ▸ 2061 Series

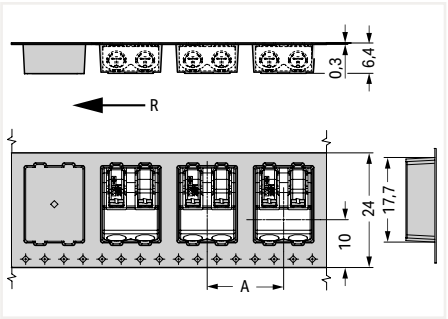
Push-in CAGE CLAMP® ▸ Pin spacing: 6 mm / 0.24 inch ▸ Actuation type: Push-button ▸ 1.5 mm²

Color: white

Pole No.	Item No.	PU (SPU)
2	2061-602/998-404	6300 (700)
3	2061-603/998-404	4050 (450)



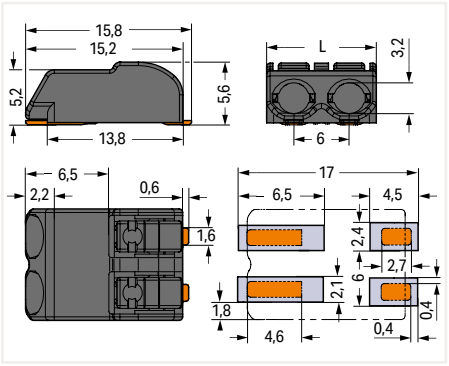
L = (pole no. x pin spacing) – 0.3 mm



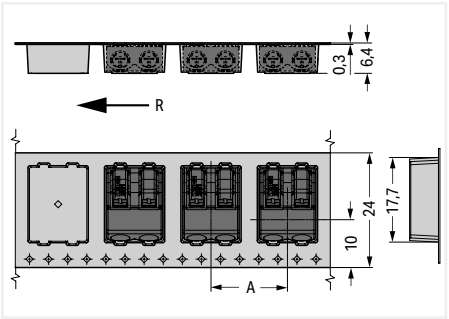
R = feed direction
A = 16 mm (2-pole)
A = 22 mm (3-pole)

Color: black

Pole No.	Item No.	PU (SPU)
2	2061-622/998-404	6300 (700)
3	2061-623/998-404	4050 (450)



L = (pole no. x pin spacing) – 0.3 mm



R = feed direction
A = 16 mm (2-pole)
A = 22 mm (3-pole)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB terminal block ▶ 2065 Series

PUSH WIRE® ▶ Pin spacing: 6 mm / 0.236 inch ▶ Actuation type: Push-in ▶ 0.75 mm² ▶ Color: silver-colored

- SMD PCB terminal block with PUSH WIRE® connection technology
- Push-in termination of solid conductors
- Height of just 2.7 mm
- Available in tape-and-reel packaging for automated assembly

3

Electrical Data			
Pin spacing	**6 mm / 0.236 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	-	4 kV	4 kV
Rated current	9 A	9 A	9 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	PUSH WIRE®
Strip length	7.5 … 9.5 mm / 0.3 … 0.37 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG

Material Data	
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +120 °C

The ratings are based on an example pin spacing of 6 mm. The layout must meet the requirements of the insulation coordination standard EN/IEC 60664-1 and applicable end product standards.

NOTE: Terminal block without insulation housing! Protection against accidental contact must be provided at voltages higher than low voltages (e.g., SELV/PELV) for the relevant application.

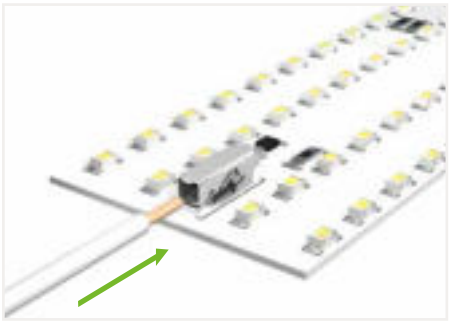
General accessories Page 333

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

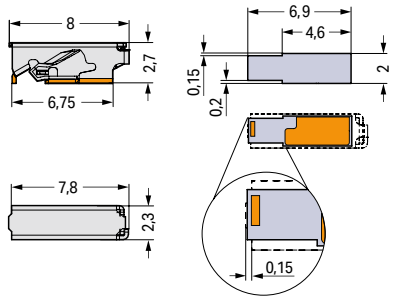
SMD PCB terminal block ▸ 2065 Series

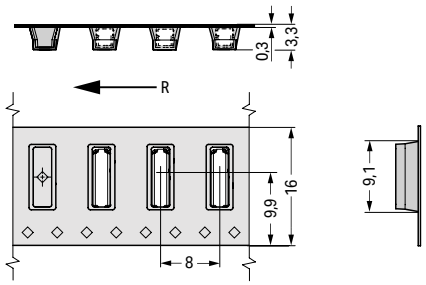
PUSH WIRE® ▸ Pin spacing: 6 mm / 0.236 inch ▸ Actuation type: Push-in ▸ 0.75 mm² ▸ Color: silver-colored



PUSH WIRE® version without push-buttons: Even more space savings when using exclusively solid conductors

Pole No.	Item No.	PU (SPU)
1	2065-101/998-403	31800 (2650)





R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB terminal block ▶ 2065 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 6.5 mm / 0.256 inch ▶ Actuation type: Push-button ▶ 0.75 mm² ▶ Color: silver-colored

- SMD PCB terminal block with push-button and Push-in CAGE CLAMP® connection technology
- Push-in termination of solid conductors
- Convenient termination/removal of fine-stranded conductors via push-button and operating tool
- Height of just 2.7 mm
- Available in tape-and-reel packaging for automated assembly
- Also available in a PUSH WIRE® variant without push-button (only for solid conductors)

3

Electrical Data			
Pin spacing	**6.5 mm / 0.256 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	-	320 V	630 V
Rated impulse voltage	-	4 kV	4 kV
Rated current	-	9 A	9 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7.5 … 9.5 mm / 0.3 … 0.37 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG

Material Data	
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +120 °C

The ratings are based on an example pin spacing of 6.5 mm.
The layout must meet the requirements of the insulation coordination standard EN/IEC 60664-1 and applicable end product standards.

NOTE: Terminal block without insulation housing! Protection against accidental contact must be provided at voltages higher than low voltages (e.g., SELV/PELV) for the relevant application.

General accessories	Page 333
Tool	Page 335

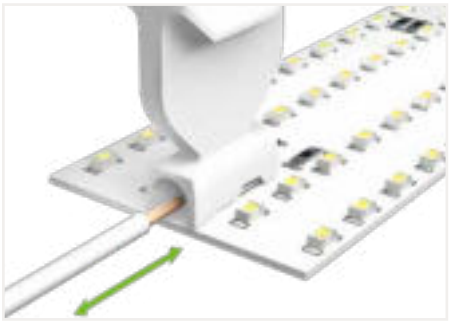
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

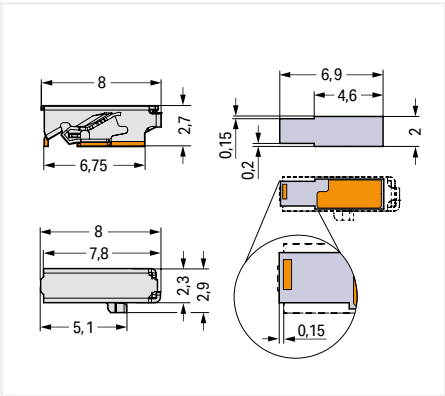
SMD PCB terminal block ▸ 2065 Series

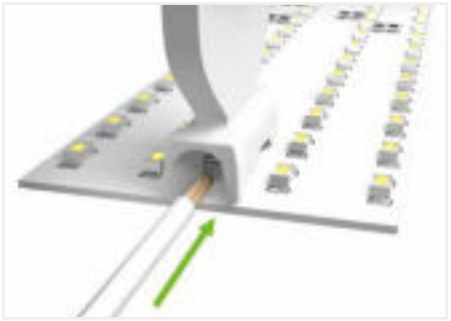
Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm / 0.256 inch ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Color: silver-colored

Pole No.	Item No.	PU (SPU)
1	2065-100/998-403	31800 (2650)

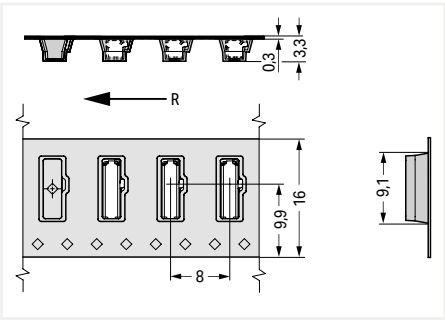


Push-in CAGE CLAMP® variant: Insert fine-stranded conductors and remove all conductor types via operating tool. Solid conductors can also be terminated by simply pushing them in.





The 2065-189 Operating Tool's funneled conductor entry securely guides all conductor types into the Push-in CAGE CLAMP®.

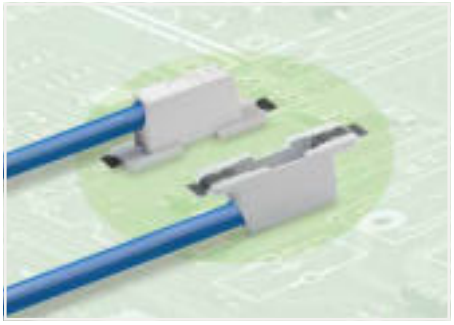


R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Through-Board SMD PCB Terminal Block ▸ 2070 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm / 0.256 inch ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white



- SMD PCB terminal block with Push-in CAGE CLAMP® connection for back-side wiring of LED modules
- Low profile of just 1.1 mm on the module's front side
- Push-in termination of solid conductors
- Insert fine-stranded conductors and remove all conductors via operating tool

3

Electrical Data				
Pin spacing	**6.5 mm / 0.256 inch**			
Electrical data for FR4 PCB type				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	9 A	9 A	9 A	
Approbations per	UL 1977			
Rated voltage	600 V			
Rated current	9 A			

Electrical data for metal-core PCBs				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	200 V	320 V	500 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	9 A	9 A	9 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8 … 10 mm / 0.31 … 0.39 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Tool Page 332

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

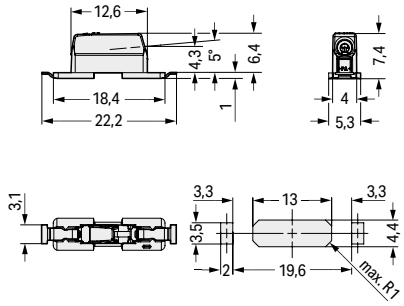
Through-Board SMD PCB Terminal Block ▸ 2070 Series

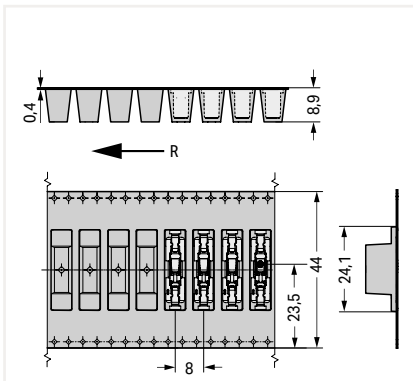
Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm / 0.256 inch ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white

without cover

2070-451/998-406

Pole No.	Item No.	PU (SPU)
1	2070-451/998-406	4770 (954)



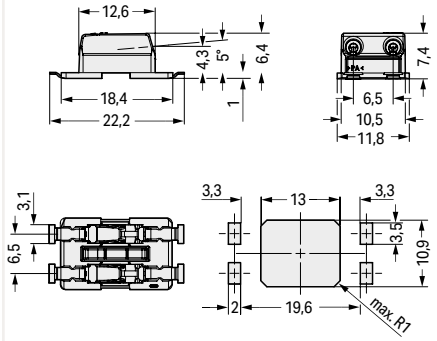


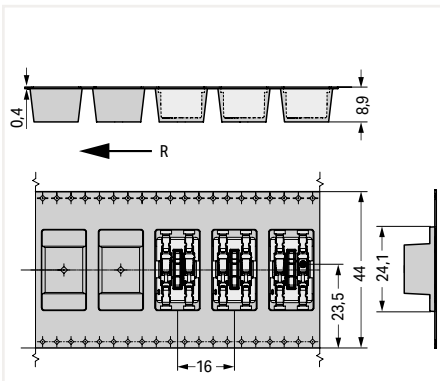
R = feed direction

without cover

2070-452/998-406

Pole No.	Item No.	PU (SPU)
2	2070-452/998-406	2385 (477)



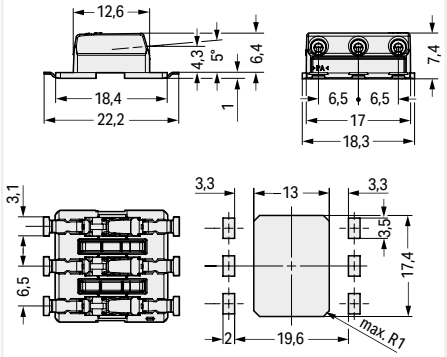


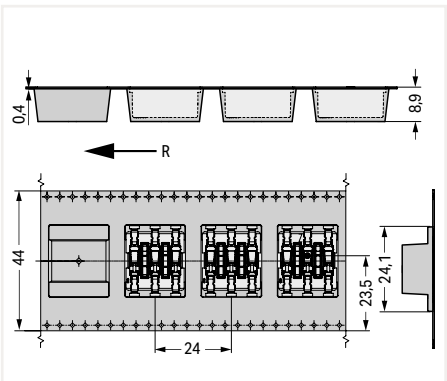
R = feed direction

without cover

2070-453/998-406

Pole No.	Item No.	PU (SPU)
3	2070-453/998-406	1590 (318)





R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Reel diameter of tape-and-reel packaging: 381 mm

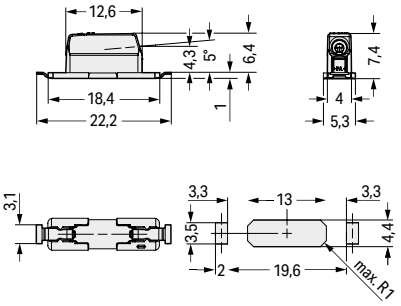
Through-Board SMD PCB Terminal Block ▸ 2070 Series

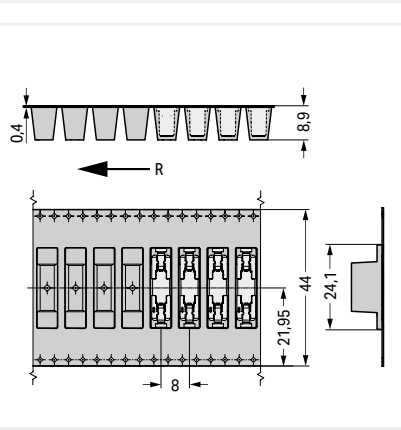
Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm / 0.256 inch ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white

3

with cover

Pole No.	Item No.	PU (SPU)
1	2070-461/998-406	4770 (954)



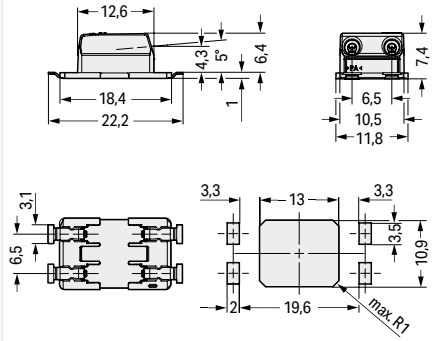


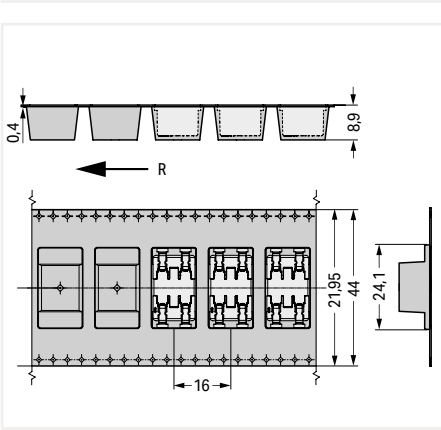
R = feed direction

with cover

Pole No.	Item No.	PU (SPU)
2	2070-462/998-406	2385 (477)

2070-462/998-406



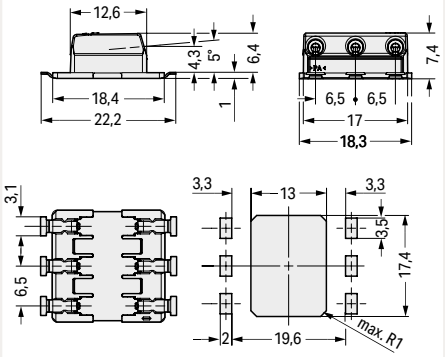


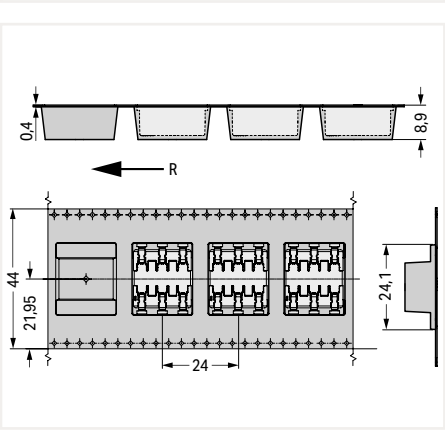
R = feed direction

with cover

Pole No.	Item No.	PU (SPU)
3	2070-463/998-406	1590 (318)

2070-463/998-406





R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Reel diameter of tape-and-reel packaging: 381 mm

Through-Board SMD PCB Terminal Block ▸ 2070 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm / 0.256 inch ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white

with cover ▸ Marking: +	with cover ▸ Marking: + -	with cover ▸ Marking: + - plain

2070-521/998-406

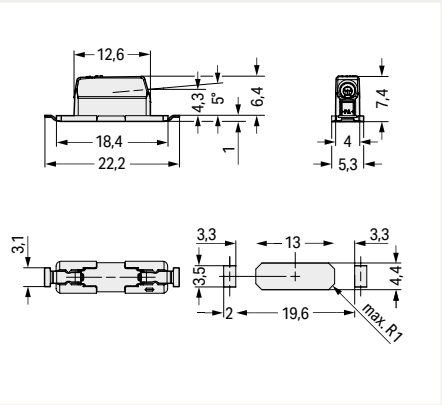
Pole No.	Item No.	PU (SPU)
1	2070-521/998-406	4770 (954)

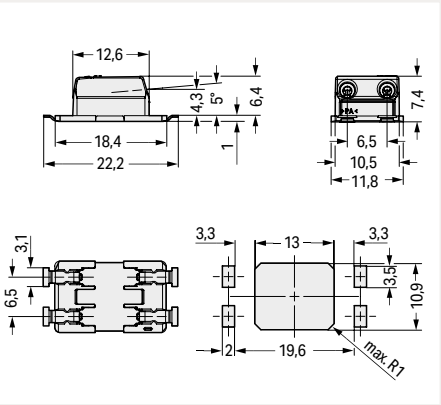
2070-522/998-406

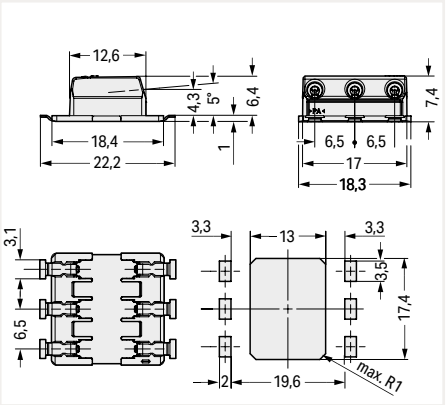
Pole No.	Item No.	PU (SPU)
2	2070-522/998-406	2385 (477)

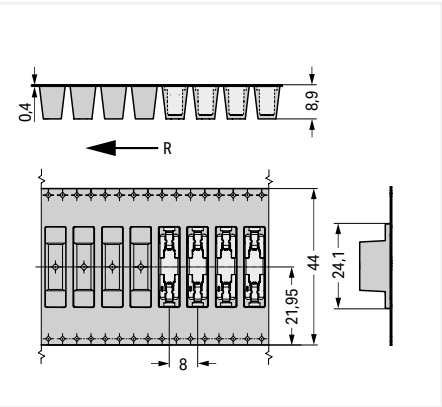
2070-523/998-406

Pole No.	Item No.	PU (SPU)
3	2070-523/998-406	1590 (318)

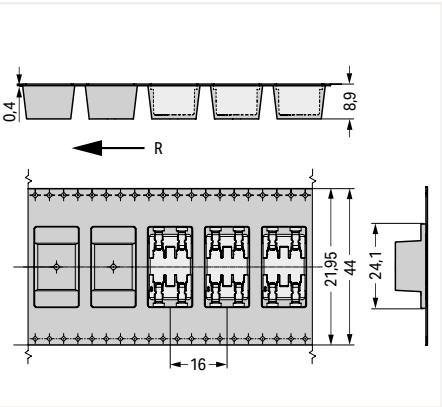




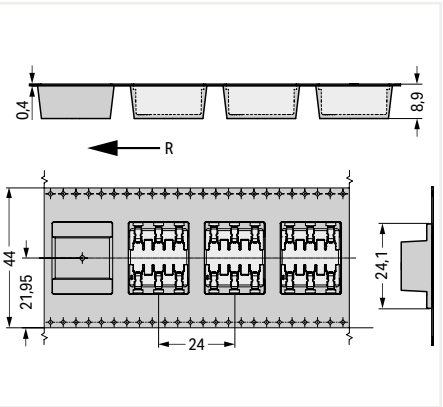




R = feed direction



R = feed direction



R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Reel diameter of tape-and-reel packaging: 381 mm

Through-Board SMD PCB Terminal Block ▸ 2070 Series

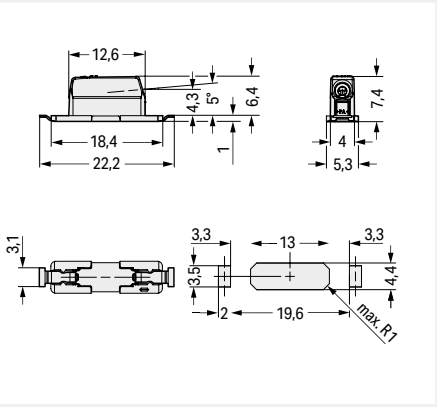
Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm / 0.256 inch ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white

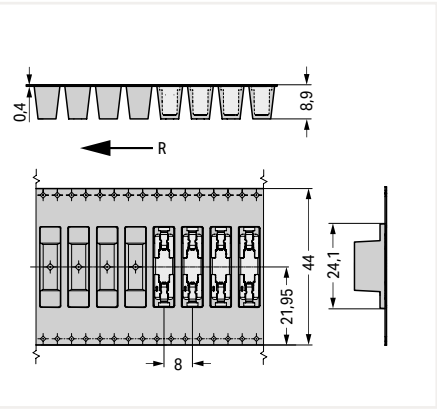
3

with cover ▸ Marking: -

2070-541/998-406

Pole No.	Item No.	PU (SPU)
1	2070-541/998-406	4770 (954)



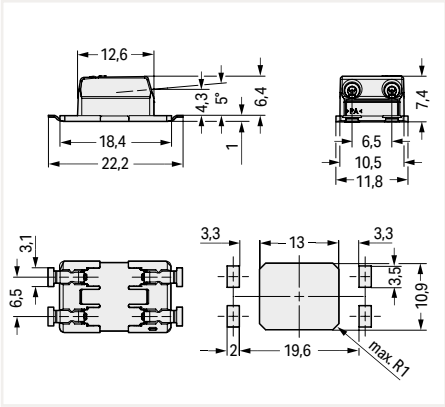


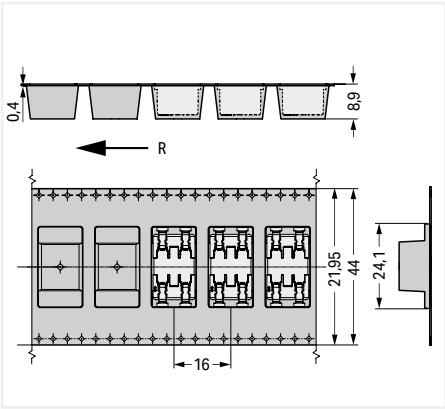
R = feed direction

with cover ▸ Marking: - +

2070-542/998-406

Pole No.	Item No.	PU (SPU)
2	2070-542/998-406	2385 (477)



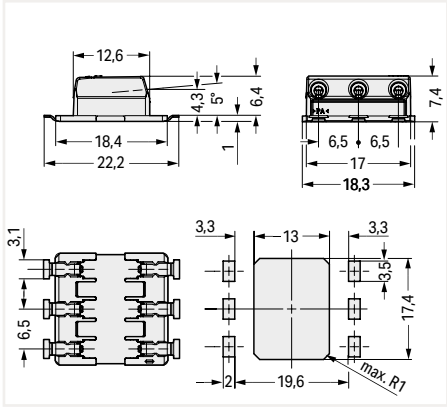


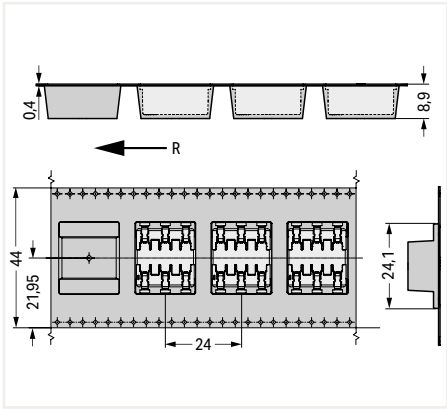
R = feed direction

with cover ▸ Marking: plain - +

2070-543/998-406

Pole No.	Item No.	PU (SPU)
3	2070-543/998-406	1590 (318)





R = feed direction

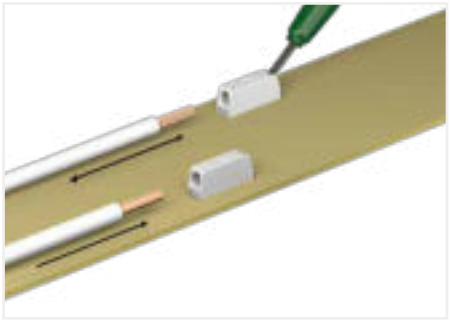
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

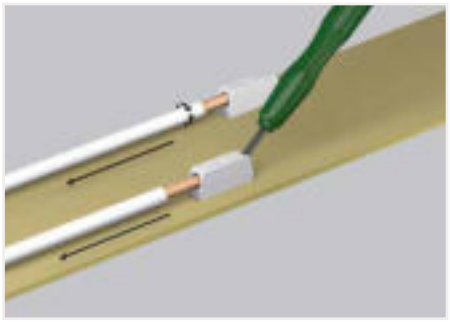
- Reel diameter of tape-and-reel packaging: 381 mm

Through-Board SMD PCB Terminal Block ▸ 2070 Series

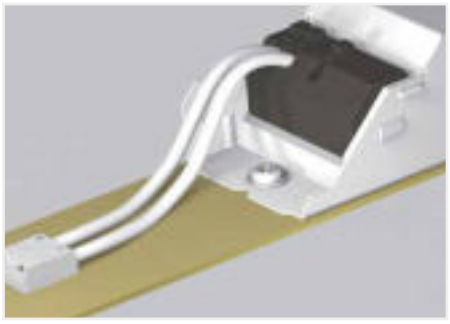
Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm / 0.256 inch ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white



Insert fine-stranded conductors and remove all conductor types via operating tool. Solid conductors can also be terminated by simply pushing them in.



Use an operating tool or simply “twist and pull” to remove solid conductors.



Shift wiring to the back of the LED module via 2070 Series SMD PCB Terminal Blocks.

Board-to-Board Link for SMD PCB Terminal Blocks; 0.5 mm²
Pin Spacing: 3 mm ▶ 2059 Series

- Board-to-board links simplify LED module assembly
- Easy push-in connection and disconnection

3

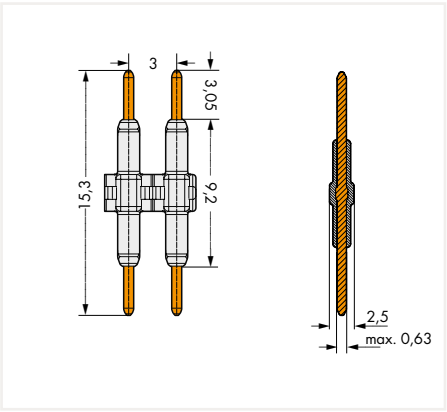
Electrical Data for Pin Spacing 3 mm / 0.118 inch				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	63 V	160 V	320 V	
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV	
Rated Current	3 A	3 A	3 A	

Material Data	
Material group	I
Insulation material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Limit temperature range	-60 … 105 °C
Contact material	Copper alloy
Contact Plating	Silver-plated

Board-to-Board Link for SMD PCB Terminal Blocks; 0.5 mm²
Pin Spacing: 3 mm ▸ 2059 Series

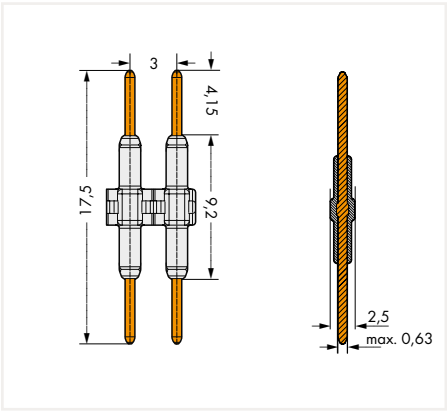
Pin length: 15.3 mm

Pole No.	Item No.	PU
1	2059-901	1500
2	2059-902	500
3	2059-903	375
4	2059-904	250



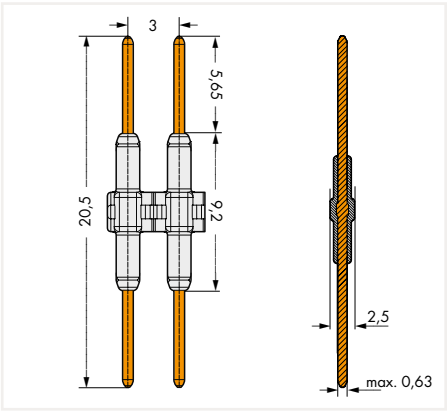
Pin length: 17.5 mm

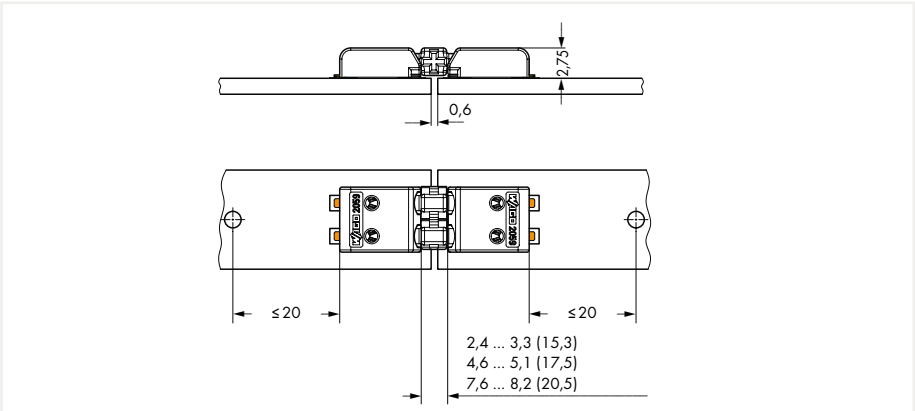
Pole No.	Item No.	PU
1	2059-901/018-000	1500
2	2059-902/018-000	500
3	2059-903/018-000	375
4	2059-904/018-000	250



Pin length: 20.5 mm

Pole No.	Item No.	PU
1	2059-901/021-000	1500
2	2059-902/021-000	500
3	2059-903/021-000	375
4	2059-904/021-000	250





Inserting a board-to-board link into the terminal block.

Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-toboard link. Disassembly: Pull PCBs apart (max. 10 mating cycles).

The PCBs must be secured.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Board-to-Board Links for SMD PCB Terminal Blocks with Push-Buttons; 0.75 mm²
2060 Series

- Board-to-board links simplify in-line assembly of LED modules
- Easy push-in connection and disconnection without push-button actuation

3

Electrical Data

	Pin Spacing: 4 mm (0.157 in)			Pin Spacing: 8 mm (0.314 in)		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Nominal voltage	63 V	160 V	320 V	400 V	630 V	1000 V
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV	6 kV	6 kV	6 kV
Rated current	9 A	9 A	9 A	9 A	9 A	9 A

Approvals per	UL 1977	UL 1977
Rated voltage (UL)	250 V	600 V
Rated current (UL)	9 A	9 A

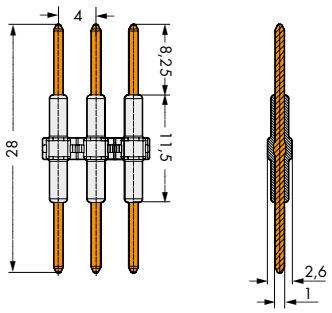
Material Data

Material group	I
Insulation material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Limit temperature range	-60 … 105 °C
Contact material	Copper alloy
Contact plating	Silver-plated

Board-to-Board Links for SMD PCB Terminal Blocks with Push-Buttons; 0.75 mm²
2060 Series

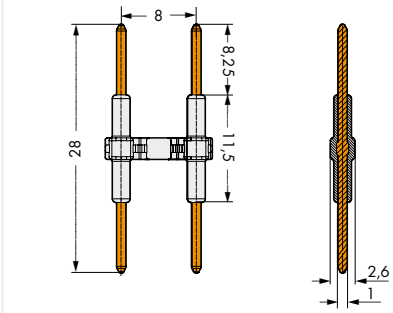
Pin Spacing: 4 mm (0.157 in)

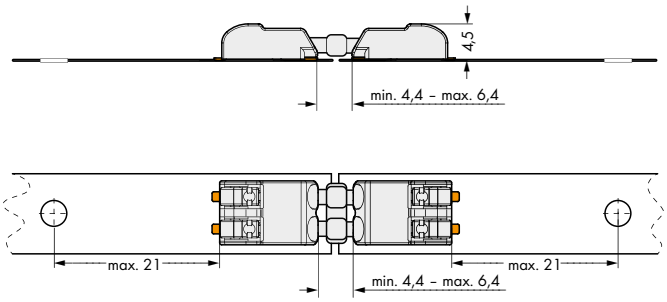
Pole No.	Item No.	PU
1	2060-951/028-000	1500
2	2060-952/028-000	500
3	2060-953/028-000	375
4	2060-954/028-000	250



Pin Spacing: 8 mm (0.314 in)

Pole No.	Item No.	PU
2	2060-962/028-000	375





Inserting a board-to-board link into the terminal block.

Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-to-board link. Disassembly: Pull PCBs apart (max. 10 mating cycles).

The PCBs must be secured.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Board-to-Board Link for SMD PCB Terminal Blocks with Push-Buttons

1.5 mm² ▶ Pin Spacing: 6 mm / 0.236 inch ▶ 2061 Series

- Board-to-board links simplify LED module assembly
- Easy push-in connection and disconnection without push-button actuation

3

Electrical Data for Pin Spacing 6 mm / 0.236 inch				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Nominal voltage	250 V	320 V	630 V	
Rated surge voltage	4 kV	4 kV	4 kV	
Rated current	9 A	9 A	9 A	

Material Data	
Material group	I
Insulation material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Limit temperature range	-60 … 105 °C
Contact material	Copper alloy
Contact Plating	Silver-plated

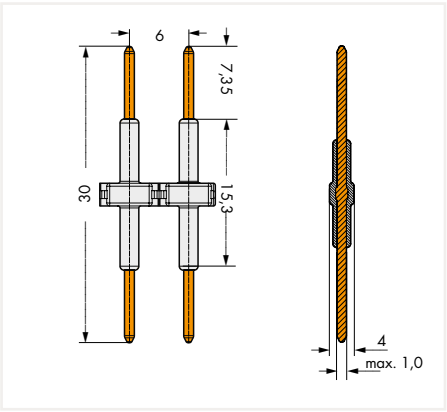
Board-to-Board Link for SMD PCB Terminal Blocks with Push-Buttons

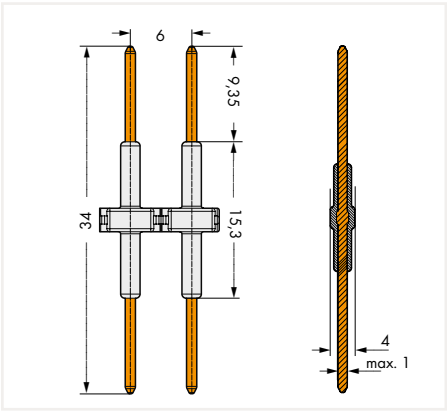
1.5 mm² ▶ Pin Spacing: 6 mm ▶ 2061 Series

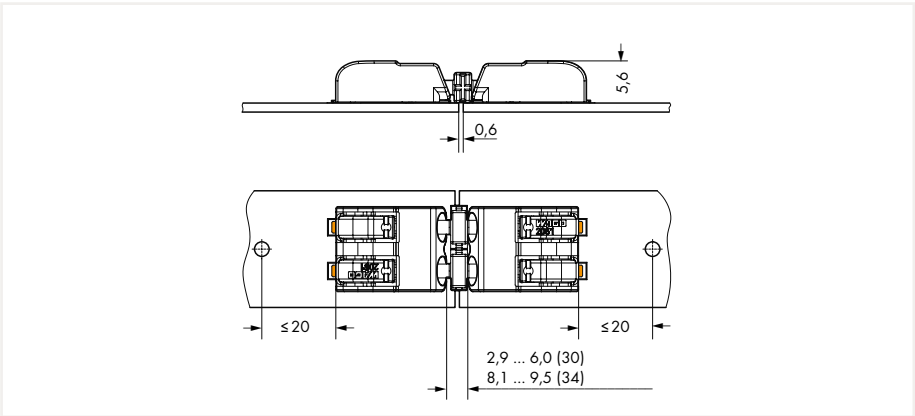
Pin length: 30 mm	Pin length: 34 mm

Pole No.	Item No.	PU
1	2061-901	700
2	2061-902	300
3	2061-903	200
4	2061-904	100

Pole No.	Item No.	PU
1	2061-901/034-000	700
2	2061-902/034-000	300
3	2061-903/034-000	200
4	2061-904/034-000	100







Inserting a board-to-board link into the terminal block.

Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-toboard link.
Disassembly: Pull PCBs apart
(max. 10 mating cycles).

The PCBs must be secured.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Board-to-Board Link for SMD PCB terminal blocks ▶ 2065 Series

- Board-to-board links simplify LED module assembly
- Space-saving connection of PCBs

3

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated surge voltage	4 kV	4 kV	4 kV	
Rated Current	9 A	9 A	9 A	

Material Data	
Contact material	Copper alloy
Contact Plating	Silver-plated

Environmental Requirements	
Limit temperature range	-60 … +120 °C

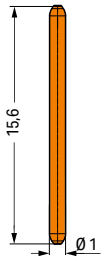
The layout must meet the requirements of the insulation coordination standard EN/IEC 60664-1 and applicable end product standards.

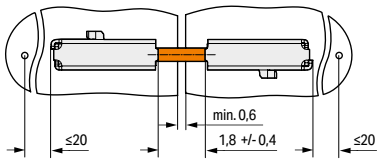
NOTE: Terminal block without insulation housing! Protection against accidental contact must be provided at voltages higher than low voltages(e.g., SELV/PELV) for the relevant application.

Board-to-Board Link for SMD PCB terminal blocks ▸ 2065 Series

Pin length: 15.6 mm

	Item No.	PU
	2065-131	1500

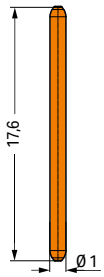


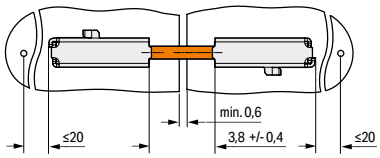


Inserting board-to-board links into the terminal blocks.

Pin length: 17.6 mm

	Item No.	PU
	2065-133	1500





Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-toboard link. Disassembly: Support disconnection by opening the terminals with operating tool (max. 5 mating cycles).

The PCBs must be secured.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Operating Tools

Operating tool		
Series	**Item No.**	PU
2059	**206-859**	5
2060	**206-860**	5
2061	**206-861**	5

Operating tool		
Series	**Item No.**	PU
2070	**2070-400**	1

Operating tool; insulated		
Series	**Item No.**	PU (SPU)
2059	**2059-189**	600 (50)
2060	**2060-189**	300 (50)
2061	**2061-189**	300 (50)

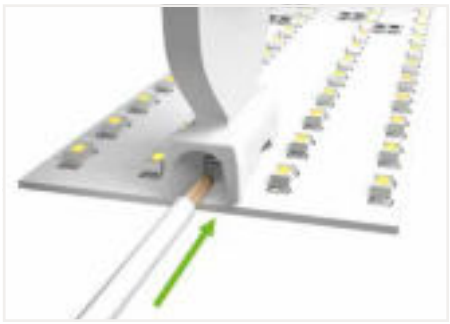
Inserting/removing fine-stranded conductors by lightly pressing on a push-button.

Insert fine-stranded conductors – and remove conductors – via operating tool. Solid conductors can

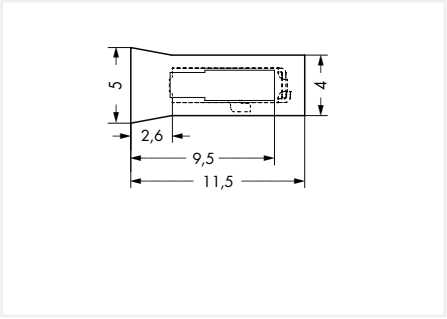
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Operating Tools

Operating tool; insulated		
Series	**Item No.**	PU (SPU)
2065	**2065-189**	600 (50)

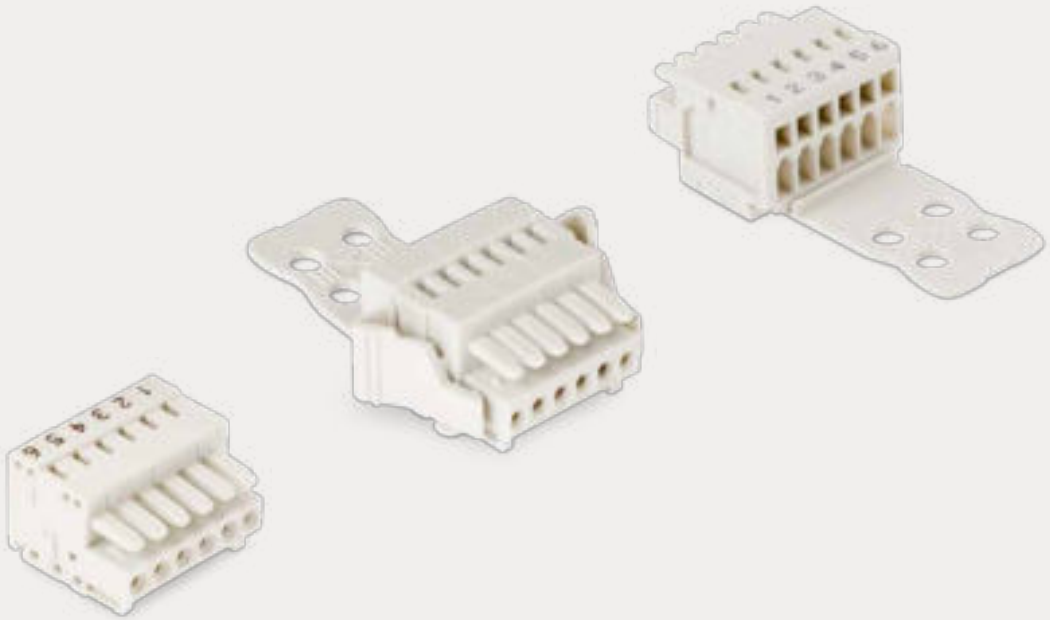


The operating tool's funneled conductor entry accurately guides the conductor into the terminal block



Required area for operating tool

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



WAGO *MULTI CONNECTION SYSTEM* MICRO

WAGO *MULTI CONNECTION SYSTEM* MICRO
Pin Spacing: 2.5 mm / Nominal Cross-Section: 0.5 mm²

		Page
	MCS MICRO 1-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	340
	MCS MICRO 1-Conductor Male Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	342
	MCS MICRO THT Male Headers THR Male Headers	344 348
	MCS MICRO Accessories Accessories and Tools	352 861

4

MCS MICRO
Description and Installation

Male headers and female connectors are 100 % protected against mismating.
Only mating halves with the same pole number can be connected.

Coding a male header – fitting coding key(s).

Coding a female connector – removing coding finger(s).

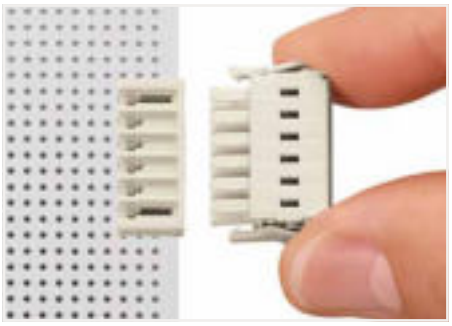
Wire-to-wire connection of single conductors

THR male headers for reflow soldering in SMT applications

Wire-to-wire connection of multi-core cables
Plug-in connection using strain relief plates and locking levers

Tape-and-reel packaging for THR male headers

Locking levers prevent accidental disconnection.

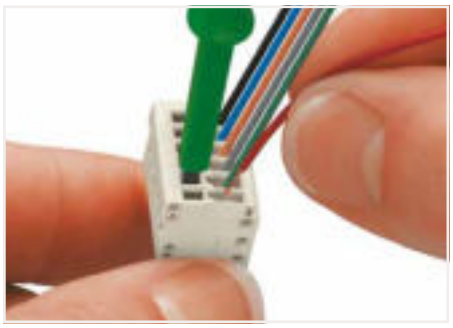


Locking levers prevent accidental disconnection.

CAGE CLAMP®

MCS MICRO
Description and Installation

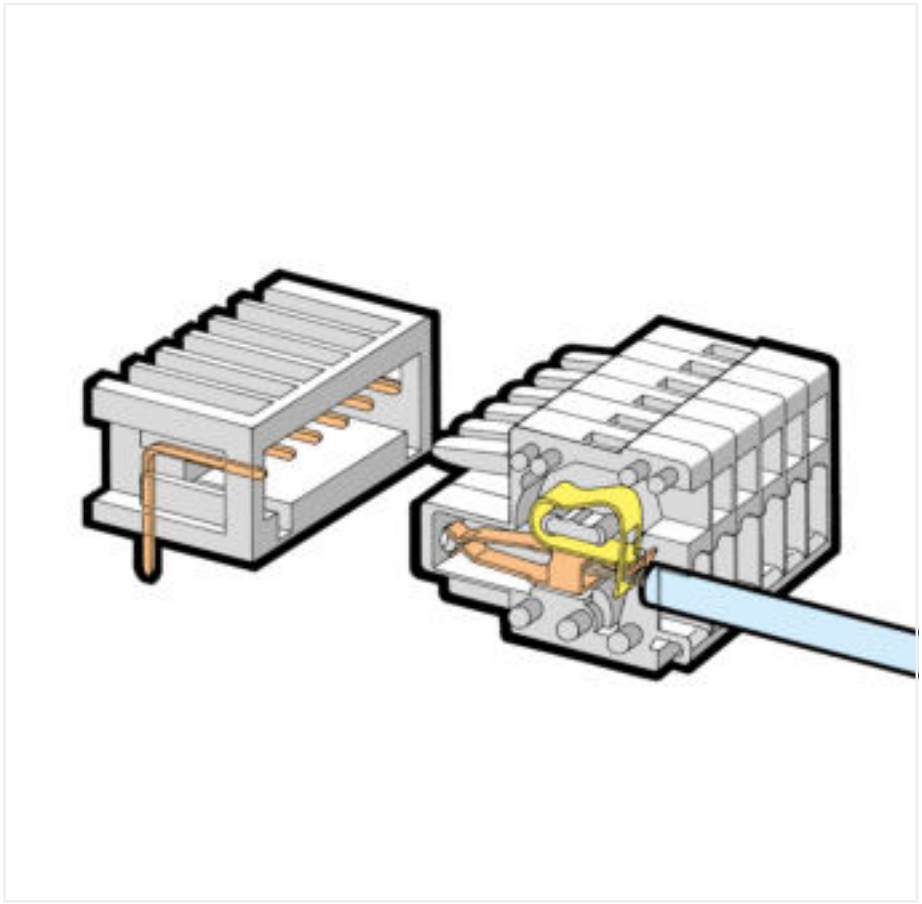
Inserting a conductor via (2.5 x 0.4) mm screwdriver. Operation is performed perpendicular to conductor entry.

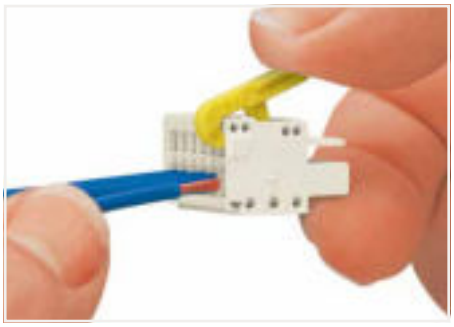


Inserting a conductor via screwdriver (233-335) – CAGE CLAMP® actuation parallel to conductor entry.

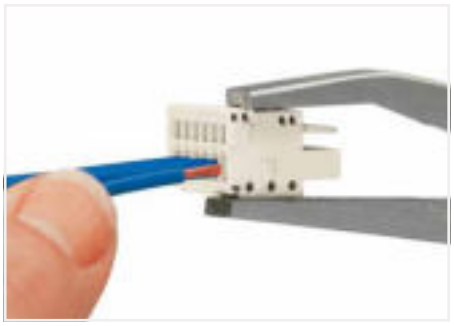
Inserting a conductor via 233-331 Operating Tool. Operation is performed parallel to conductor entry.

4





Marking via self-adhesive strips or factory direct marking



Inserting a conductor via 210-251 Operating Tool.

Marking via self-adhesive strips or factory direct marking

Strain relief plates for factory or in-the-field assembly.

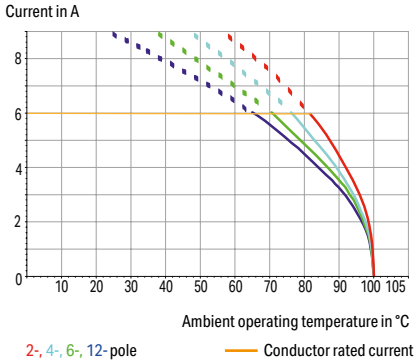
Testing via 1 mm Ø test pin (735-500) – touch contact.

1-conductor female plug ▸ *MCS* MICRO ▸ 733 Series

Pin spacing: 2.5 mm / 0.098 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates for factory and field assembly
- 100% protected against mismating
- Coding option available

4



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	100 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	6 A	6 A	6 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.34 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Marking	Page 864
Strain relief	Page 353
Test and measurement	Page 886
Tool	Page 352, 870
Direct marking	Page 354

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MICRO ▸ 733 Series

Pin spacing: 2.5 mm / 0.098 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

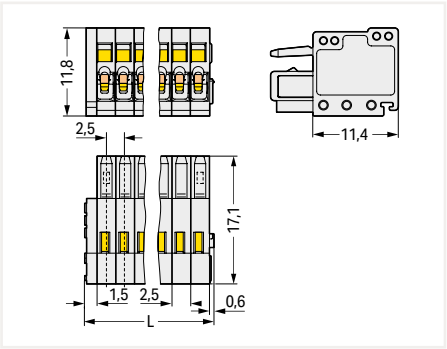
	Locking of plug-in connection: Locking lever

733-106

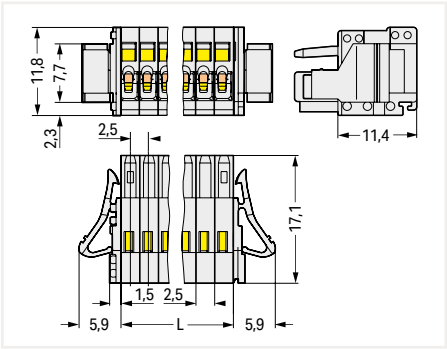
733-106/037-000

Pole No.	Item No.	PU
2	733-102	200
3	733-103	200
4	733-104	200
5	733-105	100
6	733-106	100
7	733-107	100
8	733-108	100
9	733-109	100
10	733-110	100
12	733-112	50

Pole No.	Item No.	PU
2	733-102/037-000	100
3	733-103/037-000	100
4	733-104/037-000	100
5	733-105/037-000	100
6	733-106/037-000	100
7	733-107/037-000	50
8	733-108/037-000	50
9	733-109/037-000	50
10	733-110/037-000	50
12	733-112/037-000	50



L = (pole no. x pin spacing) + 2.1 mm



L = pole no. x pin spacing

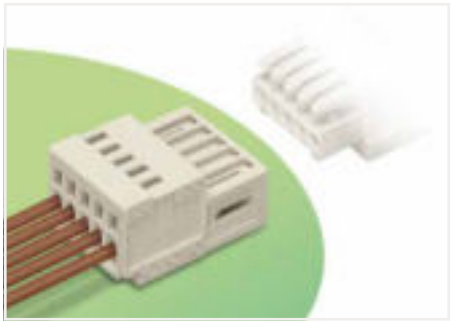
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MICRO ▸ 733 Series

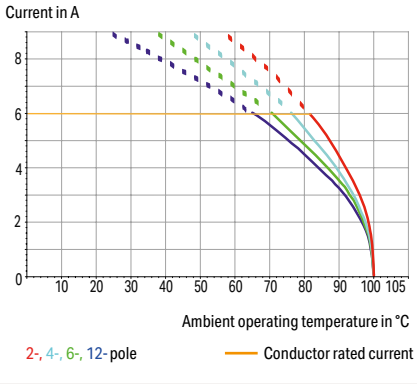
Pin spacing: 2.5 mm / 0.098 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire connections
- 100% protected against mismating
- Coding option available

4

Derating Curve
1-conductor female connector (733-102) with THT male header (733-202)
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	100 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	6 A	6 A	6 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.34 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.34 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 352
Ferrule	Page 879
Strain relief	Page 353
Test and measurement	Page 886
Tool	Page 352, 870
Direct marking	Page 354

See technical section for further information

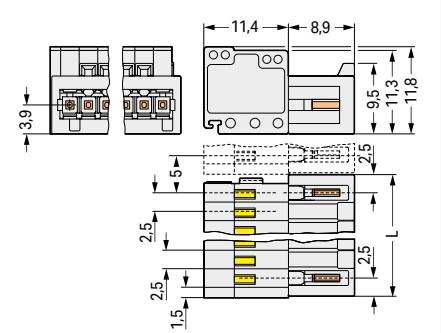
For approvals and corresponding ratings, visit www.wago.com

1-conductor male connector ▸ *MCS* MICRO ▸ 733 Series

Pin spacing: 2.5 mm / 0.098 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

733-206

Pole No.	Item No.	PU
2	733-202	200
3	733-203	200
4	733-204	200
5	733-205	100
6	733-206	100
7	733-207	100
8	733-208	100
9	733-209	100
10	733-210	100
12	733-212	50



L = (pole no. + 1) x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

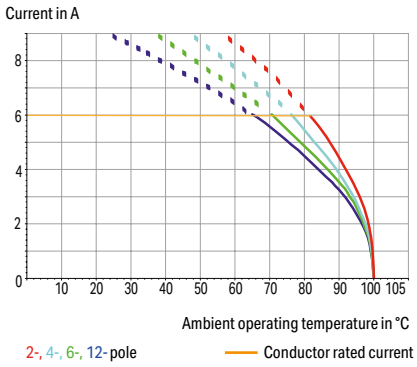
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MICRO ▸ 733 Series
Pin spacing: 2.5 mm / 0.098 inch ▸ Color: light gray

- 100% protected against mismating; only mating halves with the same pole number can be connected
- Coding option available

4

Derating Curve
1-conductor female connector (733-102) with
THT male header (733-362)
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	80 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	6 A	6 A	6 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	0.8 x 0.8 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 352

See technical section for further information

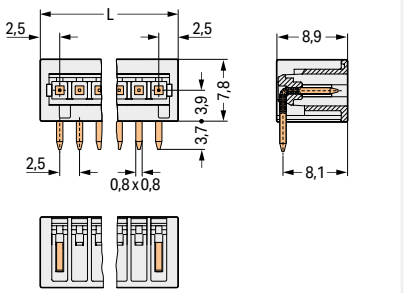
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MICRO ▸ 733 Series
Pin spacing: 2.5 mm / 0.098 inch ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.7 mm

733-366

Pole No.	Item No.	PU
2	733-362	200
3	733-363	200
4	733-364	200
5	733-365	200
6	733-366	200
7	733-367	200
8	733-368	200
9	733-369	200
12	733-372	100

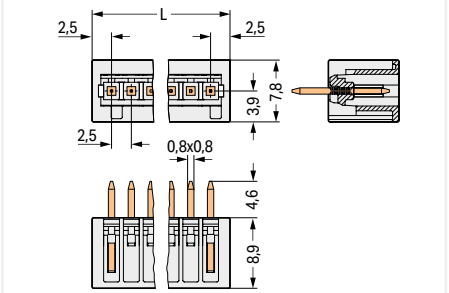


L = (pole no. + 1) x pin spacing

Mating direction to the PCB: 90 ° ▸ Solder pin length: 4.6 mm

733-336

Pole No.	Item No.	PU
2	733-332	200
3	733-333	200
4	733-334	200
5	733-335	200
6	733-336	200
7	733-337	200
8	733-338	200
9	733-339	200
10	733-340	200
12	733-342	100



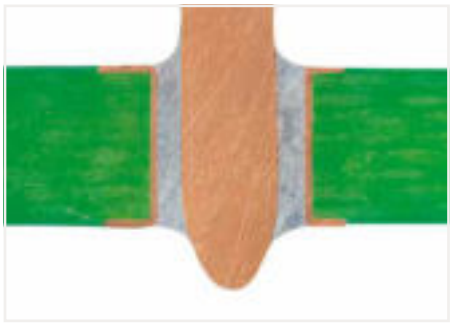
L = (pole no. + 1) x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THR (Through-Hole Reflow) Soldering Process

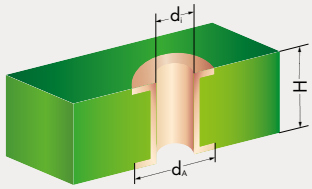
By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.



Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.

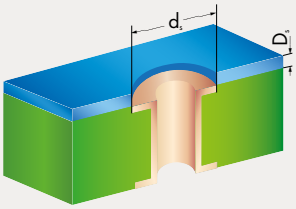
4

1



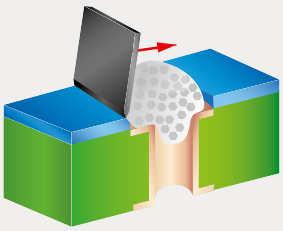
Metal-plated PCB bore hole

2



SMD positioning pattern

3



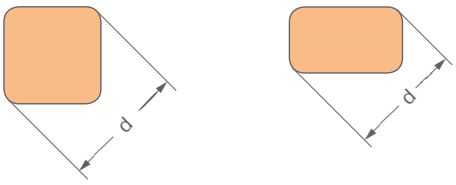
Solder paste application

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1.1^{+0.1}$	1.9	< 2	1.8	150	0.9	2.8
231 (1 x 1 mm)	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
231 (1.2 x 1.2 mm)	$1.7^{+0.1}$	2.8	< 2	2.7	150	1.5	2.4
236	$1.1^{+0.1}$	2.2	< 2	2.1	150	0.9	3.6
250	$1.1^{+0.1}$	2.0	< 2	1.9	150	0.9	2.4
713	$1.0^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
733	$1.2^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
734	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
2060	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	2.4
2061	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	1.5 / 2.4
2086	$1.0^{+0.1}$	2.0	< 2	1.9	150	0.85	1.5 / 2.4

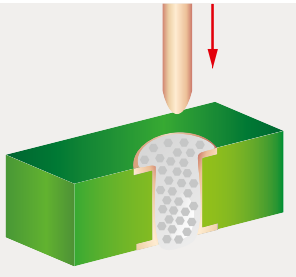
d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Solder pin form

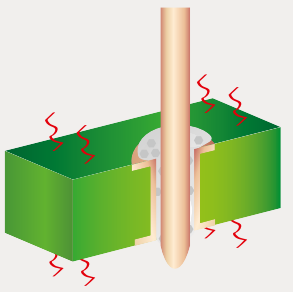


4



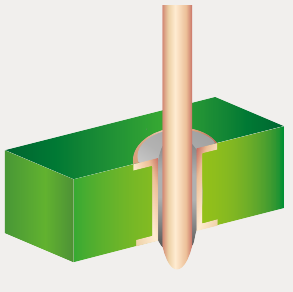
Component assembly, automatic/by hand

5



Reflow soldering process

6



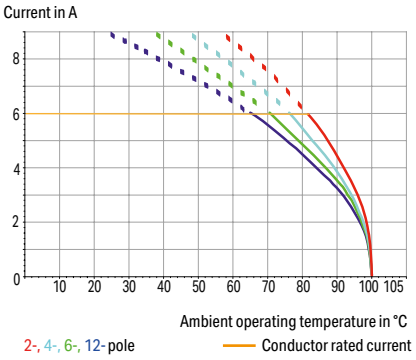
THR soldering joint

THR male header ▸ *MCS* MICRO ▸ 733 Series
Pin spacing: 2.5 mm / 0.098 inch ▸ Color: black

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Optimal thermal penetration via pin enclosure design provides lower soldering temperatures
- 100% protected against mismating
- Coding option available

4

Derating Curve
1-conductor female connector (733-102) with
THR male header (733-332/105-604)
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	80 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	6 A	6 A	6 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	0.8 x 0.8 mm
Plated through-hole diameter (THR)	1.2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering	Page 346
Coding	Page 352

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▸ *MCS* MICRO ▸ 733 Series
Pin spacing: 2.5 mm / 0.098 inch ▸ Color: black

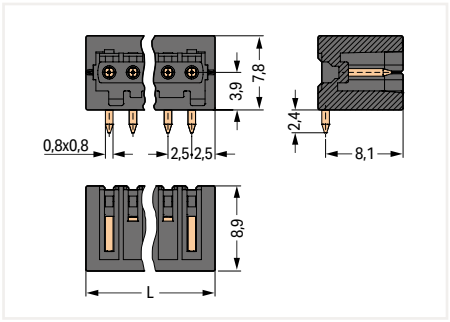
Mating direction to the PCB: 0 °

Suitable for automated assembly

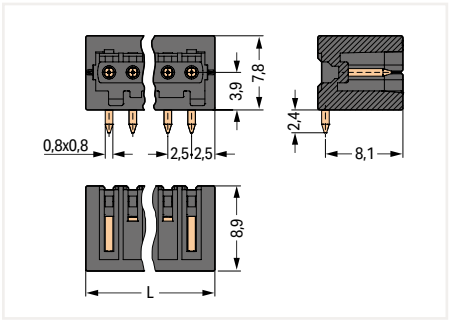
733-368/105-604

Pole No.	Item No.	PU
2	733-362/105-604	200
3	733-363/105-604	200
4	733-364/105-604	200
5	733-365/105-604	200
6	733-366/105-604	200
7	733-367/105-604	200
9	733-369/105-604	200
10	733-370/105-604	200
12	733-372/105-604	100

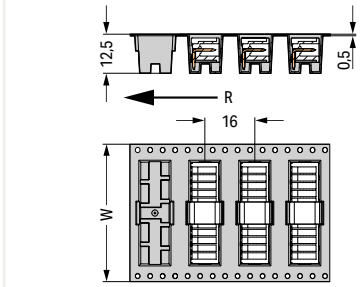
Pole No.	Item No.	PU
2	733-362/105-604/997-406	300
3	733-363/105-604/997-406	300
4	733-364/105-604/997-406	300
5	733-365/105-604/997-406	300
6	733-366/105-604/997-406	300
7	733-367/105-604/997-406	300
8	733-368/105-604/997-406	300
9	733-369/105-604/997-406	300
10	733-370/105-604/997-406	300
12	733-372/105-604/997-406	300



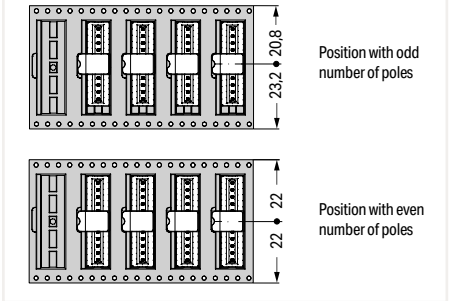
L = (pole no. + 1) x pin spacing



L = (pole no. + 1) x pin spacing



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MICRO ▸ 733 Series
Pin spacing: 2.5 mm / 0.098 inch ▸ Color: black

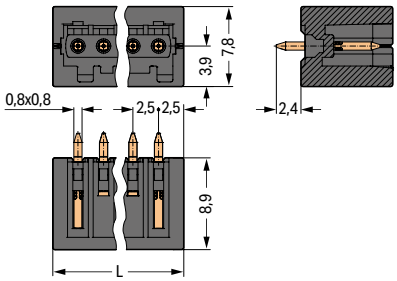
Mating direction to the PCB: 90 °

Suitable for automated assembly

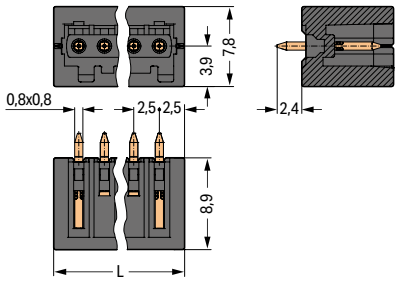
4

Pole No.	Item No.	PU
2	733-332/105-604	200
3	733-333/105-604	200
4	733-334/105-604	200
5	733-335/105-604	200
6	733-336/105-604	200
7	733-337/105-604	200
8	733-338/105-604	200
9	733-339/105-604	200
10	733-340/105-604	200
12	733-342/105-604	100

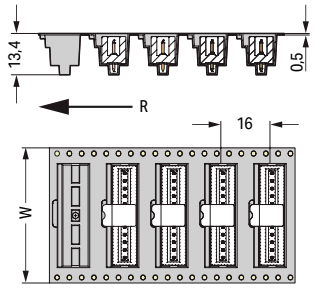
Pole No.	Item No.	PU
2	733-332/105-604/997-446	290
3	733-333/105-604/997-446	290
4	733-334/105-604/997-446	290
5	733-335/105-604/997-446	290
6	733-336/105-604/997-446	290
7	733-337/105-604/997-446	290
8	733-338/105-604/997-446	290
9	733-339/105-604/997-446	290
10	733-340/105-604/997-446	290
12	733-342/105-604/997-446	290



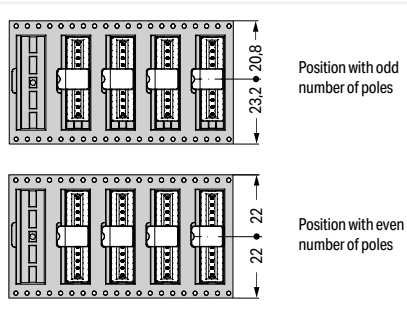
L = (pole no. + 1) x pin spacing



L = (pole no. + 1) x pin spacing



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

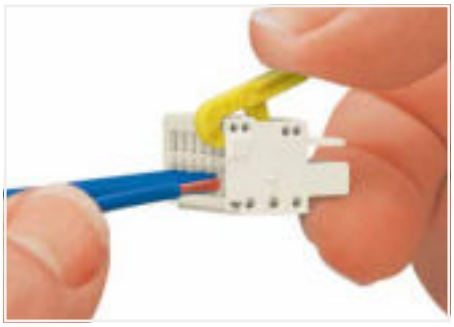
Operating Tools and Coding Keys
MCS MICRO

4

Operating lever for male and female connectors with CAGE CLAMP® connection; 2.5 mm pin spacing		
Color	Item No.	PU (SPU)
natural	733-130	100 (25)
yellow	733-191	100 (25)

Coding key for male headers		
Color	Item No.	PU (SPU)
white	733-330	100
lack*	733-331	100

*suitable for THR soldering



Inserting a conductor via operating lever.

Coding a male header via snap-on coding keys.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Strain Relief Plates
MCS MICRO

Strain relief plate for in-the-field assembly

4

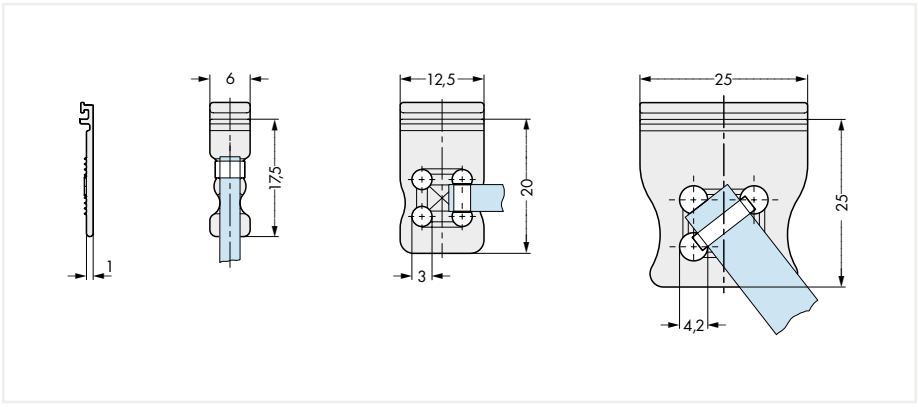
Strain relief plate, for in-the-field assembly; for male and female connectors with CAGE CLAMP® connection; light gray			
Pole No.	Width	**Item No.**	PU (SPU)
2 … 4	6 mm	**734-127**	100 (25)
5 … 9	12.5 mm	**734-128**	100 (25)
10 … 12	25 mm	**734-129**	100 (25)

Strain relief plate; pre-assembled; for male and female connectors with CAGE CLAMP® connection; light gray		
Pole No.	Width	**Item No. Suffix ***
2 … 4	6 mm	**. . . /032-000**
5 … 9	12.5 mm	**. . . /033-000**
10 … 12	25 mm	**. . . /034-000**

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

Strain relief plate; for factory assembly;
1-conductor female connector;
2.5 mm pin spacing; light gray; 2-pole,
with strain relief plate (733-102/032-000)

Strain relief plate; for factory assembly;
1-conductor female connector;
2.5 mm pin spacing; light gray; 12-pole;
with strain relief plate (733-112/034-000)



The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Direct Marking
MCS MICRO

4

The pole numbers of male and female connectors for CAGE CLAMP® termination can be marked via factory direct marking.

Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other customized marking options are available upon request.

Direct marking is not suitable for MCS PCB male headers. WAGO recommends pole marking on the PCB for these headers.

Direct marking of female connectors, perpendicular to conductor entry, 1 ... pole no., item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-cond. female connector,5-pole, light gray	**733-105/000-047**
1-cond. female connector, with locking levers, 5-pole, light gray	**733-105/037-047**
1-cond. female connector, with strain relief plate, 5-pole, light gray	**733-105/033-047**
1-cond. female connector, with locking levers and strain relief plate, 5-pole, light gray	**733-105/037-047/033-000**

Direct marking of male connectors, perpendicular to conductor entry, pole no. ... 1, item no. suffix.: /. . . - 044	
Version	**Item No. Example**
1-cond. male connector, 5-pole, light gray	**733-205/000-044**
1-cond. male connector, with strain relief plate, 5-pole, light gray	**733-205/033-044**

Direct marking of female connectors, parallel to conductor entry, 1 ... pole no., item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-cond. female connector, 5-pole, light gray	**733-105/000-9037**
1-cond. female connector, with locking levers, 5-pole, light gray	**733-105/037-9037**
1-cond. female connector, with strain relief plate, 5-pole, light gray	**733-105/033-9037**
1-cond. female connector, with locking levers and strain relief plate, 5-pole, light gray	**733-105/037-9037/033-000**

Direct marking of male connectors, parallel to conductor entry, pole no. ... 1, item no. suffix.: /. . . - 9034	
Version	**Item No. Example**
1-cond. male connector, 5-pole, light gray	**733-205/000-9034**
1-cond. male connector, with strain relief plate, 5-pole, light gray	**733-205/033-9034**

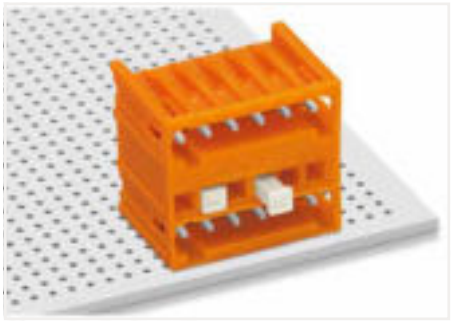
WAGO *MULTI CONNECTION SYSTEM*
MINI

WAGO *MULTI CONNECTION SYSTEM* MINI
Pin Spacing: 3.5 mm, 3.81 mm ▶ 1.5 mm²

		Pin Spacing	Page
	MCS MINI 1-Conductor Female Connectors ▶ Actuation type: Operating tool ▶ CAGE CLAMP®	3.5 mm 3.81 mm	360 390
	MCS MINI 1-Conductor Female Connectors ▶ Actuation type: Push-button▶ CAGE CLAMP®	3.5 mm 3.81 mm	364 394
	MCS MINI 1-Conductor Male Connectors ▶ Actuation type: Operating tool ▶ CAGE CLAMP®	3.5 mm 3.81 mm	368 398
	MCS MINI 2-Conductor Combi Strips ▶ Actuation type: Operating tool ▶ CAGE CLAMP®	3.5 mm	372
	MCS MINI THT Female Headers	3.5 mm 3.81 mm	376 402
	MCS MINI THT Male Headers THR Male Headers	3.5 mm 3.81 mm 3.5 mm 3.81 mm	380 406 386 410
	MCS MINI Accessories Accessories and Tools		414 861

5

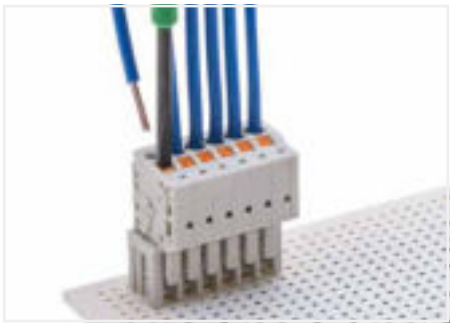
MCS MINI
Description and Installation



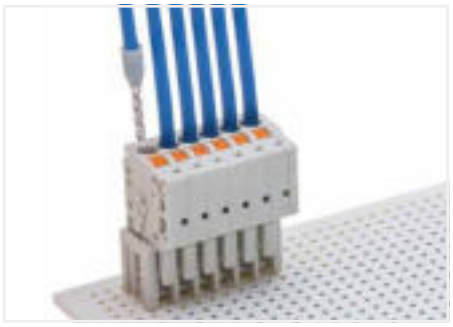
Coding a THT double-deck male header – lower level.

Coding a male header – fitting coding key(s).

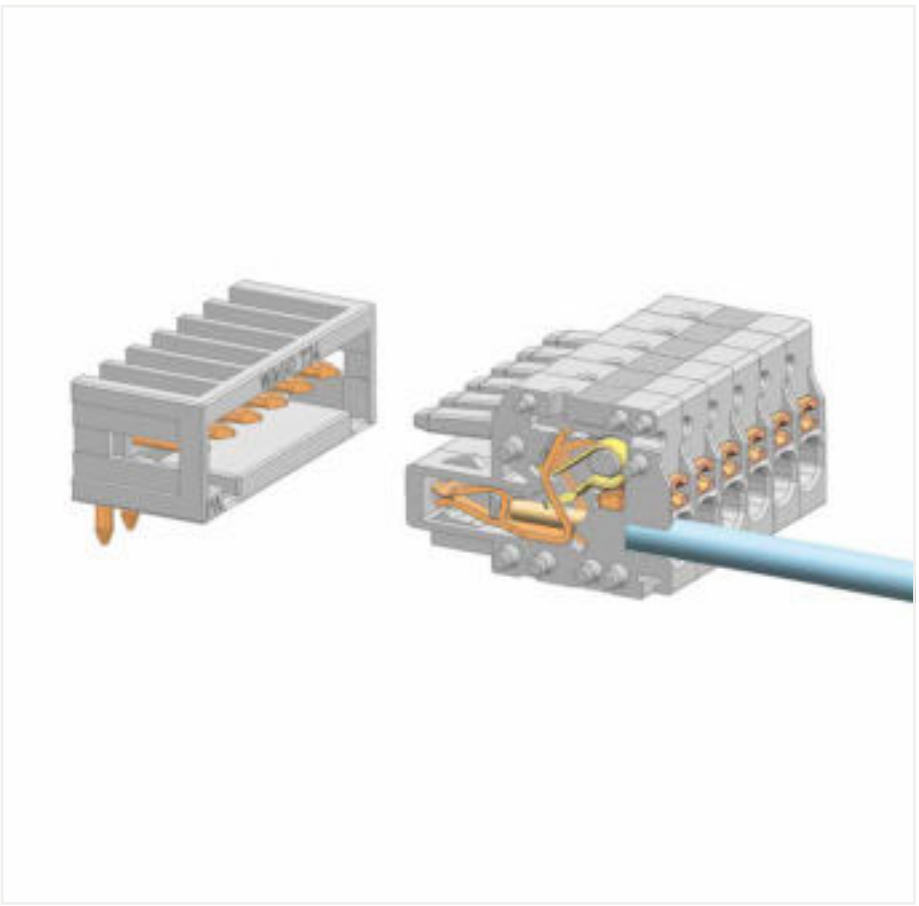
Coding a female connector – removing coding finger(s).



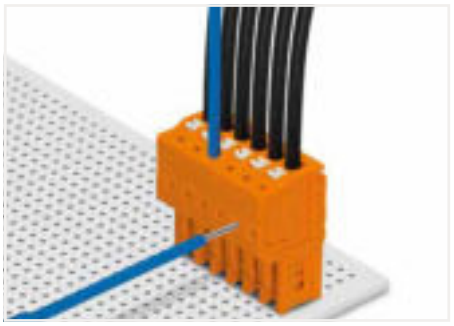
Inserting a fine stranded conductor into Push-in CAGE CLAMP® unit via push-button.



Solid and ferruled conductors are terminated by simply pushing them into unit.



Pin spacing: 3.5 mm and 3.81 mm, Push-in CAGE CLAMP®



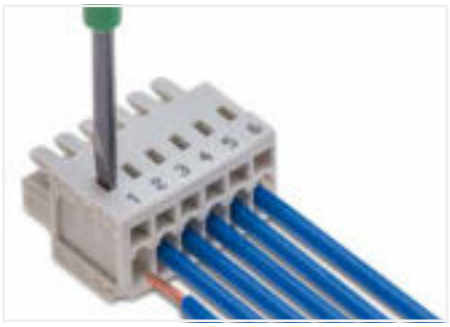
Testing via 1 mm Ø test pin (735-500).
Push-in CAGE CLAMP® termination – parallel to conductor entry

Labeling via direct marking or self-adhesive strips.

Strain relief housing for 734 Series Male and Female Connectors with CAGE CLAMP® connection.

CAGE CLAMP®

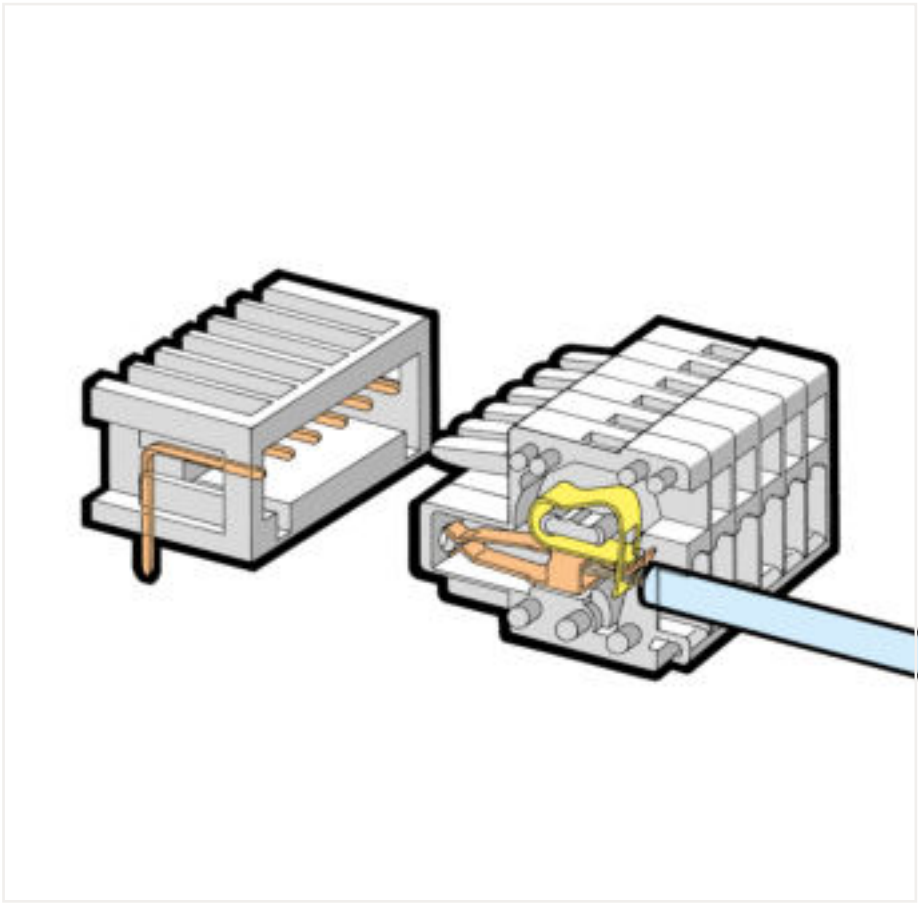
MCS MINI
Description and Installation



Inserting a conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.

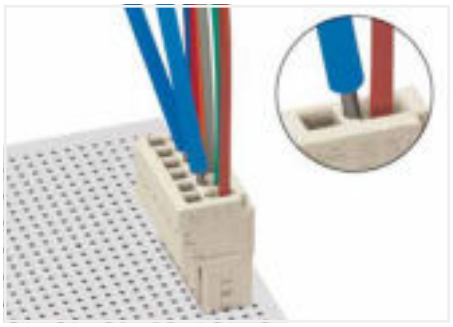
Inserting a conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.

Inserting a conductor into CAGE CLAMP® unit via operating tool (210-251 or 210-250).

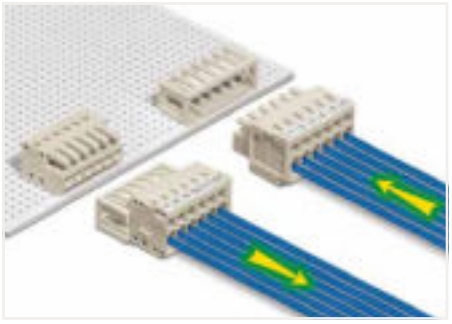


Pin spacing: 3.5 mm and 3.81 mm, CAGE CLAMP®

Inserting a conductor into CAGE CLAMP® unit via operating lever (734-191).

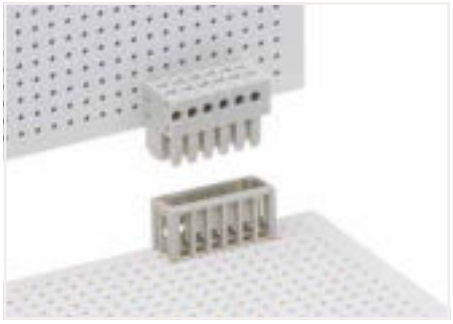


Testing via 1 mm Ø test pin (735-500) – CAGE CLAMP® connection – touch contact.



Easy-to-identify PCB inputs and outputs

Wire-to-wire connection of single conductors

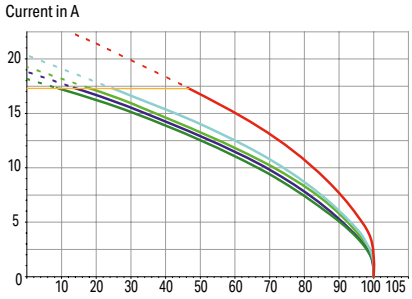


Board-to-board connection – male header with straight solder pins and female header with angled solder pins

1-conductor female plug ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates and housings for field assembly
- 100% protected against mismating
- Coding option available



5

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 415
Marking	Page 864
Mounting	Page 546
Strain relief	Page 417
Test and measurement	Page 886
Tool	Page 414, 870
Direct marking	Page 420
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▸ *MCS* MINI ▸ 734 Series

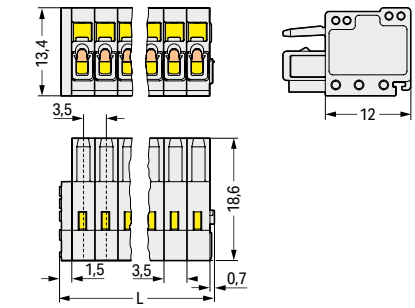
Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: Locking lever	Locking of plug-in connection: Screw flange
734-106		734-106/107-000

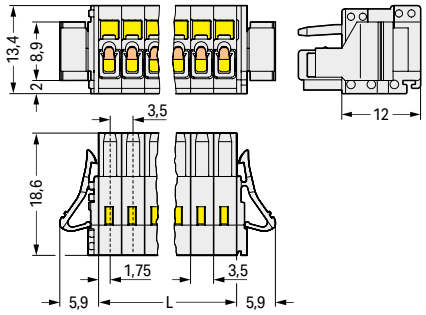
Pole No.	Item No.	PU
2	734-102	200
3	734-103	200
4	734-104	100
5	734-105	100
6	734-106	100
7	734-107	100
8	734-108	50
9	734-109	50
10	734-110	50
11	734-111	50
12	734-112	50
13	734-113	50
14	734-114	50
16	734-116	25
18	734-118	25
20	734-120	25
24	734-124	25

Pole No.	Item No.	PU
2	734-102/037-000	100
3	734-103/037-000	100
4	734-104/037-000	100
5	734-105/037-000	50
6	734-106/037-000	50
7	734-107/037-000	50
8	734-108/037-000	50
9	734-109/037-000	50
10	734-110/037-000	50
11	734-111/037-000	50
12	734-112/037-000	50
13	734-113/037-000	25
14	734-114/037-000	25
16	734-116/037-000	25
18	734-118/037-000	25
20	734-120/037-000	25
24	734-124/037-000	10

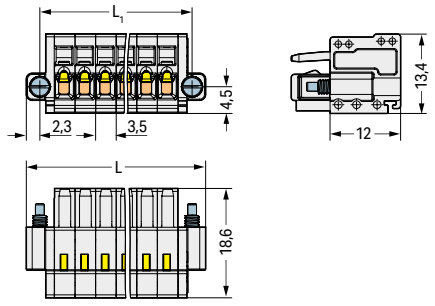
Pole No.	Item No.	PU
2	734-102/107-000	100
3	734-103/107-000	100
4	734-104/107-000	100
5	734-105/107-000	50
6	734-106/107-000	50
7	734-107/107-000	50
8	734-108/107-000	50
9	734-109/107-000	50
10	734-110/107-000	50
11	734-111/107-000	50
12	734-112/107-000	50
13	734-113/107-000	25
14	734-114/107-000	25
16	734-116/107-000	25
18	734-118/107-000	25
20	734-120/107-000	25
24	734-124/107-000	10



L = (pole no. x pin spacing) + 2.2 mm



L = pole no. x pin spacing



L = (pole no. x pin spacing) + 9.5 mm
L_1 = (pole no. x pin spacing) + 4.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MINI ▸ 734 Series

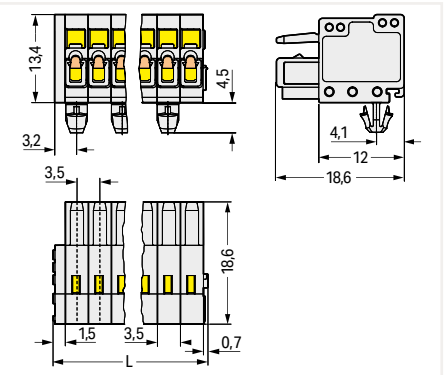
Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

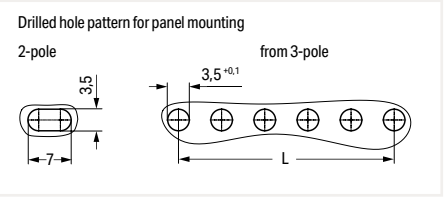
734-106/008-000

Using two DIN-35 rail mounting adapters (209-137) for 3 or more poles; distance between two mounting adapters: maximum 7 poles

Pole No.	Item No.	PU
2	734-102/008-000	200
3	734-103/008-000	200
4	734-104/008-000	100
5	734-105/008-000	100
6	734-106/008-000	100
7	734-107/008-000	50
8	734-108/008-000	50
9	734-109/008-000	50
10	734-110/008-000	50
11	734-111/008-000	50
12	734-112/008-000	50
13	734-113/008-000	50
14	734-114/008-000	50
16	734-116/008-000	25
18	734-118/008-000	25
20	734-120/008-000	25
24	734-124/008-000	25



L = (pole no. x pin spacing) + 2.2 mm



Even pole number: L = (pole no. – 2) x pin spacing
Odd pole number: L = (pole no. – 1) x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

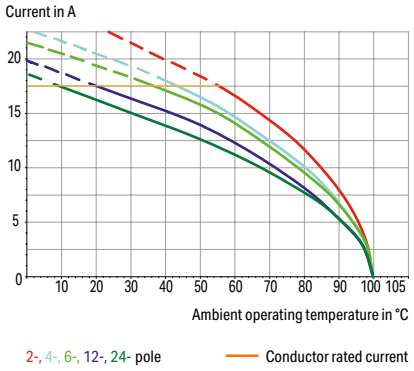
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ *MCS* MINI ▶ 2734 Series

Pin spacing: 3.5 mm / 0.138 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Color: light gray

- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Simple, push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 100% protected against mismating
- Coding option available

Derating Curve
1-conductor female connector (2734-102) with THT male header (734-132)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Mounting	Page 869
Strain relief	Page 417
Tool	Page 414, 870
Direct marking	Page 420
Cutout dimensions	Page 422

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

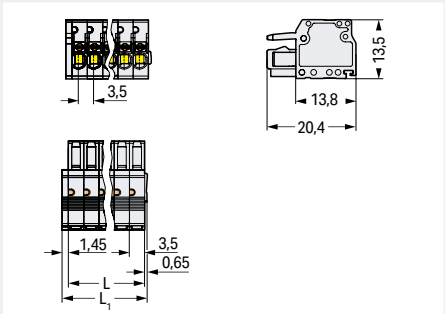
1-conductor female plug ▸ *MCS* MINI ▸ 2734 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: Locking lever	Locking of plug-in connection: Screw flange

2734-106

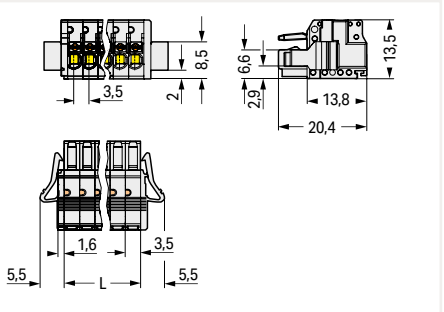
Pole No.	Item No.	PU
2	2734-102	200
3	2734-103	200
4	2734-104	100
5	2734-105	100
6	2734-106	100
7	2734-107	100
8	2734-108	50
9	2734-109	50
10	2734-110	50
11	2734-111	50
12	2734-112	50
13	2734-113	50
14	2734-114	50
16	2734-116	25
18	2734-118	25
20	2734-120	25
24	2734-124	25



L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 2.1 mm

2734-106/037-000

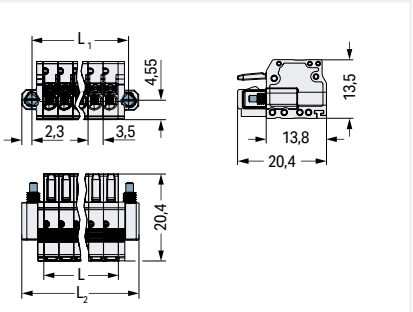
Pole No.	Item No.	PU
2	2734-102/037-000	100
3	2734-103/037-000	100
4	2734-104/037-000	100
5	2734-105/037-000	50
6	2734-106/037-000	50
7	2734-107/037-000	50
8	2734-108/037-000	50
9	2734-109/037-000	50
10	2734-110/037-000	50
11	2734-111/037-000	50
12	2734-112/037-000	50
13	2734-113/037-000	25
14	2734-114/037-000	25
16	2734-116/037-000	25
18	2734-118/037-000	25
20	2734-120/037-000	25
24	2734-124/037-000	10



L = pole no. x pin spacing

2734-106/107-000

Pole No.	Item No.	PU
2	2734-102/107-000	100
3	2734-103/107-000	100
4	2734-104/107-000	100
5	2734-105/107-000	50
6	2734-106/107-000	50
7	2734-107/107-000	50
8	2734-108/107-000	50
9	2734-109/107-000	50
10	2734-110/107-000	50
11	2734-111/107-000	50
12	2734-112/107-000	50
13	2734-113/107-000	25
14	2734-114/107-000	25
16	2734-116/107-000	25
18	2734-118/107-000	25
20	2734-120/107-000	25
24	2734-124/107-000	10



L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 4.9 mm
L_2 = (pole no. x pin spacing) + 9.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

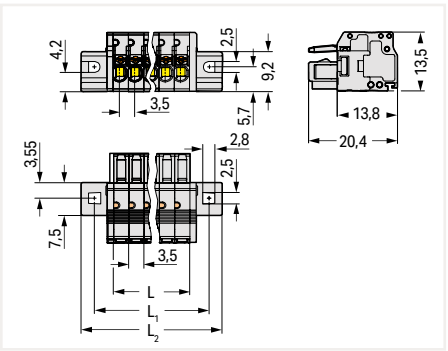
1-conductor female plug ▶ *MCS* MINI ▶ 2734 Series

Pin spacing: 3.5 mm / 0.138 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Color: light gray

Mounting type: Feed-through mounting;Panel mounting ▶ Mounting type: Mounting flange

2734-106/031-000

Pole No.	Item No.	PU
2	2734-102/031-000	100
3	2734-103/031-000	100
4	2734-104/031-000	50
5	2734-105/031-000	50
6	2734-106/031-000	50
7	2734-107/031-000	50
8	2734-108/031-000	50
9	2734-109/031-000	50
12	2734-112/031-000	25

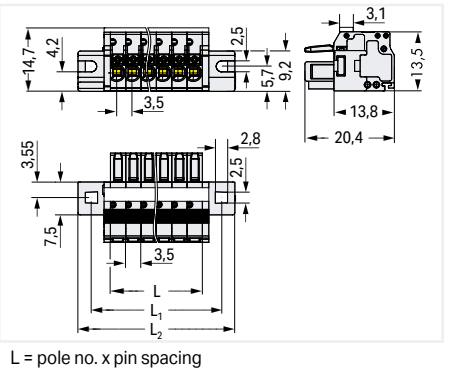


L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 8.8 mm
L_2 = (pole no. x pin spacing) + 14.8 mm

Mounting type: Feed-through mounting;Panel mounting ▶ Mounting type: Mounting flange ▶ with reinforcing strips

2734-110/027-000

Pole No.	Item No.	PU
10	2734-110/027-000	50
11	2734-111/027-000	25
12	2734-112/027-000	25
13	2734-113/027-000	25
14	2734-114/027-000	25
16	2734-116/027-000	25
18	2734-118/027-000	25
20	2734-120/027-000	25
24	2734-124/027-000	10



L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 8.8 mm
L_2 = (pole no. x pin spacing) + 14.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

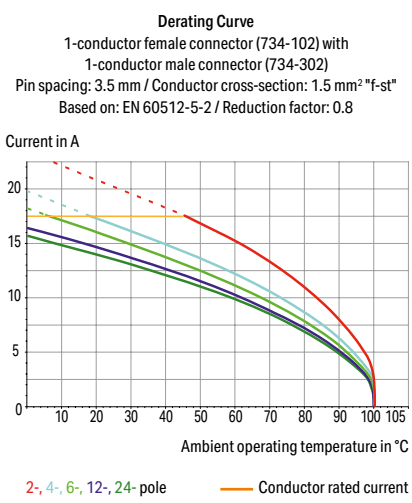
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Strain relief plates and housings for factory and field assembly
- 100% protected against mismating
- Coding option available



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 416
Cover	Page 415
Ferrule	Page 879
Marking	Page 864
Mounting	Page 546, 869
Strain relief	Page 417
Test and measurement	Page 886
Tool	Page 414, 870
Direct marking	Page 420
Cutout dimensions	Page 422

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor male connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: Threaded flange	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

734-306

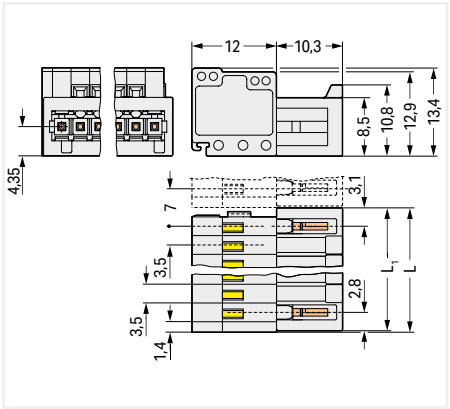
Pole No.	Item No.	PU
2	734-302	200
3	734-303	200
4	734-304	100
5	734-305	100
6	734-306	100
7	734-307	100
8	734-308	50
9	734-309	50
10	734-310	50
11	734-311	50
12	734-312	50
13	734-313	50
14	734-314	50
16	734-316	25
18	734-318	25
20	734-320	25
24	734-324	10

734-306/109-000

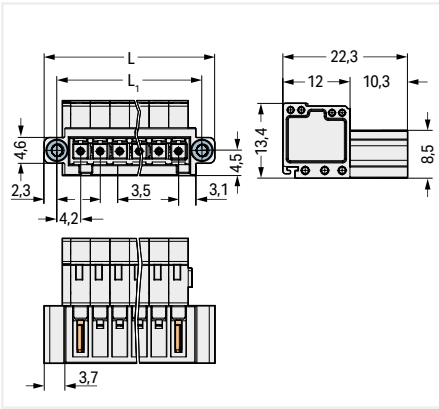
Pole No.	Item No.	PU
2	734-302/109-000	100
3	734-303/109-000	100
4	734-304/109-000	100
5	734-305/109-000	50
6	734-306/109-000	50
7	734-307/109-000	50
8	734-308/109-000	50
9	734-309/109-000	50
10	734-310/109-000	50
11	734-311/109-000	50
12	734-312/109-000	50
13	734-314/109-000	25
13	734-313/109-000	25
16	734-316/109-000	25
18	734-318/109-000	25
20	734-320/109-000	25
24	734-324/109-000	10

734-306/019-000

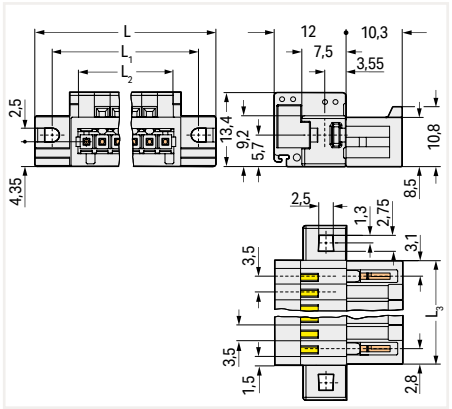
Pole No.	Item No.	PU
2	734-302/019-000	100
4	734-304/019-000	50
5	734-305/019-000	50
6	734-306/019-000	50
7	734-307/019-000	50
8	734-308/019-000	50
9	734-309/019-000	50
10	734-310/019-000	50
11	734-311/019-000	25
12	734-312/019-000	25
13	734-313/019-000	25
14	734-314/019-000	25
16	734-316/019-000	25
18	734-318/019-000	25
20	734-320/019-000	25
24	734-324/019-000	10



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm
L_1 = L – 0.45 mm



L = (pole no. x pin spacing) + 9.5 mm
L_1 = (pole no. x pin spacing) + 4.9 mm



L = (pole no. x pin spacing) + 14.8 mm
L_1 = (pole no. x pin spacing) + 8.8 mm
L_2 = pole no. x pin spacing
L_3 = (pole no. – 1) x pin spacing + 5.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MINI ▸ 734 Series

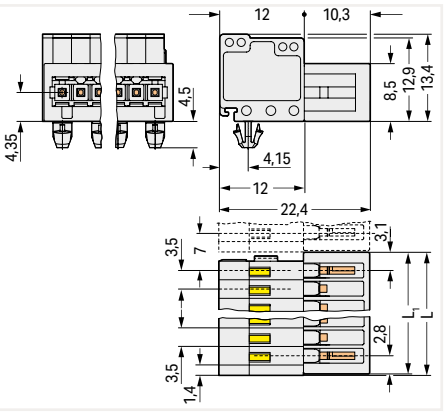
Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

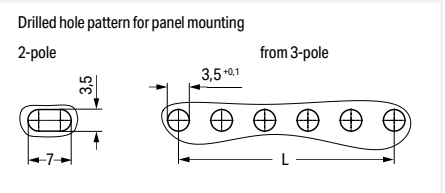
734-306/018-000

Using two DIN-35 rail mounting adapters (209-137) for 3 or more poles. Distance between two mounting adapters: maximum 7 poles.

Pole No.	Item No.	PU
2	734-302/018-000	200
3	734-303/018-000	100
4	734-304/018-000	100
5	734-305/018-000	100
6	734-306/018-000	100
7	734-307/018-000	100
8	734-308/018-000	50
9	734-309/018-000	50
10	734-310/018-000	50
11	734-311/018-000	50
12	734-312/018-000	50
13	734-313/018-000	50
14	734-314/018-000	50
16	734-316/018-000	25
18	734-318/018-000	25
20	734-320/018-000	25
24	734-324/018-000	10



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm
L_1 = L – 0.45 mm



Even pole number: L = (pole no. – 2) x pin spacing
Odd pole number: L = (pole no. – 1) x pin spacing

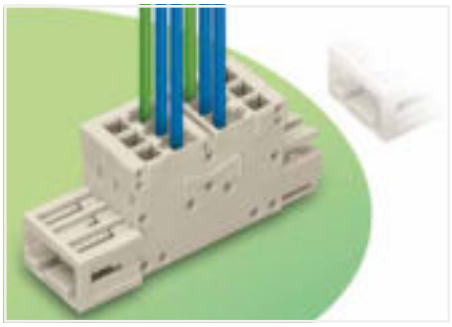
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

2-conductor combi strip ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- 2-conductor strips combine pin and socket connections
- Multiply potentials
- Strain relief plates for factory and field assembly
- Supply via pin-contact side
- Combi strips may be connected to multiply outputs
- 100% protected against mismating
- Coding option available

5

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 416
Cover	Page 415
Ferrule	Page 879
Marking	Page 864
Mounting	Page 546
Strain relief	Page 417
Test and measurement	Page 886
Direct marking	Page 420

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

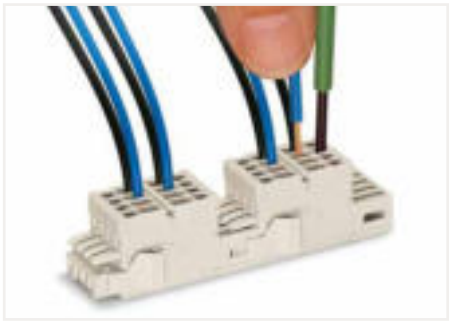
2-conductor combi strip ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: Locking lever

734-364

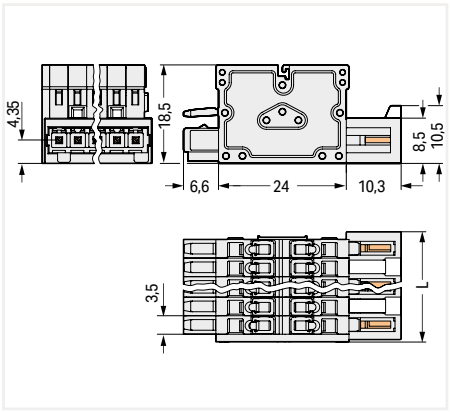
734-364/037-000



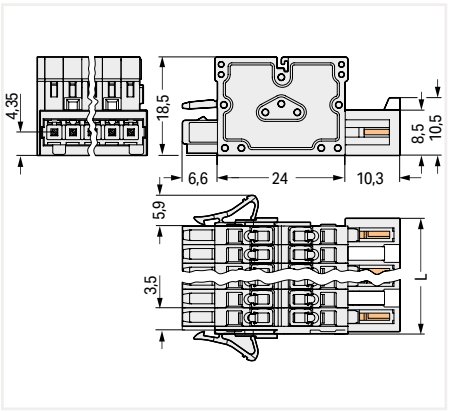
2-conductor combi strips with locking levers for multi-plying potentials

Pole No.	Item No.	PU
2	734-362	100
3	734-363	50
4	734-364	50
5	734-365	50
6	734-366	50
7	734-367	25
8	734-368	25
9	734-369	25
10	734-370	25
11	734-371	25
12	734-372	25

Pole No.	Item No.	PU
2	734-362/037-000	50
3	734-363/037-000	50
4	734-364/037-000	50
5	734-365/037-000	50
6	734-366/037-000	25
7	734-367/037-000	25
8	734-368/037-000	25
9	734-369/037-000	25
10	734-370/037-000	25
11	734-371/037-000	25
12	734-372/037-000	25



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

2-conductor combi strip ▸ *MCS* MINI ▸ 734 Series

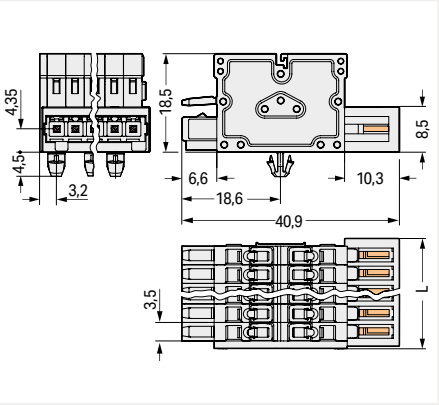
Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

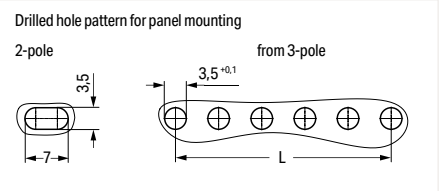
734-366/008-000

2-conductor combi strip with snap-in mounting feet using two DIN-35 rail mounting adapters (209-137) for 3 or more poles; distance between two mounting adapters: maximum 7 poles

Pole No.	Item No.	PU
2	734-362/008-000	100
3	734-363/008-000	50
4	734-364/008-000	50
5	734-365/008-000	50
6	734-366/008-000	50
7	734-367/008-000	50
8	734-368/008-000	50
9	734-369/008-000	25
10	734-370/008-000	25
11	734-371/008-000	25
12	734-372/008-000	25



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm



Even pole number: L = (pole no. – 2) x pin spacing
Odd pole number: L = (pole no. – 1) x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

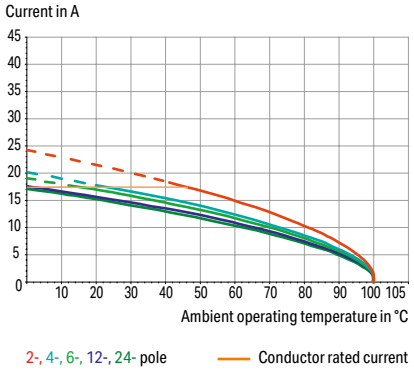
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

THT female header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin length: 3.8 mm ▸ Color: light gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Integrated test ports for 2 mm Ø test plugs
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify inputs and outputs
- 100% protected against mismating
- Coding option available

Derating Curve
THT female header (734-532) with
1-conductor male connector (734-302)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	3.8 mm
Solder pin dimensions	0.9 x 0.9 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

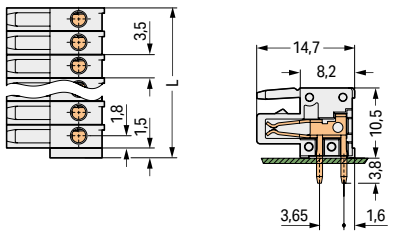
THT female header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin length: 3.8 mm ▸ Color: light gray

Mating direction to the PCB: 0 °

734-536

Pole No.	Item No.	PU
2	734-532	200
3	734-533	200
4	734-534	100
5	734-535	100
6	734-536	100
7	734-537	50
8	734-538	50
9	734-539	50
10	734-540	50
11	734-541	50
12	734-542	50
13	734-543	50
14	734-544	50
16	734-546	25
18	734-548	25
20	734-550	25
24	734-554	25

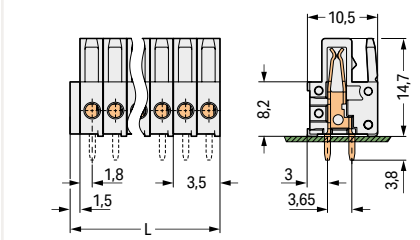


L = (pole no. x pin spacing) + 1.5 mm

Mating direction to the PCB: 90 °

734-466

Pole No.	Item No.	PU
2	734-462	200
3	734-463	200
4	734-464	100
5	734-465	100
6	734-466	100
7	734-467	50
8	734-468	50
9	734-469	50
10	734-470	50
11	734-471	50
12	734-472	50
13	734-473	50
14	734-474	50
16	734-476	25
18	734-478	25
20	734-480	25
24	734-484	25

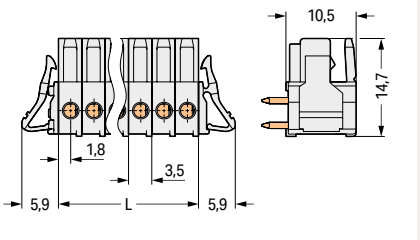


L = (pole no. x pin spacing) + 1.5 mm

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

734-536/037-000

Pole No.	Item No.	PU
2	734-532/037-000	100
3	734-533/037-000	100
4	734-534/037-000	100
5	734-535/037-000	50
6	734-536/037-000	50
7	734-537/037-000	50
8	734-538/037-000	50
9	734-539/037-000	50
10	734-540/037-000	50
11	734-541/037-000	50
12	734-542/037-000	50
13	734-543/037-000	25
14	734-544/037-000	25
16	734-546/037-000	25
18	734-548/037-000	25
20	734-550/037-000	25
24	734-554/037-000	10



L = pole no. x pin spacing

5

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

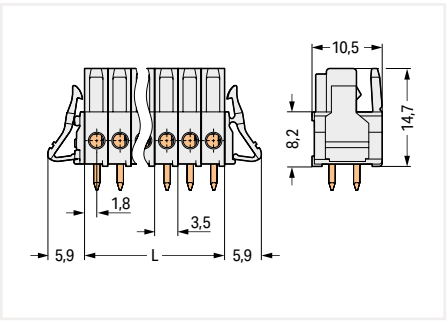
THT female header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin length: 3.8 mm ▸ Color: light gray

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

734-466/037-000

Pole No.	Item No.	PU
2	734-462/037-000	100
3	734-463/037-000	100
4	734-464/037-000	100
5	734-465/037-000	50
6	734-466/037-000	50
7	734-467/037-000	50
8	734-468/037-000	50
9	734-469/037-000	50
10	734-470/037-000	50
11	734-471/037-000	50
12	734-472/037-000	50
13	734-473/037-000	25
14	734-474/037-000	25
16	734-476/037-000	25
18	734-478/037-000	25
20	734-480/037-000	25
24	734-484/037-000	10



L = pole no. x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

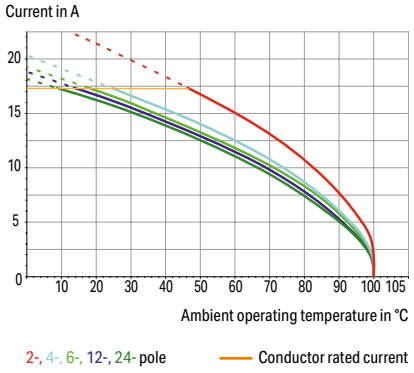
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.5 mm / 0.138 inch ▸ Color: light gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- 100% protected against mismating; only mating halves with the same number of poles can be connected together
- Coding option available

Derating Curve
1-conductor female connector (734-102) with
THT male header (734-162)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 416

See technical section for further information

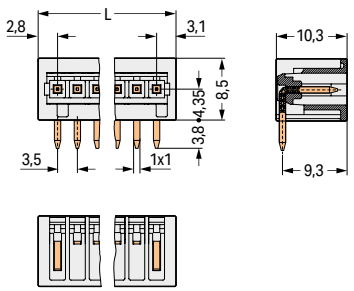
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.5 mm / 0.138 inch ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

734-166

Pole No.	Item No.	PU
2	734-162	200
3	734-163	200
4	734-164	200
5	734-165	200
6	734-166	100
7	734-167	100
8	734-168	100
9	734-169	100
10	734-170	100
11	734-171	100
12	734-172	100
13	734-173	100
14	734-174	50
16	734-176	50
18	734-178	50
20	734-180	50
24	734-184	50

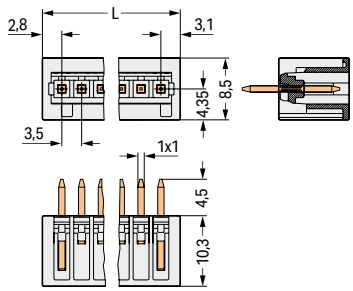


L = (pole no. – 1) x pin spacing + 5.9 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 4.5 mm

734-136

Pole No.	Item No.	PU
2	734-132	200
3	734-133	200
4	734-134	200
5	734-135	200
6	734-136	100
7	734-137	100
8	734-138	100
9	734-139	100
10	734-140	100
11	734-141	100
12	734-142	100
13	734-143	100
14	734-144	100
16	734-146	50
18	734-148	50
20	734-150	50
24	734-154	50

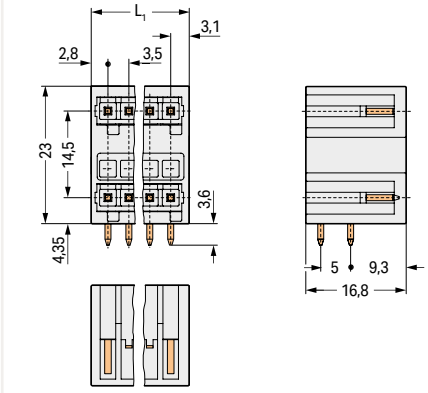


L = (pole no. – 1) x pin spacing + 5.9 mm

Double-deck ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.6 mm

734-406

Pole No.	Item No.	PU
4	734-402	100
6	734-403	100
8	734-404	100
10	734-405	100
12	734-406	100
14	734-407	50
16	734-408	50
18	734-409	50
20	734-410	50
24	734-412	50



L_1 = (pole no./2 – 1) x pin spacing + 5.9 mm

5

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

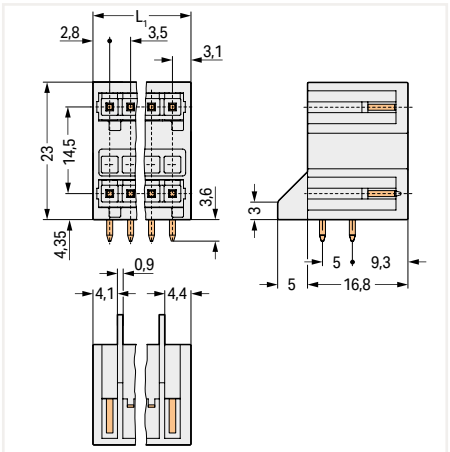
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.5 mm / 0.138 inch ▸ Color: light gray

Double-deck with support ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.6 mm

734-406/001-000

Pole No.	Item No.	PU
4	734-402/001-000	100
6	734-403/001-000	100
8	734-404/001-000	100
10	734-405/001-000	100
12	734-406/001-000	50
14	734-407/001-000	50
16	734-408/001-000	50
18	734-409/001-000	50
20	734-410/001-000	50
24	734-412/001-000	50

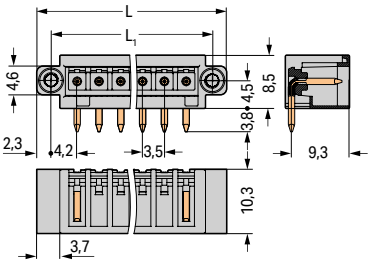


L_1 = (pole no./2 – 1) x pin spacing + 5.9 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

734-166/108-000

Pole No.	Item No.	PU
2	734-162/108-000	200
3	734-163/108-000	200
4	734-164/108-000	200
5	734-165/108-000	200
6	734-166/108-000	100
7	734-167/108-000	100
8	734-168/108-000	100
9	734-169/108-000	100
10	734-170/108-000	100
11	734-171/108-000	100
12	734-172/108-000	100
13	734-173/108-000	100
14	734-174/108-000	50
16	734-176/108-000	50
18	734-178/108-000	50
20	734-180/108-000	50
24	734-184/108-000	50

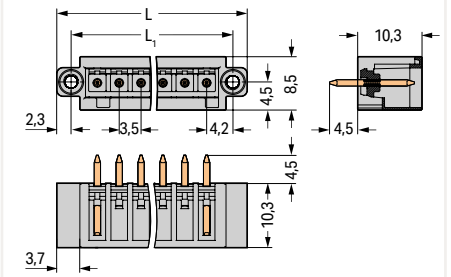


L = (pole no. x pin spacing) + 9.5 mm
L_1 = (pole no. x pin spacing) + 4.9 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90 ° ▸ Solder pin length: 4.5 mm

734-136/108-000

Pole No.	Item No.	PU
2	734-132/108-000	200
3	734-133/108-000	200
4	734-134/108-000	200
5	734-135/108-000	100
6	734-136/108-000	100
7	734-137/108-000	100
8	734-138/108-000	100
9	734-139/108-000	100
10	734-140/108-000	100
11	734-141/108-000	100
12	734-142/108-000	100
13	734-143/108-000	50
14	734-144/108-000	50
16	734-146/108-000	50
18	734-148/108-000	50
20	734-150/108-000	50
24	734-154/108-000	50

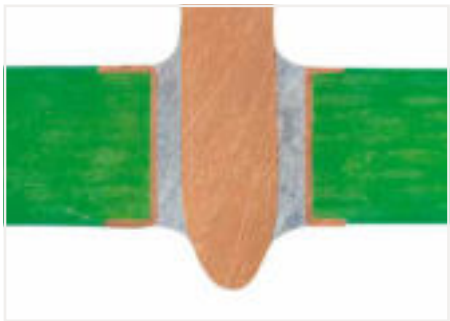


L = (pole no. x pin spacing) + 9.5 mm
L_1 = (pole no. x pin spacing) + 4.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THR (Through-Hole Reflow) Soldering Process

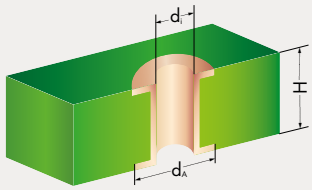


By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.

Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.

5

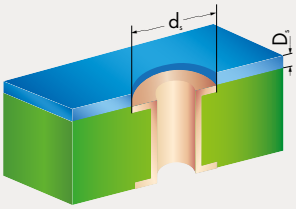
1



Metal-plated PCB bore hole

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1.1^{+0.1}$	1.9	< 2	1.8	150	0.9	2.8
231 (1 x 1 mm)	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
231 (1.2 x 1.2 mm)	$1.7^{+0.1}$	2.8	< 2	2.7	150	1.5	2.4
236	$1.1^{+0.1}$	2.2	< 2	2.1	150	0.9	3.6
250	$1.1^{+0.1}$	2.0	< 2	1.9	150	0.9	2.4
713	$1.0^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
733	$1.2^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
734	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
2060	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	2.4
2061	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	1.5 / 2.4
2086	$1.0^{+0.1}$	2.0	< 2	1.9	150	0.85	1.5 / 2.4

2

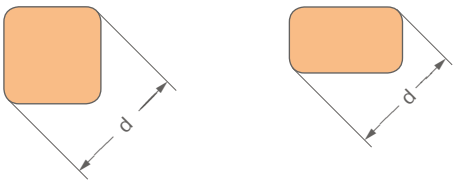


SMD positioning pattern

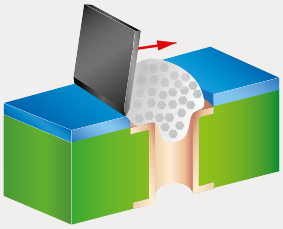
d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Solder pin form

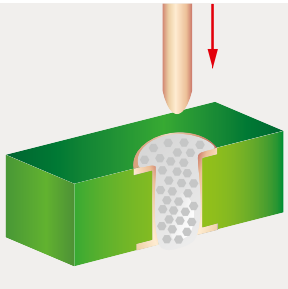


3



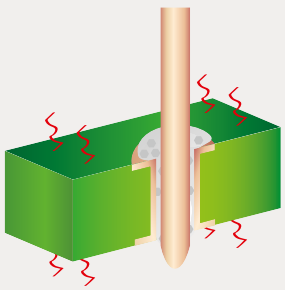
Solder paste application

4



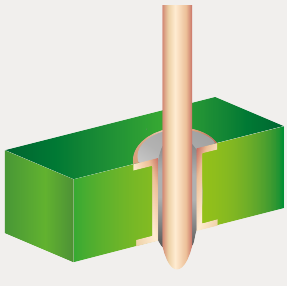
Component assembly, automatic/by hand

5



Reflow soldering process

6

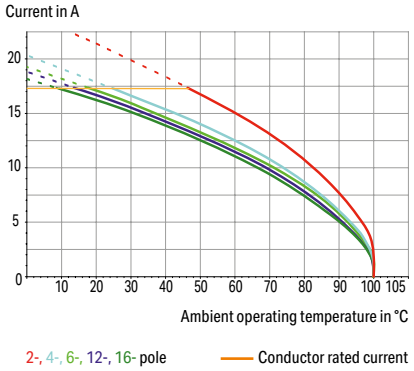


THR soldering joint

THR male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.5 mm / 0.138 inch ▸ Color: black

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Optimal thermal penetration via pin enclosure design provides lower soldering temperatures
- 100% protected against mismating
- Coding via coding fingers

Derating Curve
1-conductor female connector (734-102) with
THR male header (734-132/105-604)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data						
Mating direction to the PCB	**0°;90°**			**0°**		
com_Automatenbestueckung	**1**					
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	160 V	160 V	320 V	160 V	250 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering	Page 384
Coding	Page 416

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.5 mm / 0.138 inch ▸ Color: black

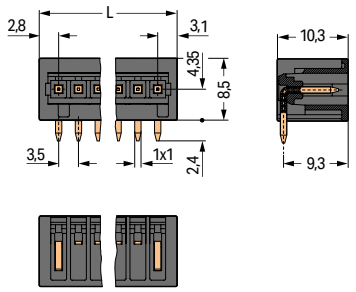
Mating direction to the PCB: 0 °

Suitable for automated assembly

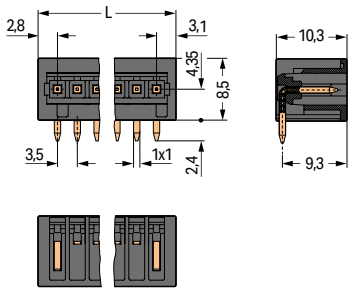
734-170/105-604

Pole No.	Item No.	PU
2	734-162/105-604	200
3	734-163/105-604	200
4	734-164/105-604	200
5	734-165/105-604	200
6	734-166/105-604	100
7	734-167/105-604	100
8	734-168/105-604	100
9	734-169/105-604	100
10	734-170/105-604	100
11	734-171/105-604	100
12	734-172/105-604	100
14	734-174/105-604	100
16	734-176/105-604	50

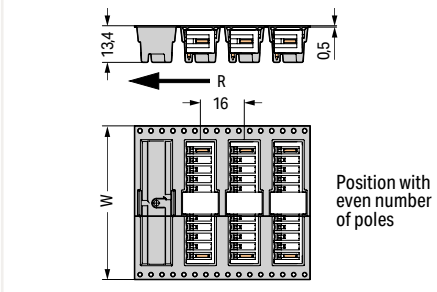
Pole No.	Tape width	Item No.	PU
2	32 mm	734-162/105-604/997-405	280
3	32 mm	734-163/105-604/997-405	280
4	32 mm	734-164/105-604/997-405	280
5	32 mm	734-165/105-604/997-405	280
6	56 mm	734-166/105-604/997-407	280
7	56 mm	734-167/105-604/997-407	280
8	56 mm	734-168/105-604/997-407	280
9	56 mm	734-169/105-604/997-407	280
10	56 mm	734-170/105-604/997-407	280
11	56 mm	734-171/105-604/997-407	280
12	56 mm	734-172/105-604/997-407	280
14	72 mm	734-174/105-604/997-408	280
16	72 mm	734-176/105-604/997-408	280



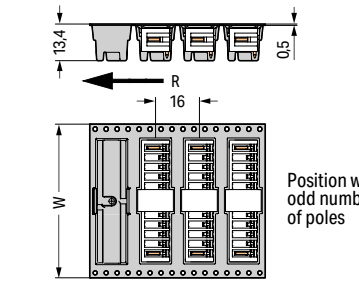
L = (pole no. – 1) x pin spacing + 5.9 mm



L = (pole no. – 1) x pin spacing + 5.9 mm



W = tape width
R = feed direction



W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.5 mm / 0.138 inch ▸ Color: black

Mating direction to the PCB: 90 °

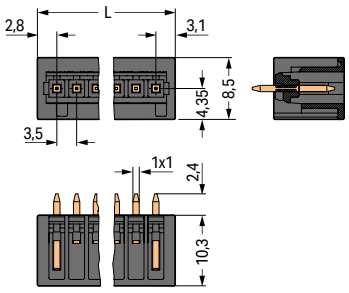
Suitable for automated assembly

734-140/105-604

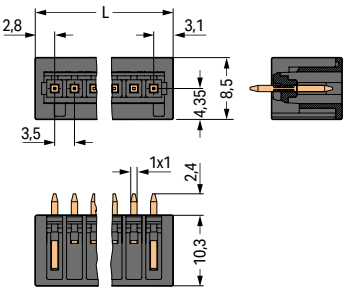
734-144/105-604/999-408

Pole No.	Item No.	PU
2	734-132/105-604	200
3	734-133/105-604	200
4	734-134/105-604	200
5	734-135/105-604	200
6	734-136/105-604	100
7	734-137/105-604	100
8	734-138/105-604	100
9	734-139/105-604	100
10	734-140/105-604	100
11	734-141/105-604	100
12	734-142/105-604	100
14	734-144/105-604	100
16	734-146/105-604	50

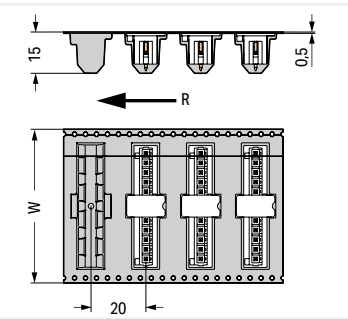
Pole No.	Tape width	Item No.	PU
3	32 mm	734-133/105-604/997-405	200
4	32 mm	734-134/105-604/997-405	200
5	32 mm	734-135/105-604/997-405	200
6	56 mm	734-136/105-604/997-407	200
7	56 mm	734-137/105-604/997-407	200
8	56 mm	734-138/105-604/997-407	200
9	56 mm	734-139/105-604/997-407	200
10	56 mm	734-140/105-604/997-407	200
11	56 mm	734-141/105-604/997-407	200
12	56 mm	734-142/105-604/997-407	200
14	72 mm	734-144/105-604/997-408	200
16	72 mm	734-146/105-604/997-408	200



L = (pole no. – 1) x pin spacing + 5.9 mm



L = (pole no. – 1) x pin spacing + 5.9 mm



W = tape width
R = feed direction

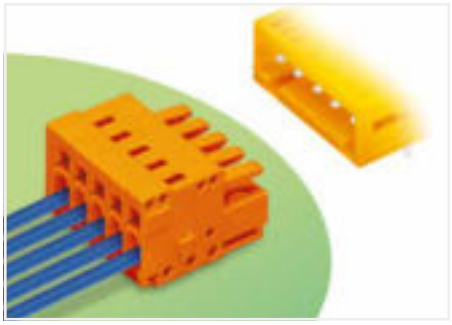
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

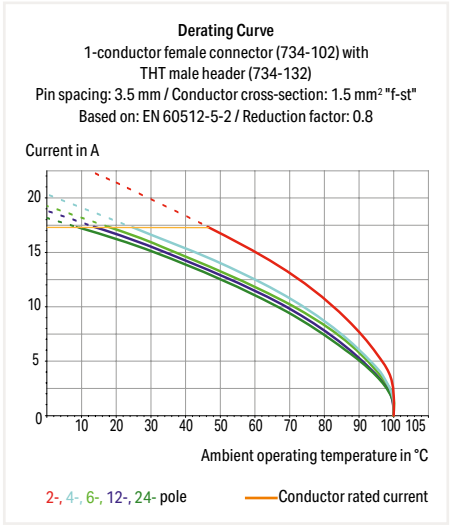
- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm / 0.15 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates and housings for field assembly
- 100% protected against mismating
- Coding option available



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Marking	Page 864
Mounting	Page 546
Strain relief	Page 417
Test and measurement	Page 886
Tool	Page 414
Direct marking	Page 420

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm / 0.15 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

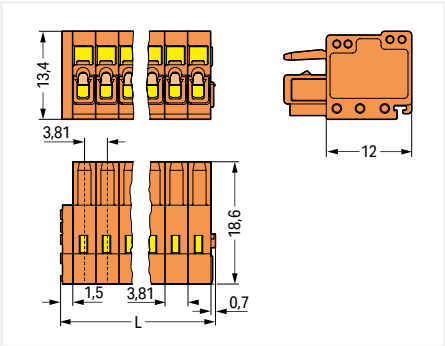
	Locking of plug-in connection: Locking lever

734-206

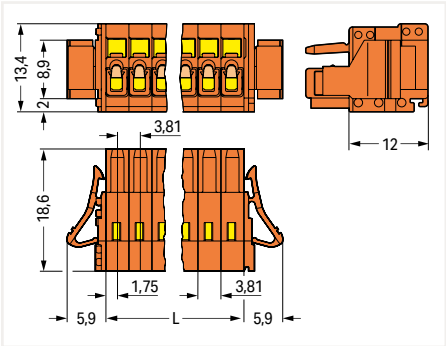
734-206/037-000

Pole No.	Item No.	PU
2	734-202	200
3	734-203	200
4	734-204	100
5	734-205	100
6	734-206	100
8	734-208	50
9	734-209	50
10	734-210	50
12	734-212	25
14	734-214	25
15	734-215	25
16	734-216	25
18	734-218	25
19	734-219	25
20	734-220	25

Pole No.	Item No.	PU
2	734-202/037-000	100
3	734-203/037-000	100
4	734-204/037-000	100
5	734-205/037-000	50
6	734-206/037-000	50
8	734-208/037-000	50
9	734-209/037-000	50
10	734-210/037-000	50
12	734-212/037-000	25
14	734-214/037-000	25
15	734-215/037-000	25
16	734-216/037-000	25
18	734-218/037-000	25
19	734-219/037-000	25
20	734-220/037-000	25



L = (pole no. x pin spacing) + 2.2 mm



L = pole no. x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MINI ▸ 734 Series

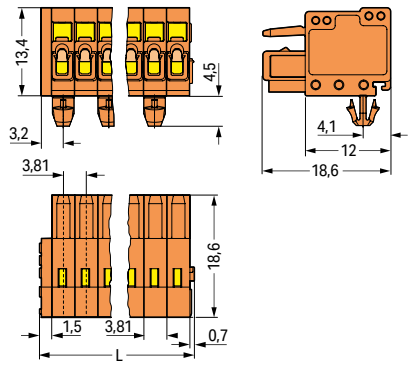
Pin spacing: 3.81 mm / 0.15 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

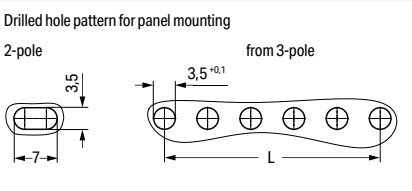
734-206/008-000

Using two DIN-35 rail mounting adapters (209-137) for 3 or more poles; distance between two mounting adapters: maximum 7 poles

Pole No.	Item No.	PU
2	734-202/008-000	200
3	734-203/008-000	200
4	734-204/008-000	100
5	734-205/008-000	100
6	734-206/008-000	100
8	734-208/008-000	50
9	734-209/008-000	50
10	734-210/008-000	50
12	734-212/008-000	50
14	734-214/008-000	50
15	734-215/008-000	25
16	734-216/008-000	25
18	734-218/008-000	25
19	734-219/008-000	25
20	734-220/008-000	25



L = pole no. x pin spacing



Even pole number: L = (pole no. – 2) x pin spacing
Odd pole number: L = (pole no. – 1) x pin spacing

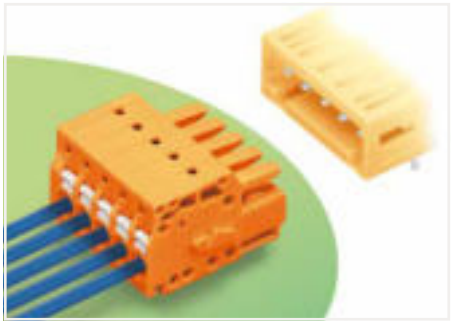
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

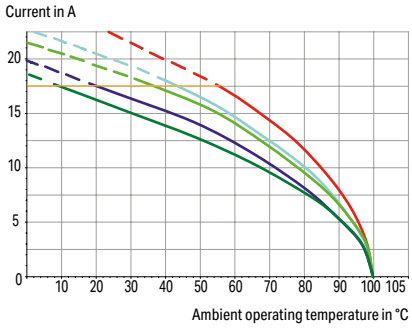
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ *MCS* MINI ▶ 2734 Series

Pin spacing: 3.81 mm / 0.15 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Color: orange



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Simple, push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 100% protected against mismating
- Coding option available



5

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Mounting	Page 869
Strain relief	Page 417
Tool	Page 414, 870
Direct marking	Page 420
Cutout dimensions	Page 422

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

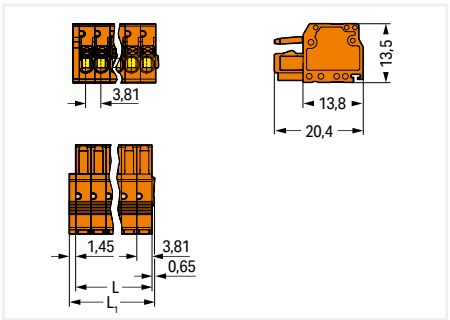
1-conductor female plug ▸ *MCS* MINI ▸ 2734 Series

Pin spacing: 3.81 mm / 0.15 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: orange

	Locking of plug-in connection: Locking lever	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

2734-206

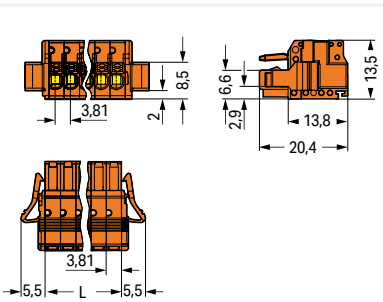
Pole No.	Item No.	PU
2	2734-202	200
3	2734-203	200
4	2734-204	100
5	2734-205	100
6	2734-206	100
8	2734-208	50
9	2734-209	50
10	2734-210	50
12	2734-212	25
14	2734-214	25
15	2734-215	25
16	2734-216	25
18	2734-218	25
19	2734-219	25
20	2734-220	25



L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 2.1 mm

2734-206/037-000

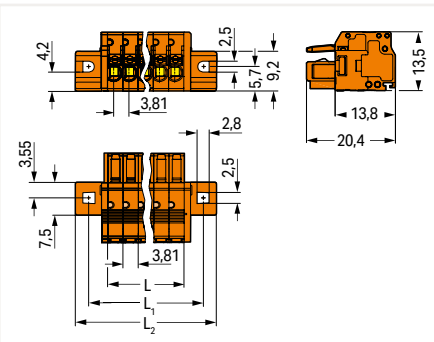
Pole No.	Item No.	PU
2	2734-202/037-000	100
3	2734-203/037-000	100
4	2734-204/037-000	100
5	2734-205/037-000	50
6	2734-206/037-000	50
8	2734-208/037-000	50
9	2734-209/037-000	50
10	2734-210/037-000	50
12	2734-212/037-000	25
14	2734-214/037-000	25
15	2734-215/037-000	25
16	2734-216/037-000	25
18	2734-218/037-000	25
19	2734-219/037-000	25
20	2734-220/037-000	25



L = pole no. x pin spacing

2734-206/031-000

Pole No.	Item No.	PU
2	2734-202/031-000	100
3	2734-203/031-000	100
4	2734-204/031-000	50
5	2734-205/031-000	50
6	2734-206/031-000	50
8	2734-208/031-000	50
9	2734-209/031-000	50
10	2734-210/031-000	50
12	2734-212/031-000	25
14	2734-214/031-000	25
16	2734-216/031-000	25
20	2734-220/031-000	25



L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 8.8 mm
L_2 = (pole no. x pin spacing) + 14.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

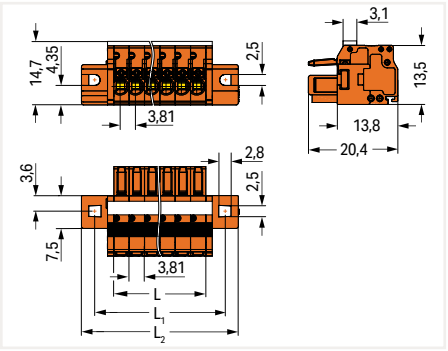
1-conductor female plug ▸ *MCS* MINI ▸ 2734 Series

Pin spacing: 3.81 mm / 0.15 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: orange

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strips

2734-210/027-000

Pole No.	Item No.	PU
10	2734-210/027-000	50
12	2734-212/027-000	25
14	2734-214/027-000	25
15	2734-215/027-000	25
16	2734-216/027-000	25
18	2734-218/027-000	25
19	2734-219/027-000	25
20	2734-220/027-000	25



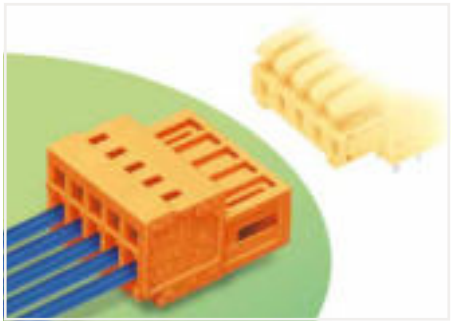
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

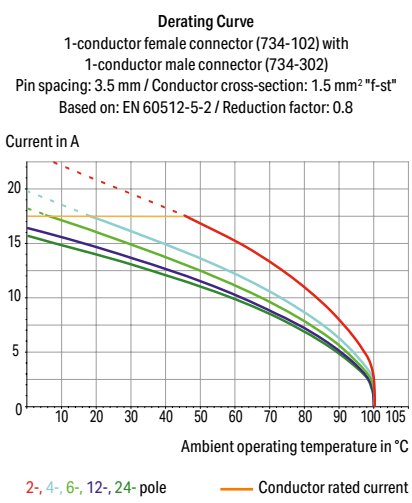
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm / 0.15 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Strain relief plates and housings for factory and field assembly
- 100% protected against mismating
- Coding option available



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 416
Cover	Page 415
Ferrule	Page 879
Marking	Page 864
Mounting	Page 546, 869
Strain relief	Page 417
Test and measurement	Page 886
Tool	Page 414, 870
Direct marking	Page 420
Cutout dimensions	Page 422

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor male connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm / 0.15 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

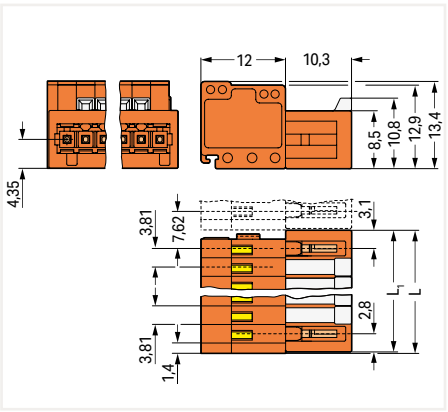
Mounting type: Feed-through mounting;Panel mounting
▸ Mounting type: Mounting flange

734-336

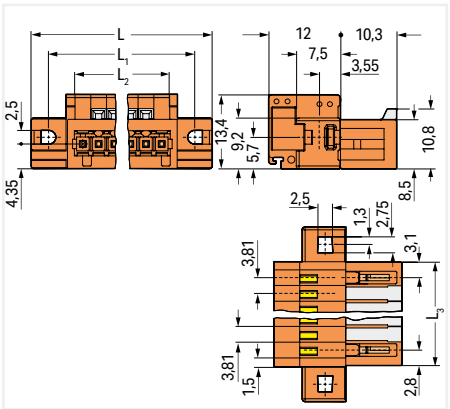
734-336/019-000

Pole No.	Item No.	PU
2	734-332	200
3	734-333	200
4	734-334	100
5	734-335	100
6	734-336	100
8	734-338	50
9	734-339	50
10	734-340	50
12	734-342	50
14	734-344	50
15	734-345	25
16	734-346	25
18	734-348	25
19	734-349	25
20	734-350	25

Pole No.	Item No.	PU
2	734-332/019-000	100
3	734-333/019-000	100
4	734-334/019-000	50
5	734-335/019-000	50
6	734-336/019-000	50
8	734-338/019-000	50
9	734-339/019-000	50
10	734-340/019-000	50
12	734-342/019-000	25
14	734-344/019-000	25
15	734-345/019-000	25
16	734-346/019-000	25
18	734-348/019-000	25
19	734-349/019-000	25
20	734-350/019-000	25



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm
L_1 = L – 0.45 mm



L = (pole no. x pin spacing) + 14.8 mm
L_1 = (pole no. x pin spacing) + 8.8 mm
L_2 = pole no. x pin spacing
L_3 = (pole no. – 1) x pin spacing + 5.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MINI ▸ 734 Series

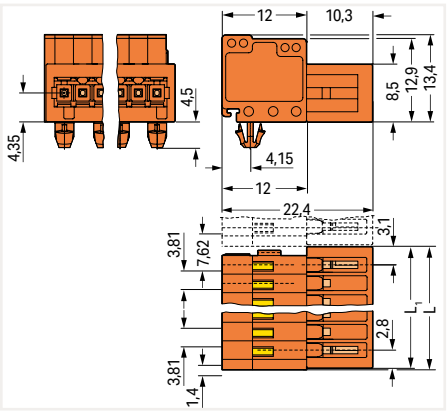
Pin spacing: 3.81 mm / 0.15 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

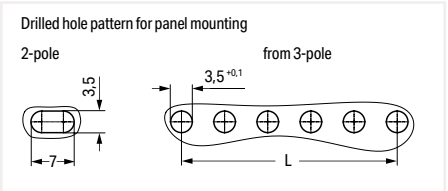
734-336/018-000

Using two DIN-35 rail mounting adapters (209-137) for 3 or more poles; distance between two mounting adapters: maximum 7 poles

Pole No.	Item No.	PU
2	734-332/018-000	200
3	734-333/018-000	100
4	734-334/018-000	100
5	734-335/018-000	100
6	734-336/018-000	100
8	734-338/018-000	50
9	734-339/018-000	50
10	734-340/018-000	50
12	734-342/018-000	50
14	734-344/018-000	50
15	734-345/018-000	25
16	734-346/018-000	25
18	734-348/018-000	25
19	734-349/018-000	25
20	734-350/018-000	25



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm
L_1 = L – 0.45 mm



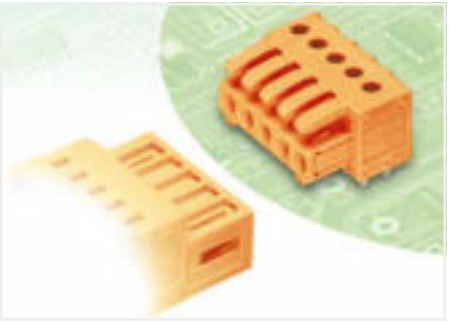
Even pole number: L = (pole no. – 2) x pin spacing
Odd pole number: L = (pole no. – 1) x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

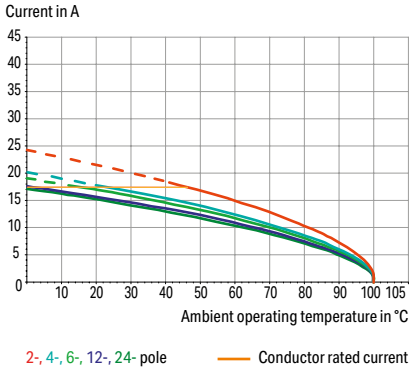
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.81 mm / 0.15 inch ▸ Solder pin length: 3.8 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Integrated test ports for 2 mm Ø test plugs
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify inputs and outputs
- 100% protected against mismating
- Coding option available

Derating Curve
THT female header (734-532) with
1-conductor male connector (734-302)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	3.8 mm
Solder pin dimensions	0.9 x 0.9 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

See technical section for further information

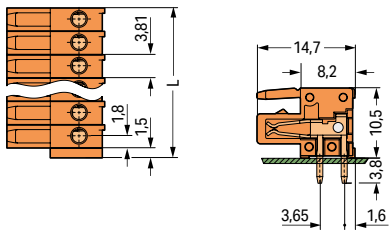
For approvals and corresponding ratings, visit www.wago.com

THT female header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.81 mm / 0.15 inch ▸ Solder pin length: 3.8 mm ▸ Color: orange

Mating direction to the PCB: 0 °

734-566

Pole No.	Item No.	PU
2	734-562	200
3	734-563	200
4	734-564	100
5	734-565	100
6	734-566	100
8	734-568	50
9	734-569	50
10	734-570	50
12	734-572	25
14	734-574	25
15	734-575	25
16	734-576	25
20	734-580	25

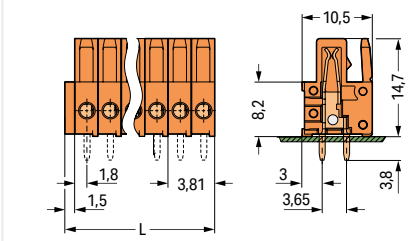


L = (pole no. x pin spacing) + 1.5 mm

Mating direction to the PCB: 90 °

734-506

Pole No.	Item No.	PU
2	734-502	200
3	734-503	200
4	734-504	100
5	734-505	100
6	734-506	100
8	734-508	50
9	734-509	50
10	734-510	50
12	734-512	25
14	734-514	25
15	734-515	25
16	734-516	25
20	734-520	25

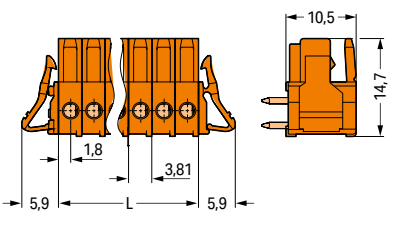


L = (pole no. x pin spacing) + 1.5 mm

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

734-566/037-000

Pole No.	Item No.	PU
2	734-562/037-000	100
3	734-563/037-000	100
4	734-564/037-000	100
5	734-565/037-000	50
6	734-566/037-000	50
8	734-568/037-000	50
9	734-569/037-000	50
10	734-570/037-000	50
12	734-572/037-000	25
14	734-574/037-000	25
15	734-575/037-000	25
16	734-576/037-000	25
20	734-580/037-000	25



L = pole no. x pin spacing

5

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

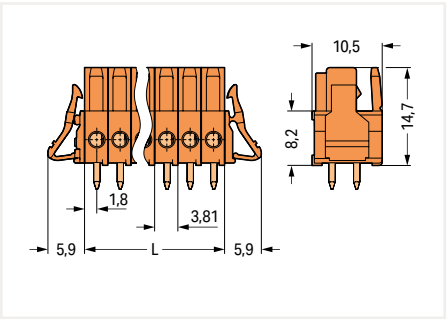
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.81 mm / 0.15 inch ▸ Solder pin length: 3.8 mm ▸ Color: orange

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

734-506/037-000

Pole No.	Item No.	PU
2	734-502/037-000	100
3	734-503/037-000	100
4	734-504/037-000	100
5	734-505/037-000	50
6	734-506/037-000	50
8	734-508/037-000	50
9	734-509/037-000	50
10	734-510/037-000	50
12	734-512/037-000	25
14	734-514/037-000	25
15	734-515/037-000	25
16	734-516/037-000	25
20	734-520/037-000	25

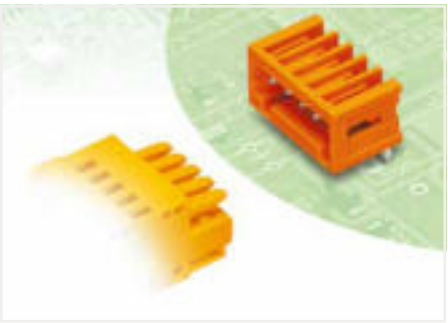


L = pole no. x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

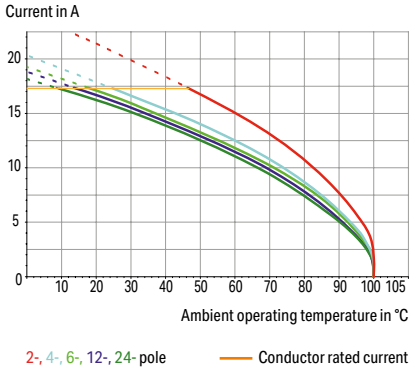
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 100% protected against mismating; only mating halves with the same number of poles can be connected together
- Coding option available

Derating Curve
1-conductor female connector (734-102) with
THT male header (734-162)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 416

See technical section for further information

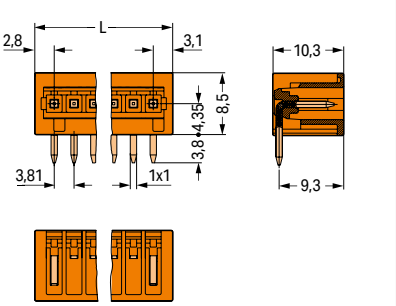
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

734-266

Pole No.	Item No.	PU
2	734-262	200
3	734-263	200
4	734-264	200
5	734-265	200
6	734-266	100
8	734-268	100
9	734-269	100
10	734-270	100
12	734-272	100
14	734-274	100
15	734-275	100
16	734-276	50
18	734-278	50
19	734-279	50
20	734-280	50

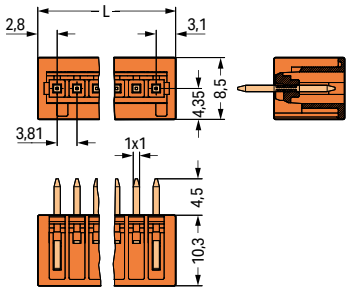


L = (pole no. – 1) x pin spacing + 5.9 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 4.5 mm

734-236

Pole No.	Item No.	PU
2	734-232	200
3	734-233	200
4	734-234	200
5	734-235	200
6	734-236	100
8	734-238	100
9	734-239	100
10	734-240	100
12	734-242	100
14	734-244	100
15	734-245	100
16	734-246	50
18	734-248	50
19	734-249	50
20	734-250	50

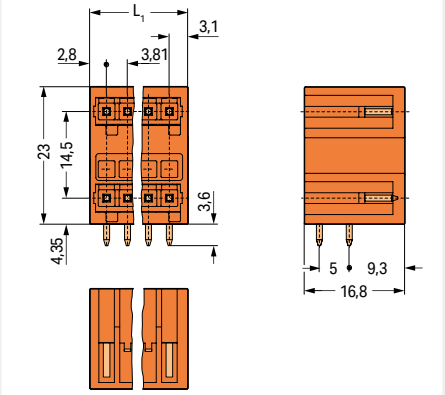


L = (pole no. – 1) x pin spacing + 5.9 mm

Double-deck ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.6 mm

734-436

Pole No.	Item No.	PU
4	734-432	100
6	734-433	100
8	734-434	100
10	734-435	100
12	734-436	100
14	734-437	50
16	734-438	50
18	734-439	50
20	734-440	50
24	734-442	50



L_1 = (pole no./2 – 1) x pin spacing + 5.9 mm

5

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

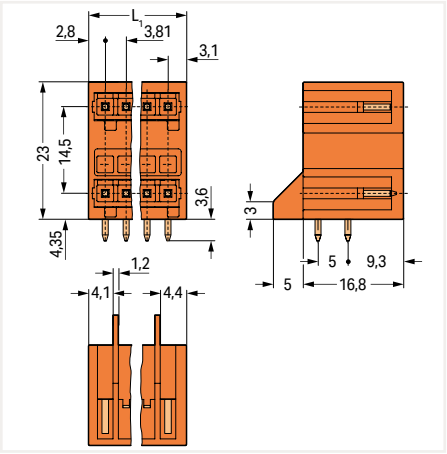
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange

Double-deck with support ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.6 mm

734-436/001-000

Pole No.	Item No.	PU
4	734-432/001-000	100
6	734-433/001-000	100
7	734-437/001-000	50
8	734-434/001-000	100
10	734-435/001-000	100
12	734-436/001-000	50
16	734-438/001-000	50
18	734-439/001-000	50
20	734-440/001-000	50
24	734-442/001-000	50



L_1 = (pole no./2 – 1) x pin spacing + 5.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

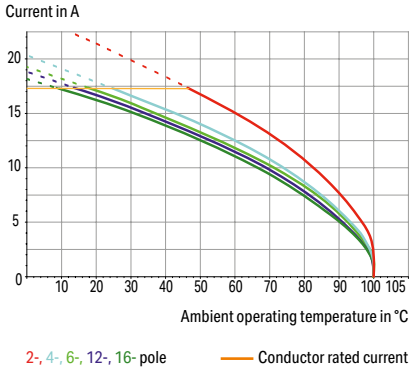
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.81 mm / 0.15 inch ▸ Color: black

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Optimal thermal penetration via pin enclosure design provides lower soldering temperatures
- 100% protected against mismating
- Coding via coding fingers

Derating Curve
1-conductor female connector (734-102) with
THR male header (734-132/105-604)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering Page 384
Coding Page 416

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

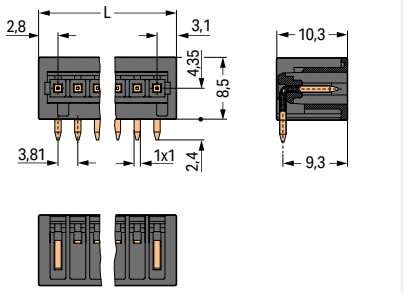
THR male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.81 mm / 0.15 inch ▸ Color: black

Mating direction to the PCB: 0 °

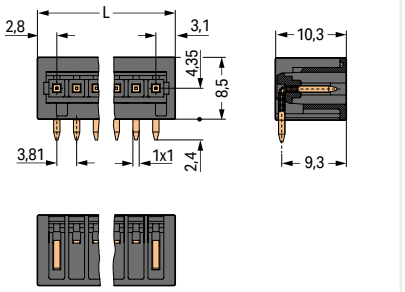
Suitable for automated assembly

Pole No.	Item No.	PU
2	734-262/105-604	200
3	734-263/105-604	200
4	734-264/105-604	200
5	734-265/105-604	200
6	734-266/105-604	100
8	734-268/105-604	100
9	734-269/105-604	100
10	734-270/105-604	100
12	734-272/105-604	100

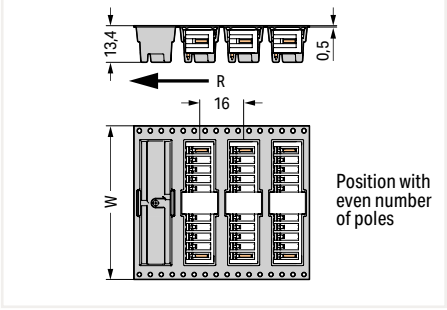
Pole No.	Tape width	Item No.	PU
2	32 mm	734-262/105-604/997-405	280
3	32 mm	734-263/105-604/997-405	280
4	32 mm	734-264/105-604/997-405	280
5	56 mm	734-265/105-604/997-407	280
6	56 mm	734-266/105-604/997-407	280
8	56 mm	734-268/105-604/997-407	280
9	56 mm	734-269/105-604/997-407	280
10	56 mm	734-270/105-604/997-407	280
12	72 mm	734-272/105-604/997-408	280



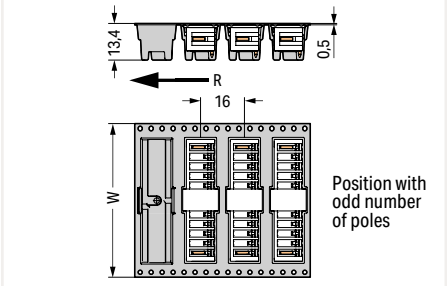
L = (pole no. – 1) x pin spacing + 5.9 mm



L = (pole no. – 1) x pin spacing + 5.9 mm



W = tape width
R = feed direction



W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

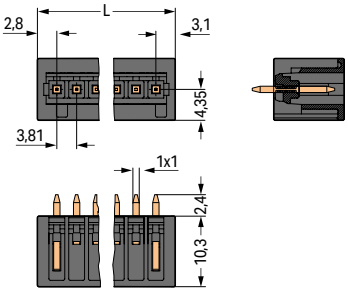
THR male header ▸ *MCS* MINI ▸ 734 Series
Pin spacing: 3.81 mm / 0.15 inch ▸ Color: black

Mating direction to the PCB: 90 °

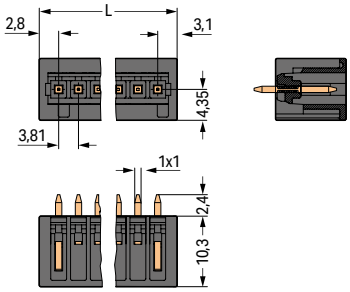
Suitable for automated assembly

Pole No.	Item No.	PU
2	734-232/105-604	200
3	734-233/105-604	200
4	734-234/105-604	200
5	734-235/105-604	200
6	734-236/105-604	100
8	734-238/105-604	100
9	734-239/105-604	100
10	734-240/105-604	100
12	734-242/105-604	100

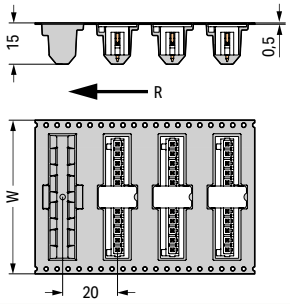
Pole No.	Tape width	Item No.	PU
2	32 mm	734-232/105-604/997-405	200
3	32 mm	734-233/105-604/997-405	200
4	32 mm	734-234/105-604/997-405	200
5	56 mm	734-235/105-604/997-407	200
6	56 mm	734-236/105-604/997-407	200
8	56 mm	734-238/105-604/997-407	200
10	56 mm	734-240/105-604/997-407	200
12	72 mm	734-242/105-604/997-408	200



L = (pole no. – 1) x pin spacing + 5.9 mm



L = (pole no. – 1) x pin spacing + 5.9 mm



W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

Operating tools
MCS MINI

Operating lever, for male and female connectors with CAGE CLAMP® connection		
Color	Item No.	PU (SPU)
○ natural	734-230	100 (25)
● black	734-191	100 (25)

Operating tool, for male and female connectors with CAGE CLAMP® connection		
Color	Item No.	PU (SPU)
○ natural	734-190	100 (25)
● black	734-231	100 (25)

Inserting a conductor via operating lever.

Conductor termination parallel to CAGE CLAMP® actuation

Conductor termination perpendicular to CAGE CLAMP® actuation

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Insulation Stop and Finger Guard
MCS MINI

Insulation stop, for conductor cross-sections from 0.08 … 0.2 mm² "s" (0.14 mm² "f-st") 8 pcs/strip, 3.5 mm pin spacing		
Color	Item No.	PU (SPU)
○ white	734-671	200 (25)

Finger guard, for THT male headers, 4-pole, 3.5/8.81 mm pin spacing		
Color	Item No.	PU (SPU)
● black	734-420	100 (25)

Conductors with small cross-sections are highly flexible, and they deform when pushed against the conductor stop in connectors. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all.
The solution: an insulation stop for CAGE CLAMP®-equipped 734 Series Male and Female Connectors.

Finger guards provide touch-proof protection (IP20).

Insert the finger guard into the male header to be protected.

Cut finger guard to the required number of poles.
Do not use single-pole covers!

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

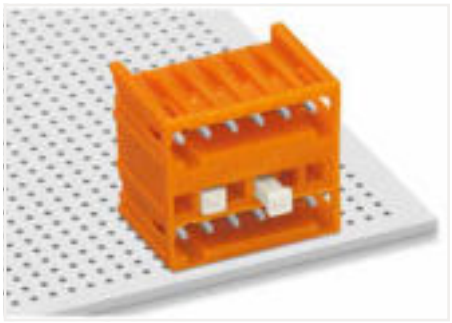
Coding Keys
MCS MINI

Coding key; for male headers; 3.5/3.81 mm pin spacing		
Color	Item No.	PU
○ white	734-130	100
● black*	734-159	100

*suitable for THR soldering

Coding key; for double-deck THT male headers; to be snapped in bottom level; 3.5/3.81 mm pin spacing		
Color	Item No.	PU
○ light gray	734-400	100

Coding a male header via snap-on coding keys.



Coding a THT double-deck male header – lower level.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

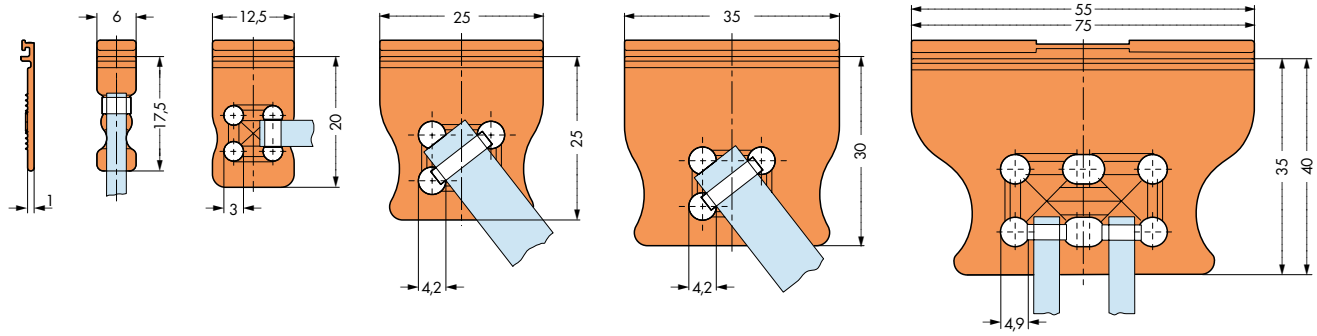
Strain Relief Plates
MCS MINI

Strain relief plate; for field assembly; for male and female connectors with CAGE CLAMP® and Push-in CAGE CLAMP® connection; light gray; 3.5 mm pin spacing			
Pole No.	Width	Item No.	PU (SPU)
2 … 3	6 mm	734-127	100 (25)
4 … 8	12.5 mm	734-128	100 (25)
9 … 12	25 mm	734-129	100 (25)
13 … 16	35 mm	734-126	100 (25)
17 … max.	55 mm	734-426	50 (25)

Strain relief plate; for field assembly; for male and female connectors with CAGE CLAMP® and Push-in CAGE CLAMP® connection; orange; 3.81 mm pin spacing			
Pole No.	Width	Item No.	PU (SPU)
2 … 3	6 mm	734-227	100 (25)
4 … 8	12.5 mm	734-228	100 (25)
9 … 12	25 mm	734-229	100 (25)
13 … 16	35 mm	734-226	100 (25)
17 … max.	55 mm	734-428	50 (25)

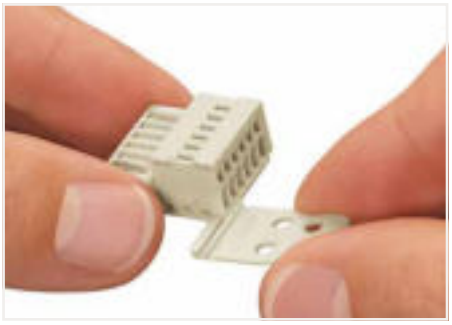
Strain relief plate; factory-assembled; for male and female connectors with CAGE CLAMP® and Push-in CAGE CLAMP® connection; light gray		
Pole No.	Width	Item No. Suffix *
2 … 3	6 mm	…/032-000
4 … 8	12.5 mm	…/033-000
9 … 12	25 mm	…/034-000
13 … 16	35 mm	…/035-000
17 … max.	55 mm	…/036-000

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.



The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.



Strain relief plate for field assembly

Sample order:
1-conductor female connector with push-buttons; 3.5 mm pin spacing; 8-pole; light gray; with strain relief plate: 2734-108/033-000

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Strain Relief Housings
MCS MINI

5

Snap-on type strain relief housing; consisting of strain relief support and housing; light gray; 3.5 mm pin spacing

Pole No.	Item No.	PU
2	734-602	50
3	734-603	25
4	734-604	25
5	734-605	25
6	734-606	25
7	734-607	25
8	734-608	25
9	734-609	25
10	734-610	25
11	734-611	25
12	734-612	25

Snap-on type strain relief housing; consisting of strain relief support and housing; orange; 3.81 mm pin spacing

Pole No.	Item No.	PU
2	734-632	50
3	734-633	25
4	734-634	25
5	734-635	25
6	734-636	25
8	734-638	25
9	734-639	25
10	734-640	25
12	734-642	25

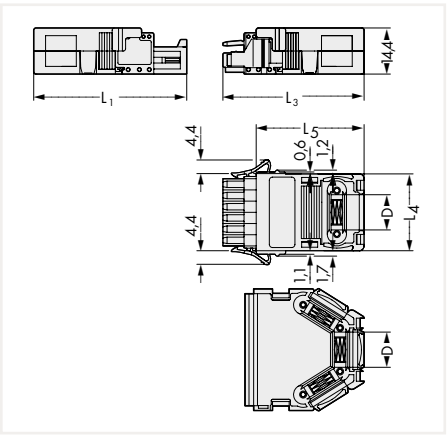
Cable clamp; for 6–12 pole strain relief

	Item No.	PU
	209-177	25

Mounting screws; for cable clamp

	Item No.	PU
	209-172	50

2- to 5-pole; only suitable for cable ties; 1 cable outlet (rear side); max. cable tie width 3.6 mm;
6- to 9-pole; suitable for cable clamp; 1 x cable outlet (rear side);
10- to 12-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side);
Removable built-in lockout caps



Strain Relief Housing Dimensions (in mm):

Pole No.	L_4 (3,5 mm)	L_4 (3,81 mm)	L_3	L_1	L_5	D
2	10.0	10.6	43.1	46.8	32.7	5.0
3	13.5	14.4	43.1	46.8	32.7	8.5
4	17.0	18.2	43.1	46.8	32.7	8.5
5	20.5	22.0	43.1	46.8	32.7	8.5
6	24.0	25.9	44.1	47.8	33.7	11.5
7	27.5	–	44.1	47.8	33.7	11.5
8	31.0	33.5	44.1	47.8	33.7	11.5
9	34.5	37.3	44.1	47.8	33.7	11.5
10	38.0	41.1	53.1	56.8	42.7	11.5
11	41.5	–	53.1	56.8	42.7	11.5
12	45.0	48.7	53.1	56.8	42.7	11.5

4-pole; 1-conductor female connector; with locking levers and strain relief housing (2- to 5-pole strain relief housing suitable only for cable ties)

8-pole; 1-conductor male connector; with strain relief housing (6- to 12-pole strain relief housings suitable for cable clamp)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Direct Marking
MCS MINI

5

The pole numbers of male and female connectors for CAGE CLAMP® termination can be marked via factory direct marking.

Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other custom marking options are available upon request.

Direct marking is not suitable for MCS PCB Male Headers. WAGO recommends pole marking on the PCB for these headers.

Female headers with solder pins are exposed to aggressive flux agents during wave soldering. Select direct marking procedures are available upon request for these items.

The marking type is always defined by the second 4-digit block of the item no. suffix for items with standard colors and materials.
Example: 734-106/. . . . - xxxx
xxxx = Item no. suffix for direct marking

Direct marking of 1-conductor female connectors, perpendicular to conductor entry, 1 … pole no., item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-cond. female connector, 6-pole, light gray	**734-106/000-047**
1-cond. female connector, with locking levers, 6-pole, light gray	**734-106/037-047**
1-cond. female connector, with strain relief plate, 6-pole, light gray	**734-106/033-047**
1-cond. female connector, with locking levers and strain relief plate, 6-pole, light gray	**734-106/037-047/033-000**

Direct marking of 1-conductor male connectors, perpendicular to conductor entry, pole no. … 1, item no. suffix.: /. . . - 044	
Version	**Item No. Example**
1-cond. male connector, 6-pole, light gray	**734-306/000-044**
1-cond. male connector, with mounting flanges, 6-pole, light gray	**734-306/019-044**
1-cond. male connector, with mounting flanges and strain relief plate, 6-pole, light gray	**734-306/019-044/033-000**

Direct marking of 1-conductor female connectors, parallel to conductor entry, 1 … pole no., item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-cond. female connector, 6-pole, light gray	**734-106/000-9037**
1-cond. female connector, with locking levers, 6-pole, light gray	**734-106/037-9037**
1-cond. female connector, with strain relief plate, 6-pole, light gray	**734-106/033-9037**
1-cond. female connector, with locking levers and strain relief plate, 6-pole, light gray	**734-106/037-9037/033-000**

Direct marking of 1-conductor male connectors, parallel to conductor entry, pole no. … 1, item no. suffix.: /. . . - 9034	
Version	**Item No. Example**
1-cond. male connector, 6-pole, light gray	**734-306/000-9034**
1-cond. male connector, with mounting flanges, 6-pole, light gray	**734-306/019-9034**
1-cond. male connector, with mounting flanges and strain relief plate, 6-pole, light gray	**734-306/019-9034/033-000**

Direct Marking
MCS MINI

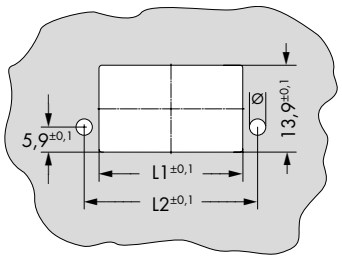
Direct marking of 1-conductor female connectors with, push-buttons, perpendicular to conductor entry, 1 … pole no., item no. suffix.: /. . . - 047	
Version	Item No. Example
1-conductor female connector, with push-buttons, 6-pole, light gray	**2734-106/000-047**
1-conductor female connector, with push-buttons and locking levers, 6-pole, light gray	**2734-106/037-047**
1-conductor female connector, with push-buttons and strain relief plate, 6-pole, light gray	**2734-106/033-047**
1-conductor female connector, with push-buttons, locking levers and strain relief plate, 6-pole, light gray	**2734-106/037-047/033-0000**

Direct marking of 2-conductor combi strips, perpendicular to conductor entry, 1 … pole no., item no. suffix.: /. . . - 047	
Version	Item No. Example
2-conductor combi strip, 6-pole, light gray	**734-366/000-047**
2-conductor combi strip, with locking levers, 6-pole, light gray	**734-366/037-047**
2-conductor combi strip, with locking levers and strain relief plate, 6-pole, light gray	**734-366/037-047/033-000**

Direct marking of 1-conductor female connectors with, push-buttons, parallel to conductor entry, 1 … pole no., item no. suffix.: /. . . - 9037	
Version	Item No. Example
1-conductor female connector, with push-buttons, 6-pole, light gray	**2734-106/000-9037**
1-conductor female connector, with push-buttons and locking levers, 6-pole, light gray	**2734-106/037-9037**
1-conductor female connector, with push-buttons and strain relief plate, 6-pole, light gray	**2734-106/033-9037**
1-conductor female connector, with push-buttons, locking levers and strain relief plate, 6-pole, light gray	**2734-106/037-9037/033-000**

Direct marking of 2-conductor combi strips, parallel to conductor entry, 1 … pole no., item no. suffix.: /. . . - 9037	
Version	Item No. Example
2-conductor combi strip, 6-pole, light gray	**734-366/000-9037**
2-conductor combi strip, with locking levers, 6-pole, light gray	**734-366/037-9037**
2-conductor combi strip, with locking levers and strain relief plate, 6-pole, light gray	**734-366/037-9037/033-000**

Cutout Dimensions
MCS MINI



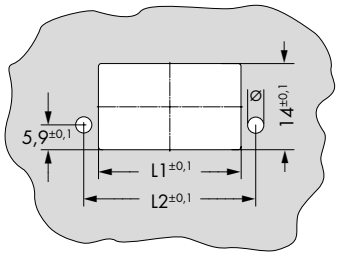


Table 1
Cutout for male connectors
with mounting flanges (734 Series)

	Pin Spacing: 3.5 mm		Pin Spacing: 3.81 mm	
Pole No.	L1	L2	L1	L2
2	9.8	15.5	10 1	16.1
3	13.3	19	13.9	19.9
4	16.8	22.5	17.7	23.7
5	20.3	26	21.5	27.6
6	24	29.4	25.6	31.3
7	27.5	32.9	29.4	35.1
8	31	36.4	33.2	38.9
9	34.5	39.9	37	42.7
10	38	43.4	40.8	46.5
11	41.5	46.9	44.6	50.3
12	45	50.4	48.4	54.1
13	48.8	53.8	52.5	57.8
14	52.3	57.3	56.3	61.6
15	55.8	60.8	60.1	65.5
16	59.3	64.3	64	69.3
17	62.8	67.8	67.8	73.1
18	66.3	71.3	71.6	76.9
19	69.9	74.7	75.5	80.6
20	73.4	78.2	79.3	84.4
21	76.9	81.7	83.1	88.2
22	80.4	85.2	86.9	92
23	83.9	88.7	90.7	95.8
24	87.4	92.2	94.5	99.6

Table 2
Cutout for female connectors
with mounting flanges (2734 Series)

	Pin Spacing: 3.5 mm		Pin Spacing: 3.81 mm	
Pole No.	L1	L2	L1	L2
2	10.4	15.5	11	16.1
3	13.9	19	14.8	19.9
4	17.4	22.5	18.6	23.7
5	20.9	26	22.5	27.6
6	24.6	29.4	26.5	31.3
7	28.1	32.9	30.3	35.1
8	31.6	36.4	34.1	38.9
9	35.1	39.9	37.9	42.7
10	38.6	43.4	41.7	46.5
11	42.1	46.9	45.5	50.3
12	45.6	50.4	49.3	54.1
13	49.4	53.8	53.4	57.8
14	52.9	57.3	57.2	61.6
15	56.4	60.8	61.1	65.5
16	59.9	64.3	64.9	69.3
17	63.4	67.8	68.7	73.1
18	66.9	71.3	72.5	76.9
19	70.5	74.7	76.4	80.6
20	74	78.2	80.2	84.4
21	77.5	81.7	84	88.2
22	81	85.2	87.8	92
23	84.5	88.7	91.6	95.8
24	88	92.2	95.4	99.6

Self-tapping screws
for 1.8 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	Pack. Unit
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	Pack. Unit
M 2 x 12 mm	**231-195**	200 (100)

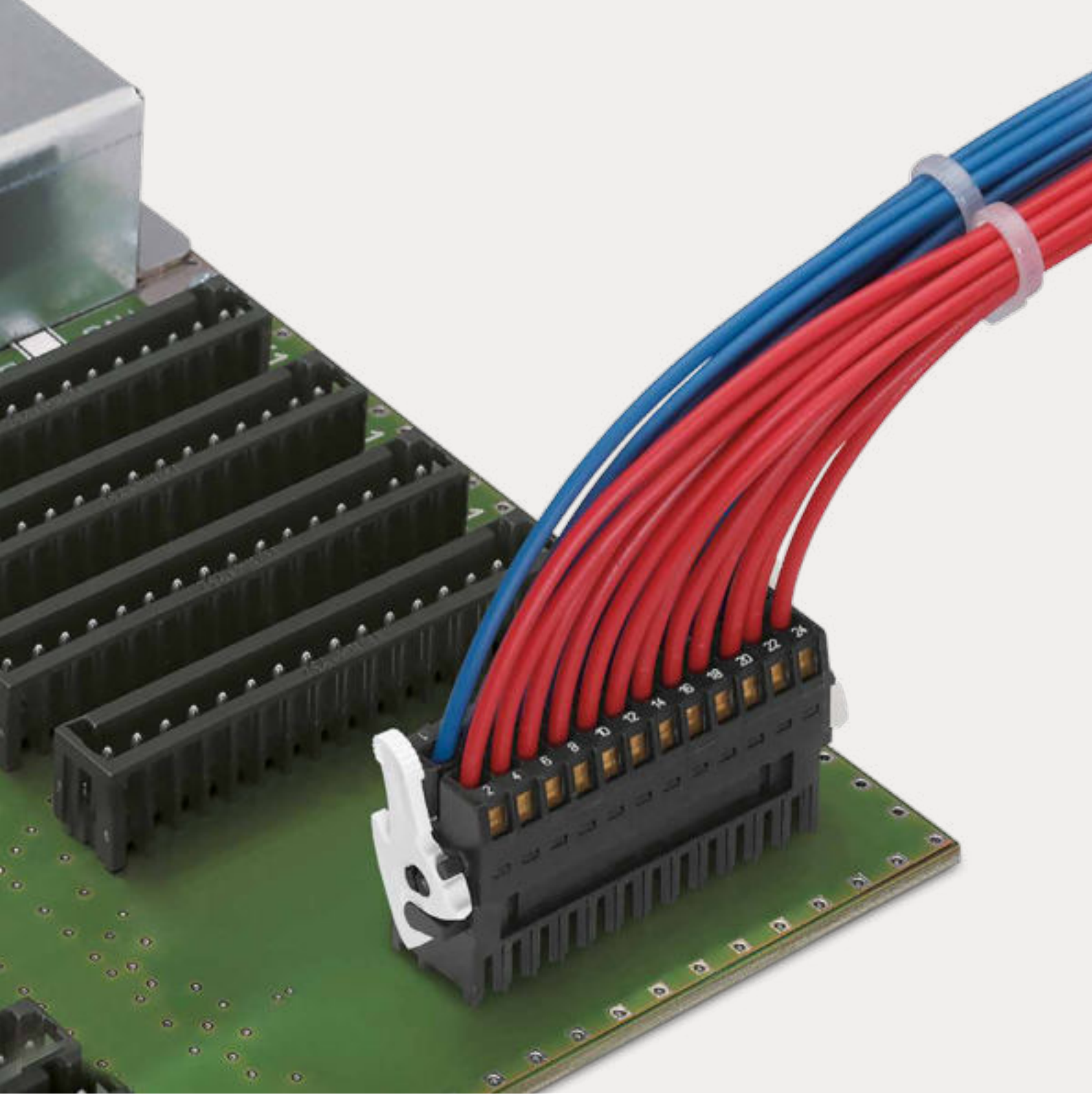
Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	Pack. Unit
M 2.5 x 10 mm	**231-295**	200 (100)

Dimensions (in mm)
Drilled hole Ø depends on the type of screw used (see mounting screws).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.



WAGO *MULTI CONNECTION SYSTEM*
MINI HD

WAGO *MULTI CONNECTION SYSTEM* MINI HD
Pin Spacing: 3.5 mm / Nominal Cross-Section: 1.5 mm²

		Page
	MCS MINI HD 1-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	428
	MCS MINI HD THT Male Header, 2-Rows	430
	THR Male Header, 2-Rows	436
	MCS MINI HD Accessories	444
	Accessories and Tools	861

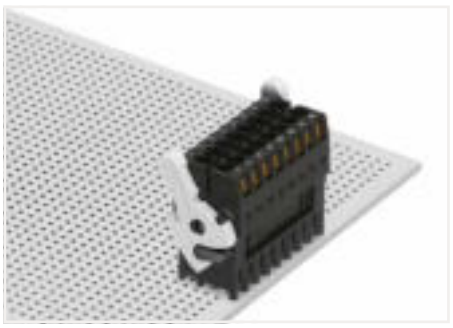
6

CAGE CLAMP®

MCS MINI HD
Description and Installation

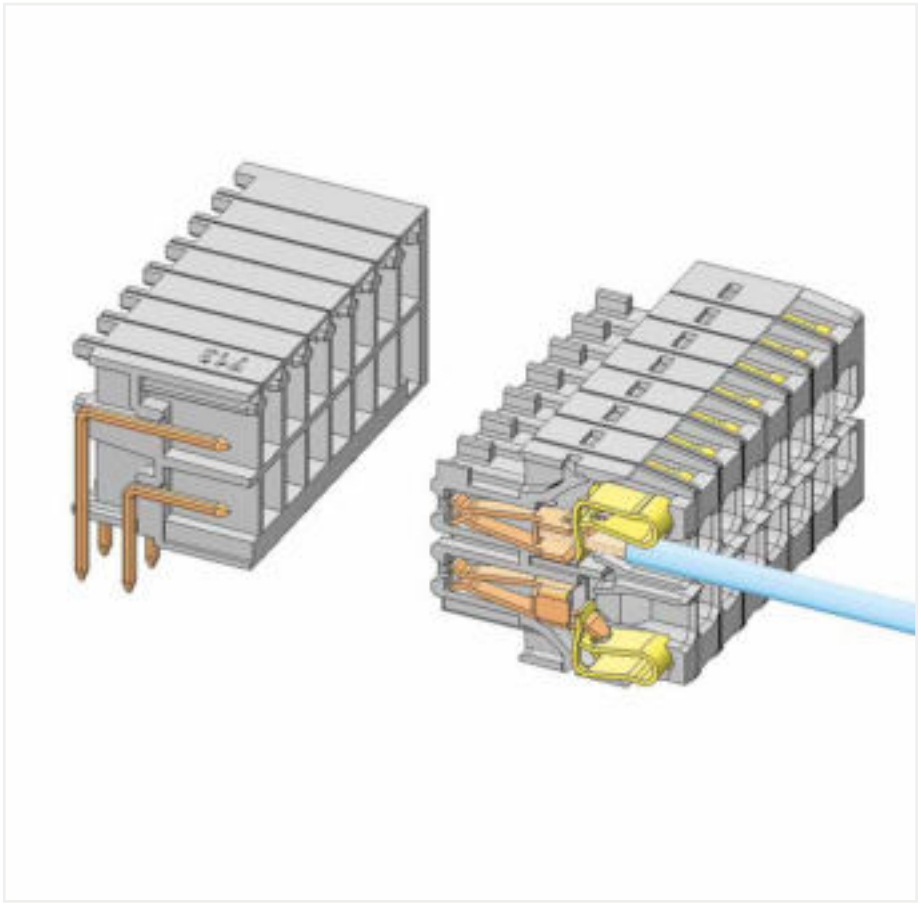
Centered strain relief plate anchors conductors for easy disconnection.

Inserting a conductor via (2.5 x 0.4) mm screwdriver.



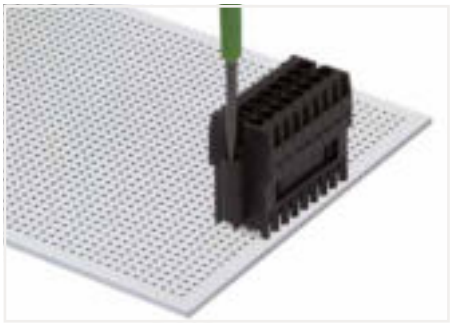
Lever as a lock – when closed, female connector is locked.

6



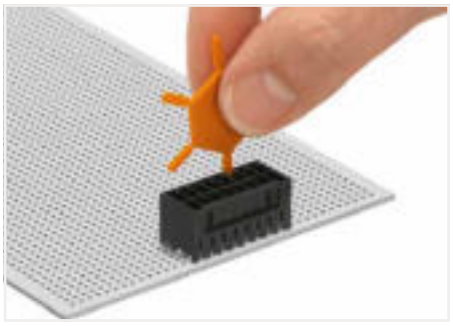
Pin spacing: 3.5 mm

Lever as a disconnection aid – when opened, female connector is disconnected.
Rotating the lever lifts the female connector out of the male header.



Screw interlock can only be disconnected using a tool.

Pole marking via self-adhesive strips or direct marking.

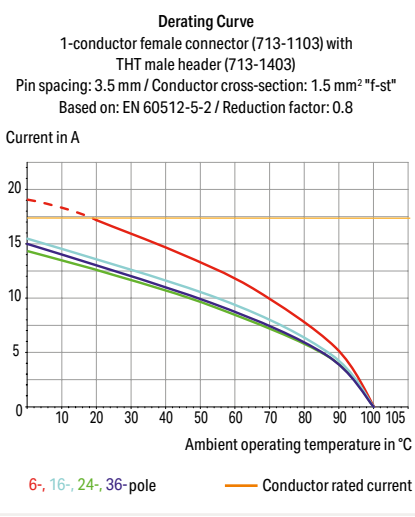


Coding a male header by inserting a coding pin.

Coding a female connector by removing coding finger(s).

1-conductor female connector, 2-row ▶ *MCS* MINI HD ▶ 713 Series
Pin spacing: 3.5 mm / 0.138 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Color: black

- Universal connection for all conductor types
- Unique, compact, double-row connector system for conductor cross-sections up to 1.5 mm²
- High-density, wire-to-board connections in very confined spaces
- Centered strain relief plate anchors conductors, while acting as convenient connection and disconnection handle. It also provides easy access to operating slots – even when wired.
- Coding fingers provide 100% protection against mismating



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	80 V	160 V	250 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	50 V	-	
Rated current	10 A	10 A	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	-	
Rated current	10 A	-	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 16 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	II
Insulation material	Glass fiber-reinforced polyamide (PA66 GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Strain relief	Page 444
Tool	Page 870
Direct marking	Page 446

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female connector, 2-row ▸ *MCS* MINI HD ▸ 713 Series
Pin spacing: 3.5 mm / 0.138 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: black

	Locking of plug-in connection: Screw flange	Locking of plug-in connection: Locking lever

713-1108

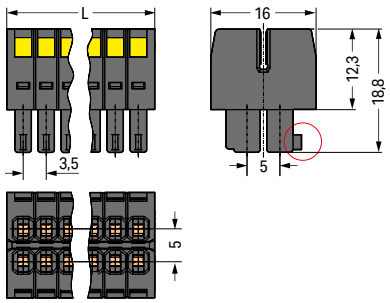
Pole No.	Item No.	PU
6	713-1103	100
8	713-1104	50
10	713-1105	50
12	713-1106	50
14	713-1107	50
16	713-1108	25
18	713-1109	25
20	713-1110	25
22	713-1111	25
24	713-1112	25
26	713-1113	25
28	713-1114	20
30	713-1115	20
32	713-1116	20
34	713-1117	20
36	713-1118	20

713-1108/107-000

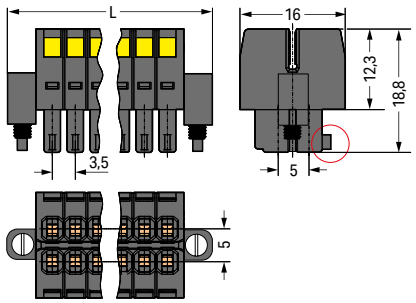
Pole No.	Item No.	PU
6	713-1103/107-000	50
8	713-1104/107-000	50
10	713-1105/107-000	25
12	713-1106/107-000	25
14	713-1107/107-000	25
16	713-1108/107-000	25
18	713-1109/107-000	25
20	713-1110/107-000	20
22	713-1111/107-000	20
24	713-1112/107-000	20
26	713-1113/107-000	20
28	713-1114/107-000	20
30	713-1115/107-000	20
32	713-1116/107-000	10
34	713-1117/107-000	10
36	713-1118/107-000	10

713-1108/037-000

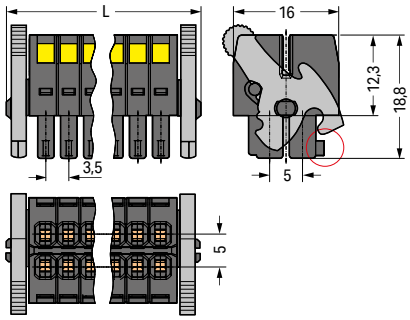
Pole No.	Item No.	PU
6	713-1103/037-000	50
8	713-1104/037-000	50
10	713-1105/037-000	50
12	713-1106/037-000	25
14	713-1107/037-000	25
16	713-1108/037-000	25
18	713-1109/037-000	25
20	713-1110/037-000	25
22	713-1111/037-000	20
24	713-1112/037-000	20
26	713-1113/037-000	20
28	713-1114/037-000	20
30	713-1115/037-000	20
32	713-1116/037-000	20
34	713-1117/037-000	10
36	713-1118/037-000	10



L = [(pole no./2) – 1] x pin spacing + 5.2 mm
Coding finger (red circle)



L = [(pole no./2) – 1] x pin spacing + 13.6 mm
Coding finger (red circle)



L = [(pole no./2) – 1] x pin spacing + 12.2 mm
Coding finger (red circle)

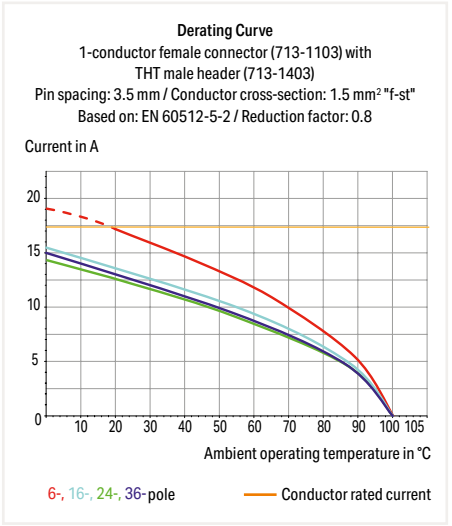
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT male header, 2-row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

- Male headers may be mounted horizontally or vertically via straight or angled solder pins
- Header housing is molded of THT-compatible insulation material for lead-free reflow soldering
- Separated pin slots prevent damage and make the headers touch-proof when unplugged
- 100% protected against mismating
- Coding option available



6

Electrical Data				
Ratings per		IEC/EN 60664-1		
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	80 V	160 V	250 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per		UL 1059		
Use group	B	C	D	
Rated voltage	150 V	50 V	-	
Rated current	10 A	10 A	-	
Approbations per		CSA		
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	12 A	-	-	

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	3.8 mm
Solder pin dimensions	0.8 x 0.8 mm
Drilled hole diameter with tolerance	1.2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 444

See technical section for further information

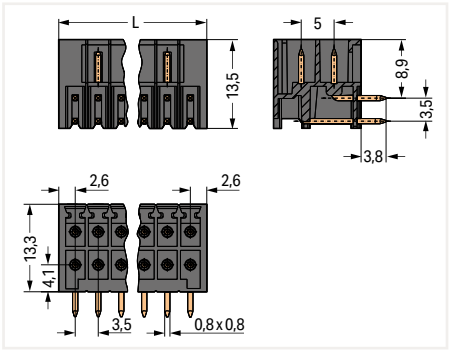
For approvals and corresponding ratings, visit www.wago.com

THT male header, 2-row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Mating direction to the PCB: 0 °

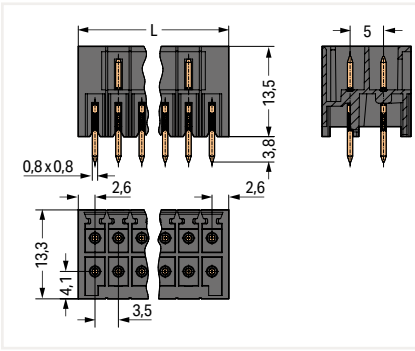
Pole No.	Item No.	PU
6	713-1423	100
8	713-1424	50
10	713-1425	50
12	713-1426	50
14	713-1427	50
16	713-1428	25
18	713-1429	25
20	713-1430	25
22	713-1431	25
24	713-1432	25
26	713-1433	25
28	713-1434	20
30	713-1435	20
32	713-1436	20
34	713-1437	20
36	713-1438	20



L = [(pole no./2) – 1] x pin spacing + 5.2 mm

Mating direction to the PCB: 90 °

Pole No.	Item No.	PU
6	713-1403	100
8	713-1404	50
10	713-1405	50
12	713-1406	50
14	713-1407	50
16	713-1408	25
18	713-1409	25
20	713-1410	25
22	713-1411	25
24	713-1412	25
26	713-1413	25
28	713-1414	20
30	713-1415	20
32	713-1416	20
34	713-1417	20
36	713-1418	20



L = [(pole no./2) – 1] x pin spacing + 5.2 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0 °

Pole No.	Item No.	PU
6	713-1423/107-000	50
8	713-1424/107-000	50
10	713-1425/107-000	25
12	713-1426/107-000	25
14	713-1427/107-000	25
16	713-1428/107-000	25
18	713-1429/107-000	25
20	713-1430/107-000	20
22	713-1431/107-000	20
24	713-1432/107-000	20
26	713-1433/107-000	20
28	713-1434/107-000	20
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32	713-1436/107-000	10
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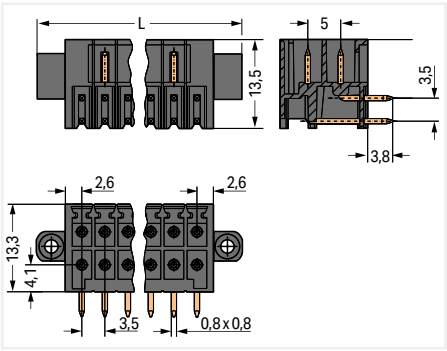
36	713-1438/107-000	10



L = [(pole no./2) – 1] x pin spacing + 13.6 mm

6

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

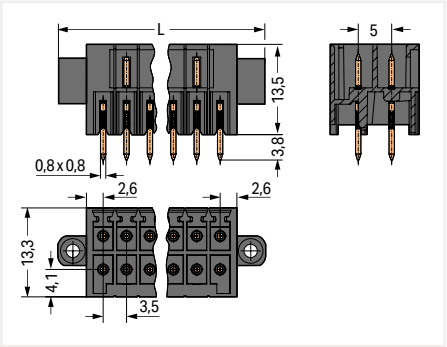
- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THT male header, 2-row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90 °

Pole No.	Item No.	PU
6	713-1403/107-000	50
8	713-1404/107-000	50
10	713-1405/107-000	25
12	713-1406/107-000	25
14	713-1407/107-000	25
16	713-1408/107-000	25
18	713-1409/107-000	25
20	713-1410/107-000	20
22	713-1411/107-000	20
24	713-1412/107-000	20
26	713-1413/107-000	20
28	713-1414/107-000	20
30	713-1415/107-000	20
32	713-1416/107-000	10
34	713-1417/107-000	10
36	713-1418/107-000	10



L = [(pole no./2) – 1] x pin spacing + 13.6 mm

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

Pole No.	Item No.	PU
6	713-1423/037-000	50
8	713-1424/037-000	50
10	713-1425/037-000	50
12	713-1426/037-000	25
14	713-1427/037-000	25
16	713-1428/037-000	25
18	713-1429/037-000	25
20	713-1430/037-000	25
22	713-1431/037-000	20
24	713-1432/037-000	20
26	713-1433/037-000	20
28	713-1434/037-000	20
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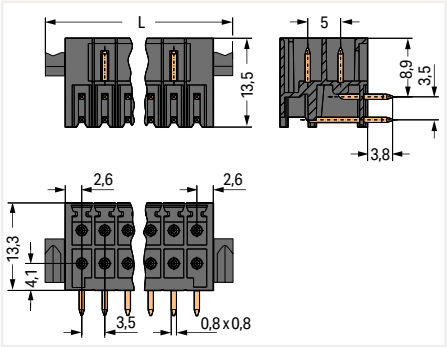
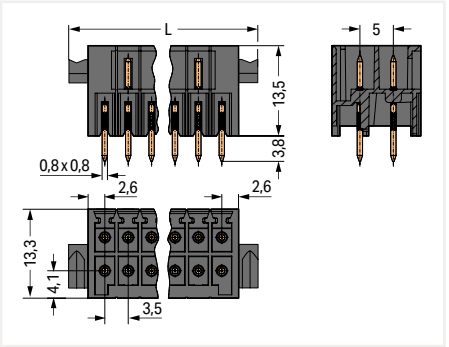
32	713-1436/037-000	20
34	713-1437/037-000	10
36	713-1438/037-000	10



L = [(pole no./2) – 1] x pin spacing + 11.6 mm

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

Pole No.	Item No.	PU
6	713-1403/037-000	50
8	713-1404/037-000	50
10	713-1405/037-000	50
12	713-1406/037-000	25
14	713-1407/037-000	25
16	713-1408/037-000	25
18	713-1409/037-000	25
20	713-1410/037-000	25
22	713-1411/037-000	20
24	713-1412/037-000	20
26	713-1413/037-000	20
28	713-1414/037-000	20
30	713-1415/037-000	20
32	713-1416/037-000	20
34	713-1417/037-000	10
36	713-1418/037-000	10



L = [(pole no./2) – 1] x pin spacing + 11.6 mm

6

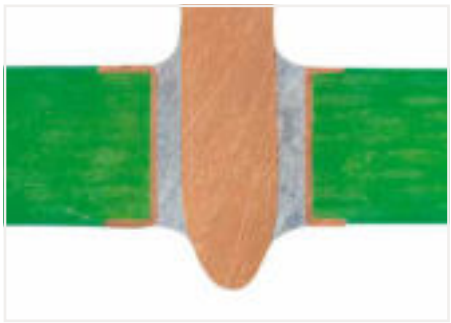
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

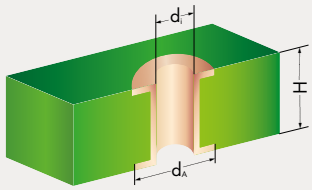
THR (Through-Hole Reflow) Soldering Process

By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.



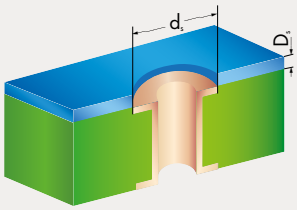
Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.

1



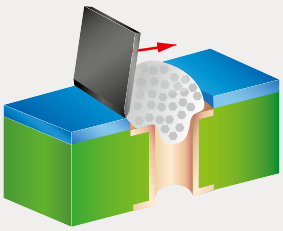
Metal-plated PCB bore hole

2



SMD positioning pattern

3



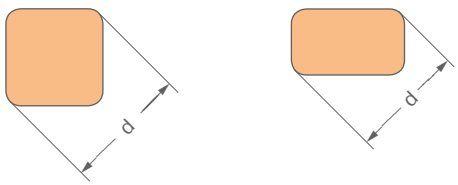
Solder paste application

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1.1^{+0.1}$	1.9	< 2	1.8	150	0.9	2.8
231 (1 x 1 mm)	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
231 (1.2 x 1.2 mm)	$1.7^{+0.1}$	2.8	< 2	2.7	150	1.5	2.4
236	$1.1^{+0.1}$	2.2	< 2	2.1	150	0.9	3.6
250	$1.1^{+0.1}$	2.0	< 2	1.9	150	0.9	2.4
713	$1.0^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
733	$1.2^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
734	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
2060	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	2.4
2061	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	1.5 / 2.4
2086	$1.0^{+0.1}$	2.0	< 2	1.9	150	0.85	1.5 / 2.4

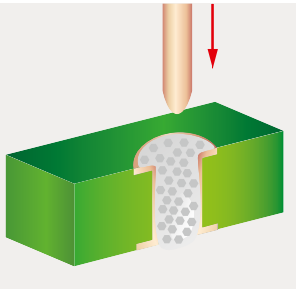
d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Solder pin form

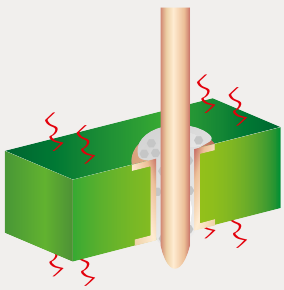


4



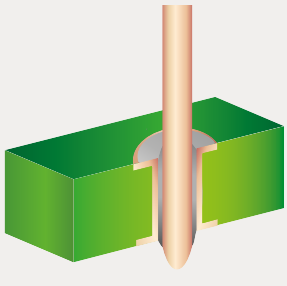
Component assembly, automatic/by hand

5



Reflow soldering process

6

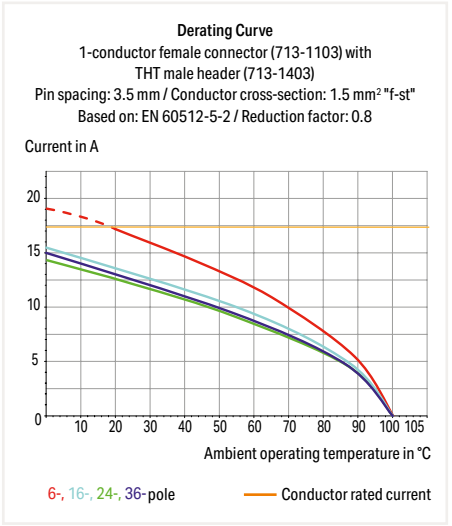


THR soldering joint

THR male header, 2-row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Separated pin slots prevent damage and make the headers touch-proof when unplugged
- 100% protected against mismating
- Coding option available



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	80 V	160 V	250 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	150 V	50 V	-	
Rated current	10 A	10 A	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	12 A	-	-	

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	0.8 x 0.8 mm
Plated through-hole diameter (THR)	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering	Page 434
Coding	Page 444

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header, 2-row ▶ *MCS* MINI HD ▶ 713 Series

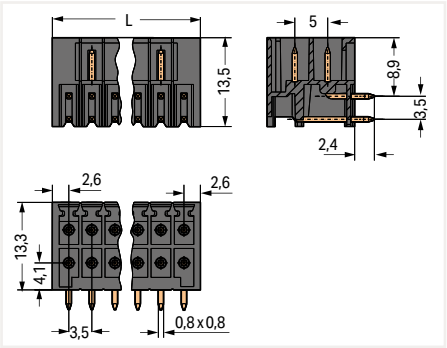
Pin spacing: 3.5 mm / 0.138 inch ▶ Solder pin dimensions: 0.8 x 0.8 mm ▶ Color: black

Mating direction to the PCB: 0 °

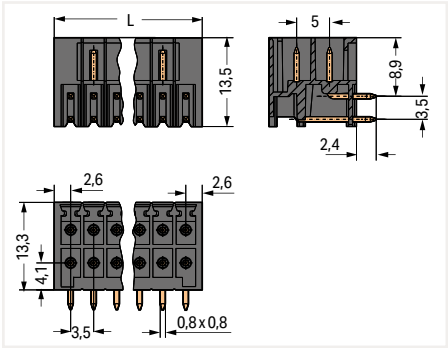
Suitable for automated assembly

Pole No.	Item No.	PU
6	713-1423/105-000	100
8	713-1424/105-000	50
10	713-1425/105-000	50
12	713-1426/105-000	50
14	713-1427/105-000	50
16	713-1428/105-000	25
18	713-1429/105-000	25
20	713-1430/105-000	25
22	713-1431/105-000	25
24	713-1432/105-000	25
26	713-1433/105-000	25
28	713-1434/105-000	20
30	713-1435/105-000	20
32	713-1436/105-000	20
34	713-1437/105-000	20
36	713-1438/105-000	20

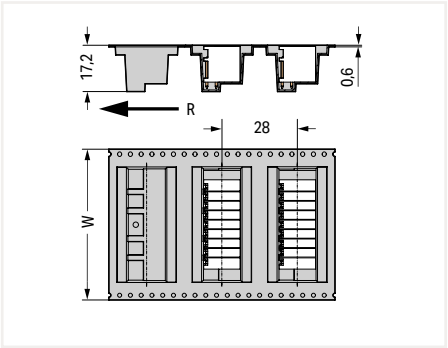
Pole No.	Tape width	Item No.	PU
6	32 mm	713-1423/105-000/997-405	120
8	32 mm	713-1424/105-000/997-405	120
10	32 mm	713-1425/105-000/997-405	120
12	44 mm	713-1426/105-000/997-406	120
14	44 mm	713-1427/105-000/997-406	120
16	44 mm	713-1428/105-000/997-406	120
18	56 mm	713-1429/105-000/997-407	120
20	56 mm	713-1430/105-000/997-407	120
22	56 mm	713-1431/105-000/997-407	120
24	72 mm	713-1432/105-000/997-408	120
26	72 mm	713-1433/105-000/997-408	120
28	72 mm	713-1434/105-000/997-408	120
30	72 mm	713-1435/105-000/997-408	120
32	72 mm	713-1436/105-000/997-408	120
34	88 mm	713-1437/105-000/997-409	120
36	88 mm	713-1438/105-000/997-409	120



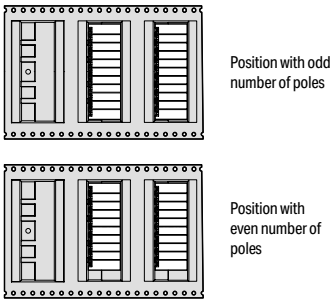
L = [(pole no./2) – 1] x pin spacing + 5.2 mm



L = [(pole no./2) – 1] x pin spacing + 5.2 mm



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THR male header, 2-row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Mating direction to the PCB: 90 °

Suitable for automated assembly

Pole No.	Item No.	PU
6	713-1403/105-000	100
8	713-1404/105-000	50
10	713-1405/105-000	50
12	713-1406/105-000	50
14	713-1407/105-000	50
16	713-1408/105-000	25
18	713-1409/105-000	25
20	713-1410/105-000	25
22	713-1411/105-000	25
24	713-1412/105-000	25
26	713-1413/105-000	25
28	713-1414/105-000	20
30	713-1415/105-000	20
32	713-1416/105-000	20
34	713-1417/105-000	20
36	713-1418/105-000	20

Pole No.	Tape width	Item No.	PU
6	32 mm	713-1403/105-000/997-405	120
8	32 mm	713-1404/105-000/997-405	120
10	32 mm	713-1405/105-000/997-405	120
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14	44 mm	713-1407/105-000/997-406	120
16	44 mm	713-1408/105-000/997-406	120
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20	56 mm	713-1410/105-000/997-407	120
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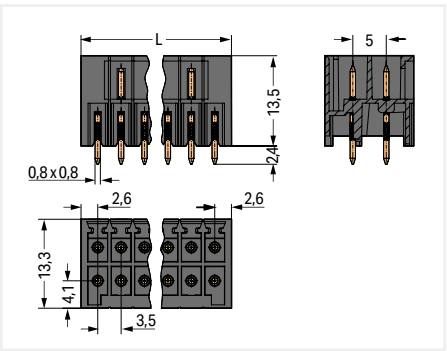
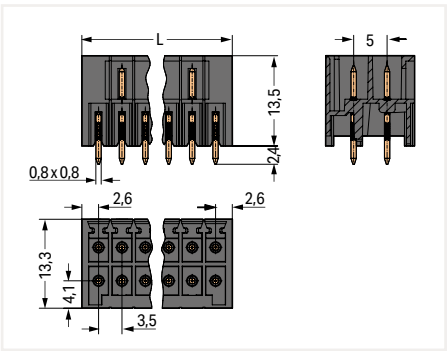
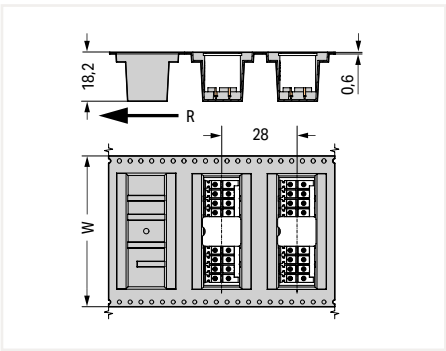
30	72 mm	713-1415/105-000/997-408	120
32	72 mm	713-1416/105-000/997-408	120
34	88 mm	713-1417/105-000/997-409	120
36	88 mm	713-1418/105-000/997-409	120



L = [(pole no./2) – 1] x pin spacing + 5.2 mm



L = [(pole no./2) – 1] x pin spacing + 5.2 mm



W = tape width
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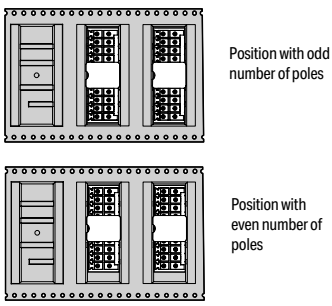

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- Gold-plated or partially gold-plated contact surfaces

THR male header, 2-row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0 °

Suitable for automated assembly

Pole No.	Item No.	PU
6	713-1423/117-000	50
8	713-1424/117-000	50
10	713-1425/117-000	25
12	713-1426/117-000	25
14	713-1427/117-000	25
16	713-1428/117-000	25
18	713-1429/117-000	25
20	713-1430/117-000	20
22	713-1431/117-000	20
24	713-1432/117-000	20
26	713-1433/117-000	20
28	713-1434/117-000	20
30	713-1435/117-000	20
32	713-1436/117-000	10
34	713-1437/117-000	10
36	713-1438/117-000	10

Pole No.	Tape width	Item No.	PU
6	32 mm	713-1423/117-000/997-405	120
8	44 mm	713-1424/117-000/997-406	120
10	44 mm	713-1425/117-000/997-406	120
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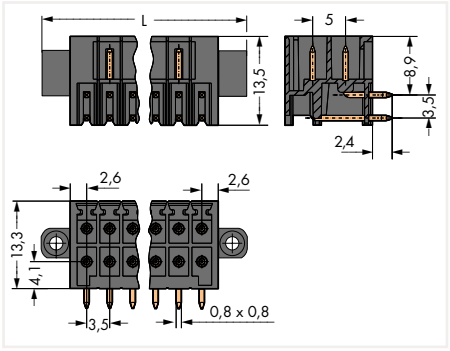
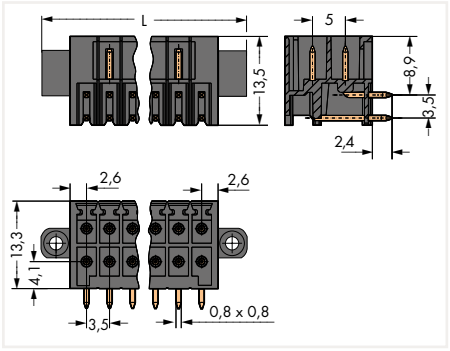
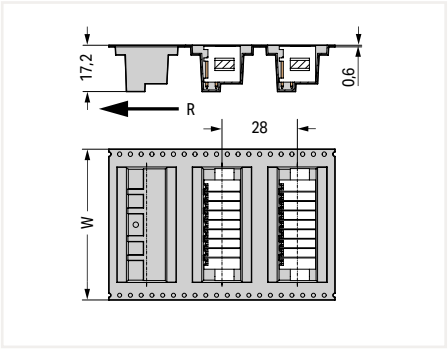
36	88 mm	713-1438/117-000/997-409	120



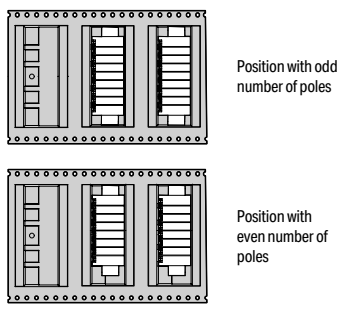
L = [(pole no./2) – 1] x pin spacing + 13.6 mm



L = [(pole no./2) – 1] x pin spacing + 13.6 mm



W = tape width
R = feed direction



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20	713-1410/117-000	20
22	713-1411/117-000	20
24	713-1412/117-000	20
26	713-1413/117-000	20
28	713-1414/117-000	20
30	713-1415/117-000	20
32	713-1416/117-000	10
34	713-1417/117-000	10
36	713-1418/117-000	10

Pole No.	Tape width	Item No.	PU
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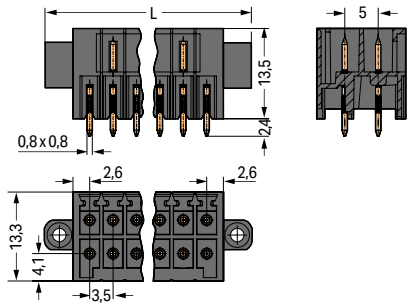
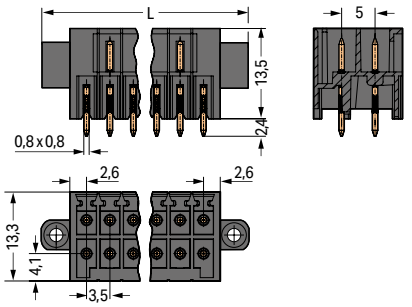
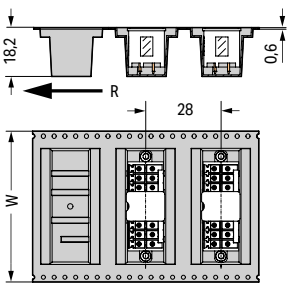


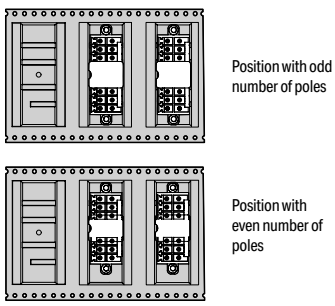
L = [(pole no./2) – 1] x pin spacing + 13.6 mm



L = [(pole no./2) – 1] x pin spacing + 13.6 mm



W = tape width
R = feed direction



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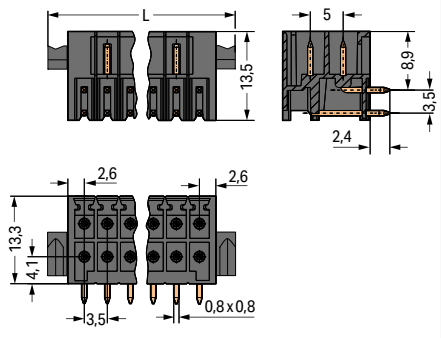
Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

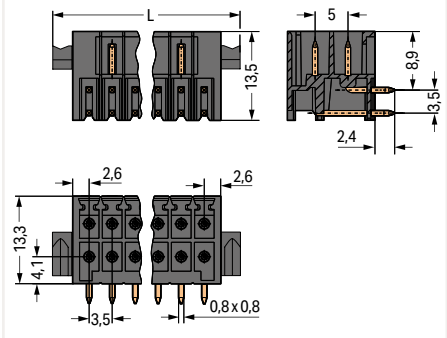
Suitable for automated assembly

Pole No.	Item No.	PU
6	713-1423/116-000	50
8	713-1424/116-000	50
10	713-1425/116-000	50
12	713-1426/116-000	50
14	713-1427/116-000	50
16	713-1428/116-000	25
18	713-1429/116-000	25
20	713-1430/116-000	25
22	713-1431/116-000	20
24	713-1432/116-000	20
26	713-1433/116-000	20
28	713-1434/116-000	20
30	713-1435/116-000	20
32	713-1436/116-000	20
34	713-1437/116-000	10
36	713-1438/116-000	10

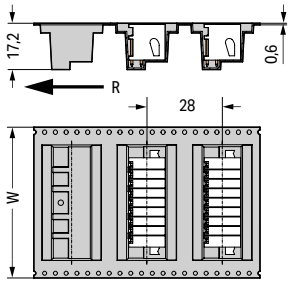
Pole No.	Tape width	Item No.	PU
6	32 mm	713-1423/116-000/997-405	120
8	44 mm	713-1424/116-000/997-406	120
10	44 mm	713-1425/116-000/997-406	120
12	44 mm	713-1426/116-000/997-406	120
14	56 mm	713-1427/116-000/997-407	120
16	56 mm	713-1428/116-000/997-407	120
18	56 mm	713-1429/116-000/997-407	120
20	72 mm	713-1430/116-000/997-408	120
22	72 mm	713-1431/116-000/997-408	120
24	72 mm	713-1432/116-000/997-408	120
26	72 mm	713-1433/116-000/997-408	120
28	72 mm	713-1434/116-000/997-408	120
30	88 mm	713-1435/116-000/997-409	120
32	88 mm	713-1436/116-000/997-409	120
34	88 mm	713-1437/116-000/997-409	120
36	88 mm	713-1438/116-000/997-409	120



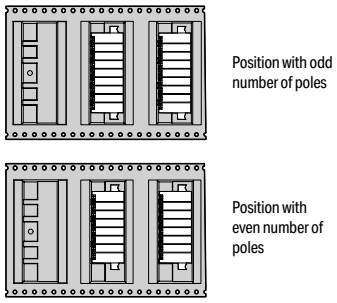
L = [(pole no./2) – 1] x pin spacing + 11.6 mm



L = [(pole no./2) – 1] x pin spacing + 11.6 mm



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THR male header, 2-row ▸ *MCS* MINI HD ▸ 713 Series

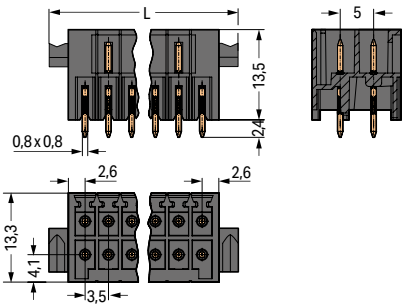
Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

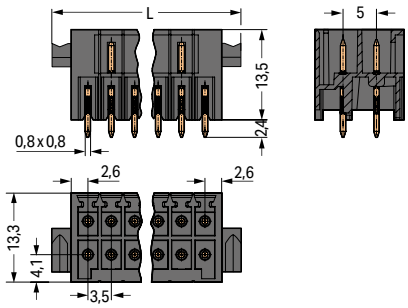
Suitable for automated assembly

Pole No.	Item No.	PU
6	713-1403/116-000	50
8	713-1404/116-000	50
10	713-1405/116-000	50
12	713-1406/116-000	25
14	713-1407/116-000	25
16	713-1408/116-000	25
18	713-1409/116-000	25
20	713-1410/116-000	25
22	713-1411/116-000	20
24	713-1412/116-000	20
26	713-1413/116-000	20
28	713-1414/116-000	20
30	713-1415/116-000	20
32	713-1416/116-000	20
34	713-1417/116-000	10
36	713-1418/116-000	10

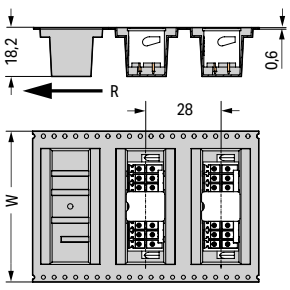
Pole No.	Tape width	Item No.	PU
6	32 mm	713-1403/116-000/997-405	120
8	44 mm	713-1404/116-000/997-406	120
10	44 mm	713-1405/116-000/997-406	120
12	44 mm	713-1406/116-000/997-406	120
14	56 mm	713-1407/116-000/997-407	120
16	56 mm	713-1408/116-000/997-407	120
18	56 mm	713-1409/116-000/997-407	120
20	72 mm	713-1410/116-000/997-408	120
22	72 mm	713-1411/116-000/997-408	120
24	72 mm	713-1412/116-000/997-408	120
26	72 mm	713-1413/116-000/997-408	120
28	72 mm	713-1414/116-000/997-408	120
30	88 mm	713-1415/116-000/997-409	120
32	88 mm	713-1416/116-000/997-409	120
34	88 mm	713-1417/116-000/997-409	120
36	88 mm	713-1418/116-000/997-409	120



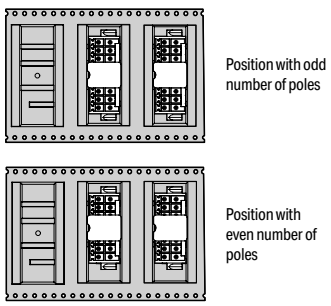
L = [(pole no./2) – 1] x pin spacing + 11.6 mm



L = [(pole no./2) – 1] x pin spacing + 11.6 mm



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

Strain Relief Plates
MCS MINI HD

Strain relief plate; for field assembly; for female connectors with CAGE CLAMP® connection; black

Pole No.	Width	Item No.	PU (SPU)
6 … 8	11 mm	713-126	100 (25)
10 … 12	18 mm	713-130	100 (25)
14 … 20	24 mm	713-127	100 (25)
22 … 28	39 mm	713-128	100 (25)
30 … 36	53 mm	713-129	100 (25)

Strain relief plate; pre-assembled; for female connectors with CAGE CLAMP® connection; black

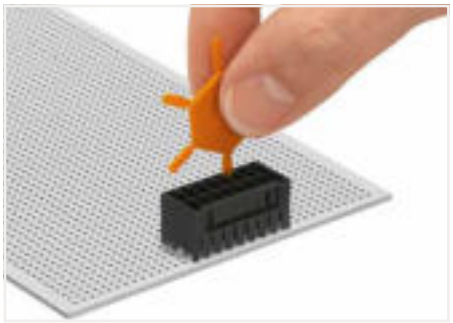
Pole No.	Width	Item no. suffix *
6 … 8	11 mm	… /032-000
10 … 12	18 mm	… /036-000
14 … 20	24 mm	… /033-000
22 … 28	39 mm	… /034-000
30 … 36	53 mm	… /035-000

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of female connector.

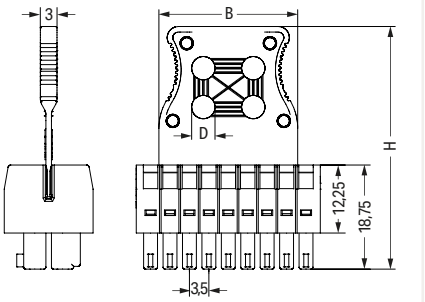
Coding pin carrier, for male headers with six coding pins

Color	Item No.	PU (SPU)
orange	714-101	100 (25)

Strain relief plate for field assembly



Coding a male header via coding pins.



Pole No.	B	H	D
6 … 8	11	38,7	3
10 … 12	18	43,7	4,2
14 … 20	25	43,7	4,2
22 … 28	39	48,7	4,2
30 … 36	53	54,2	4,9

The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.

Coding a female connector – removing coding finger(s).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Direct Marking
MCS MINI HD

713 Series Female Connectors can be marked with "1 ... pole no." via factory direct marking.

Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other custom marking options are available upon request.

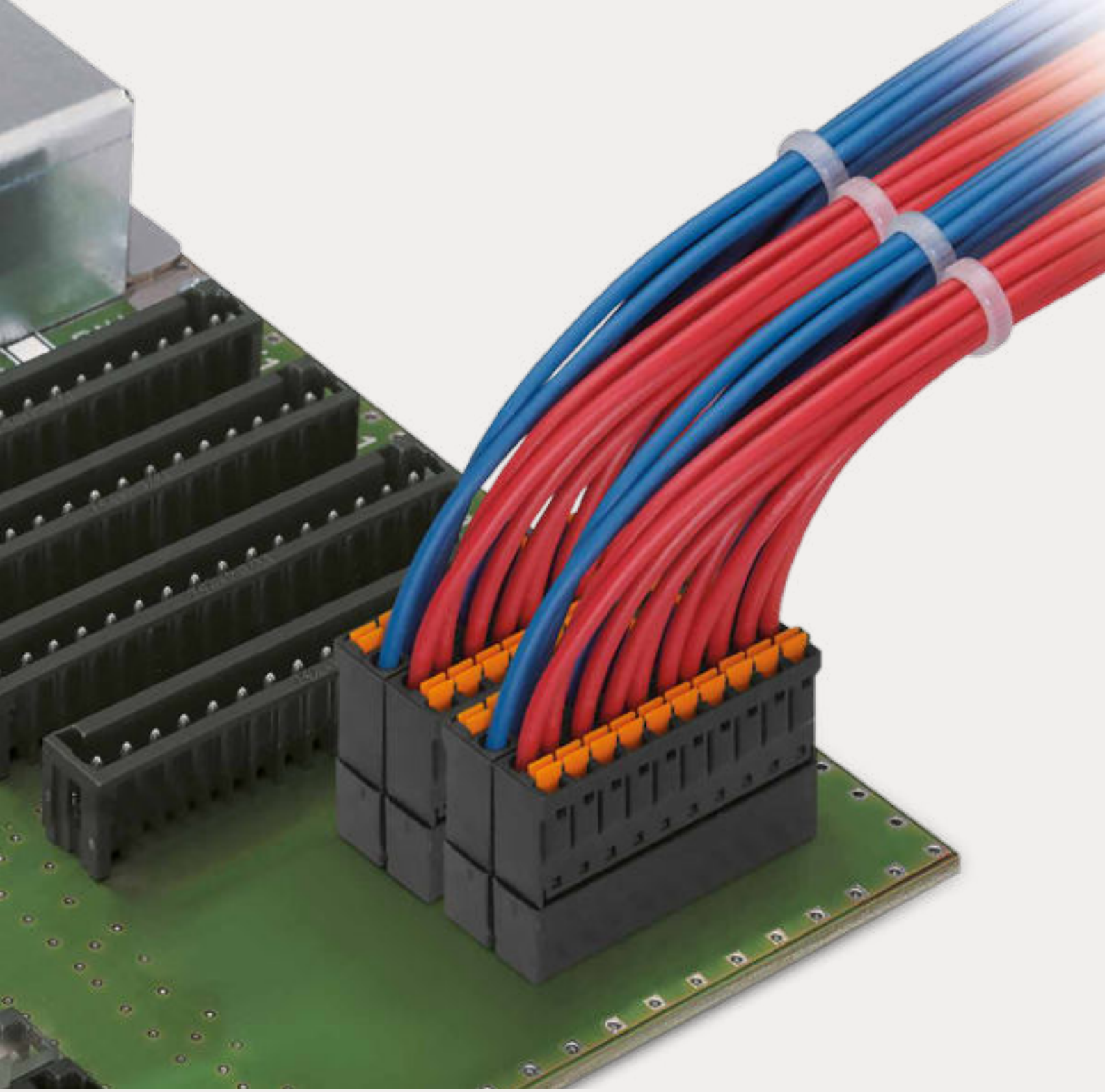
WAGO recommends pole marking on the PCB for male headers with solder pins (713 Series).

The marking type is always defined by the second 4-digit block of the item no. suffix for items with standard colors and materials.

Example: 713-1110/. . . - xxxx
xxxx = Item no. suffix for direct marking

Direct marking of 1-conductor female connectors, perpendicular to conductor entry, 1 ... pole no., item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor female connector, double-row, 16-pole, black	**713-1108/000-047**
1-conductor female connector, with screw flanges, double-row,16-pole, black	**713-1108/0107-047**
1-conductor female connector, with levers and strain relief plate, double-row, 16-pole, black	**713-1108/037-047/033-000**

Direct marking of 1-conductor female connectors, parallel to conductor entry, 1 ... pole no., item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-conductor female connector, double-row, 16-pole, black	**713-1108/000-9037**
1-conductor female connector, with levers, double-row, 16-pole, black	**13-1108/037-9037**
1-conductor female connector, with strain relief plate, double-row, 16-pole, black	**713-1108/033-9037**



WAGO *MULTI CONNECTION SYSTEM*
MINI SL

WAGO *MULTI CONNECTION SYSTEM* MINI SL
Pin Spacing: 3.5 mm / Nominal Cross-Section: 1.5 mm²

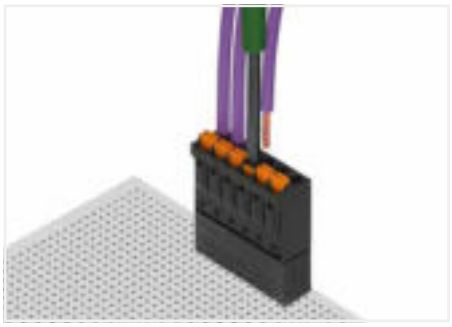
		Page
	MCS MINI SL 1-Conductor Female Connectors ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	452
	MCS MINI SL THT Male Headers	454
	MCS MINI SL Accessories	456
	Accessories and Tools	861

7

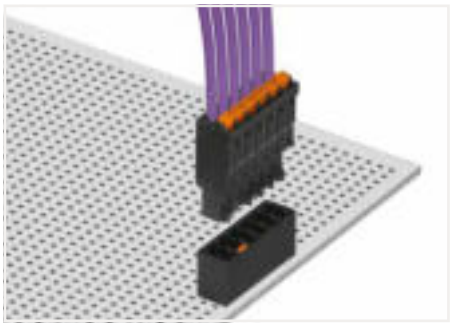
PUSH-IN CAGE CLAMP®

MCS MINI SL
Description and Installation

Terminating solid and ferruled conductors via push-in termination.



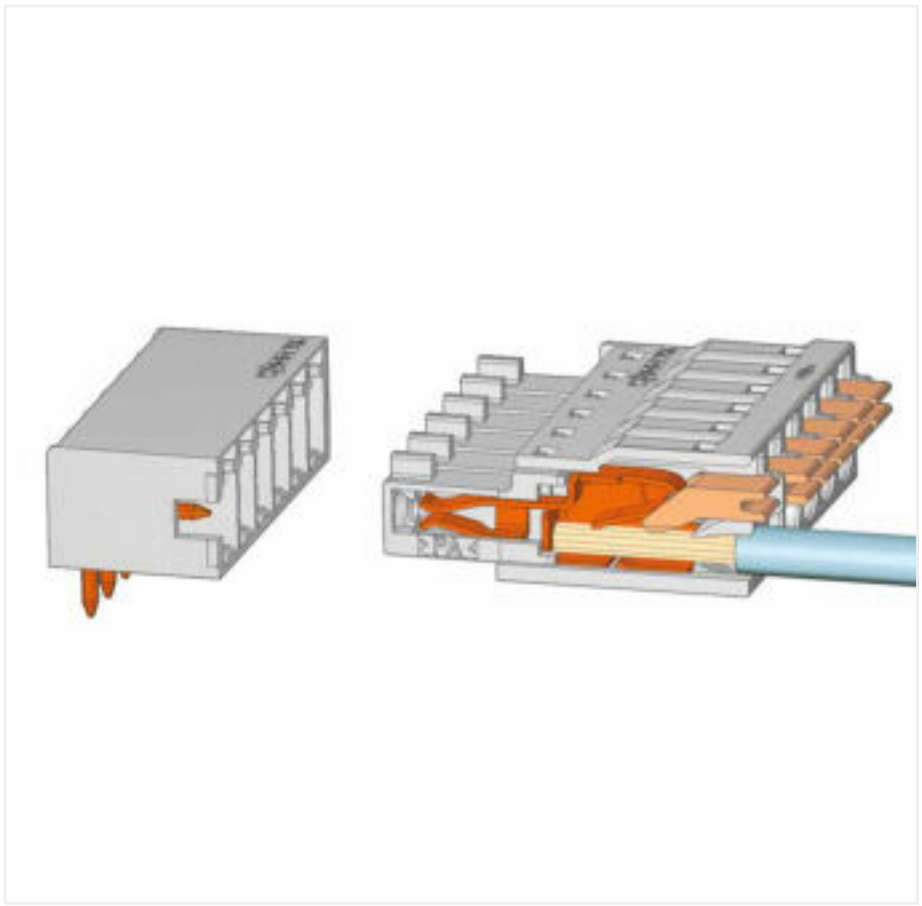
Inserting/removing fine-stranded conductors via push-button.



Coded connectors.

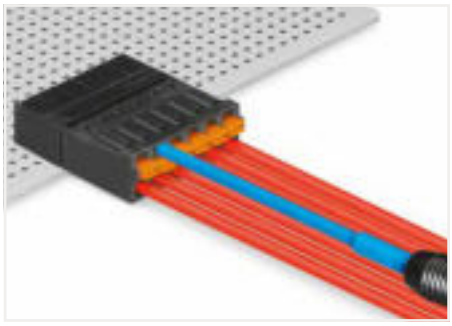
Coding a male header by inserting a coding pin.

Coding a female connector by removing coding finger(s).



Pin spacing: 3.5 mm

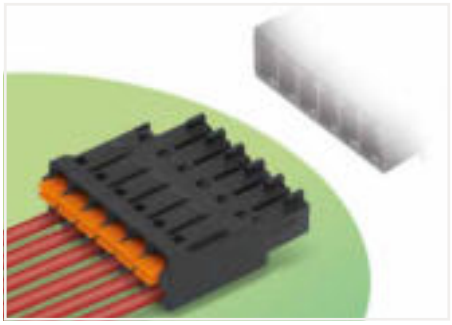
Pole marking via factory direct marking.



Testing via 1 mm Ø test pin – insertion parallel to conductor entry.

1-conductor female plug ▶ *MCS* MINI SL ▶ 714 Series

Pin spacing: 3.5 mm / 0.138 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Color: black



- Female connectors terminate both solid and ferruled conductors via push-in termination
- Integrated push-buttons provide convenient, tool-free operation
- Ultra-low profile of just 7.8 mm for conductor cross-section up to 1.5 mm²
- With coding fingers and test points

Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	8 A	8 A	8 A	

Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	8 A	-	-	

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

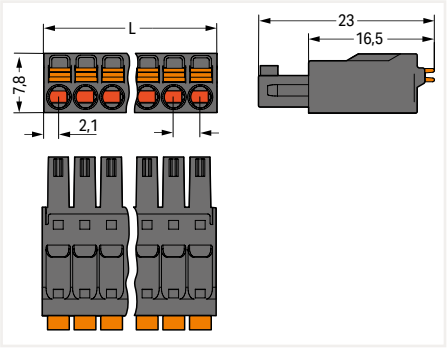
For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▶ *MCS* MINI SL ▶ 714 Series

Pin spacing: 3.5 mm / 0.138 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Color: black

714-106

Pole No.	Item No.	PU
2	714-102	200
3	714-103	200
4	714-104	200
5	714-105	100
6	714-106	100
8	714-108	100
10	714-110	100
12	714-112	100
14	714-114	50
15	714-115	50
16	714-116	50



L = (pole no. – 1) x pin spacing + 4.2 mm

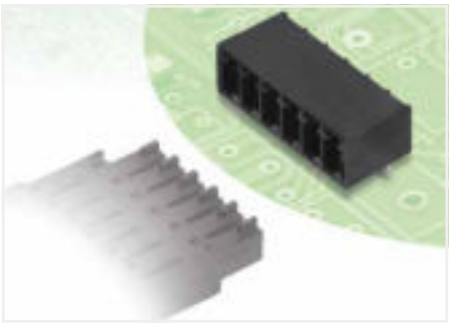
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

THT male header ▸ *MCS* MINI SL ▸ 714 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black



- Male headers may be mounted horizontally or vertically via straight or angled solder pins
- Header housing is molded of THR-compatible insulation material for lead-free Reflow soldering
- Separated pin slots prevent damage and make the headers touch-proof when unplugged
- Coding option available

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	8 A	8 A	8 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	8 A	-	-	

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	3.4 mm
Solder pin dimensions	0.8 x 0.8 mm
Drilled hole diameter with tolerance	1.2 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 456

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

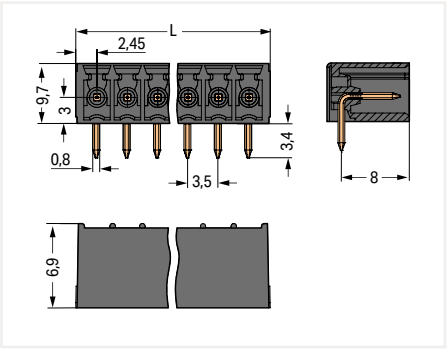
THT male header ▸ *MCS* MINI SL ▸ 714 Series

Pin spacing: 3.5 mm / 0.138 inch ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Mating direction to the PCB: 0 °

714-166

Pole No.	Item No.	PU
2	714-162	200
3	714-163	200
4	714-164	200
5	714-165	200
6	714-166	200
8	714-168	200
10	714-170	100
12	714-172	100
14	714-174	100
15	714-175	100
16	714-176	100

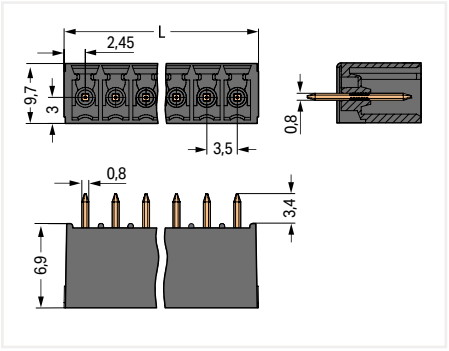


L = (pole no. – 1) x pin spacing + 4.9 mm

Mating direction to the PCB: 90 °

714-136

Pole No.	Item No.	PU
2	714-132	200
3	714-133	200
4	714-134	200
5	714-135	200
6	714-136	200
8	714-138	200
10	714-140	100
12	714-142	100
14	714-144	100
15	714-145	100
16	714-146	100



L = (pole no. – 1) x pin spacing + 4.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

Coding Pin Carrier and Direct Marking
MCS MINI SL

Coding pin carrier; for male headers; with six coding pins		
Color	**Item No.**	PU (SPU)
orange	**714-101**	100 (25)

Direct marking of 1-conductor female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor female connector; with push-buttons; 6-pole; black	**714-106/000-047**

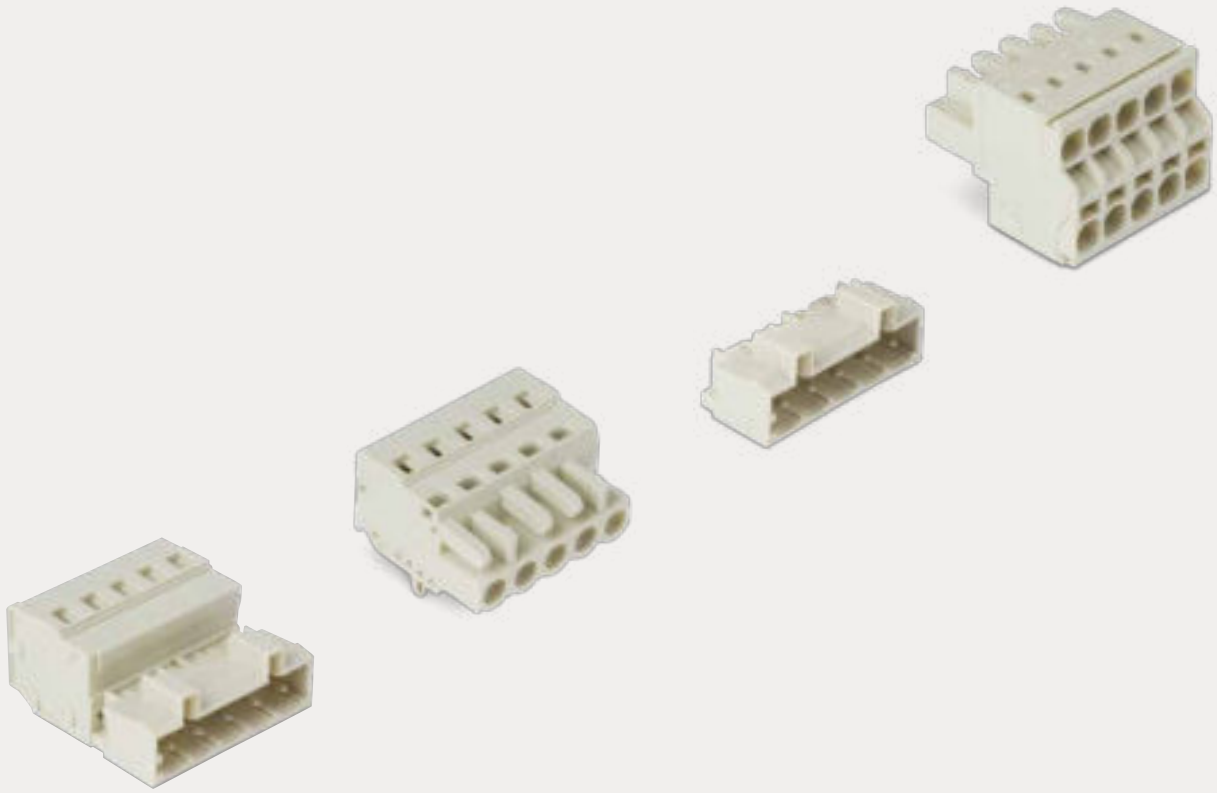
714 Series Female Connectors can be marked with "1 … pole no." via factory direct marking.

WAGO recommends pole marking on the PCB for male headers with solder pins (714 Series).

Coding a male header via coding pins.

Coding a female connector – removing coding finger(s).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



WAGO *MULTI CONNECTION SYSTEM*
MIDI

WAGO *MULTI CONNECTION SYSTEM* MIDI
Pin Spacing: 5 mm; 7.5 mm ▸ 2.5 mm²

		Pin Spacing	Page
	MCS MIDI 1-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	5 mm 7.5 mm	462 504
	MCS MIDI 2-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	5 mm 7,5 mm	470 510
	MCS MIDI 1-Conductor Female Connectors ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	5 mm 7.5 mm	472 512
	MCS MIDI 1-Conductor Male Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	5 mm 7.5 mm	476 516
	MCS MIDI THT Female Headers	5 mm 7.5 mm	484 524
	MCS MIDI THT Male Headers	5 mm 7.5 mm	490 530
	MCS MIDI Female Connectors for Rail-Mount Terminal Blocks Male Connectors for Rail-Mount Terminal Blocks	5 mm 5 mm	498 502
	MCS MIDI Accessories Accessories and Tools		538 861
	Application Examples		742

8

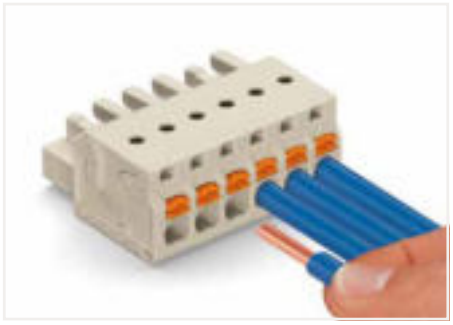
MCS MIDI, 100 % Protected Against Mismating

Description and Installation

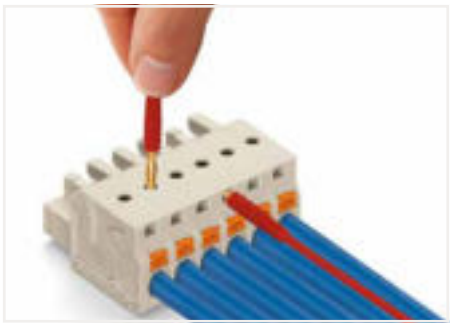
Inserting/removing a conductor via 3.5 mm screwdriver – Push-in CAGE CLAMP® actuation in mated condition.

Coding a male header – fitting coding key(s).

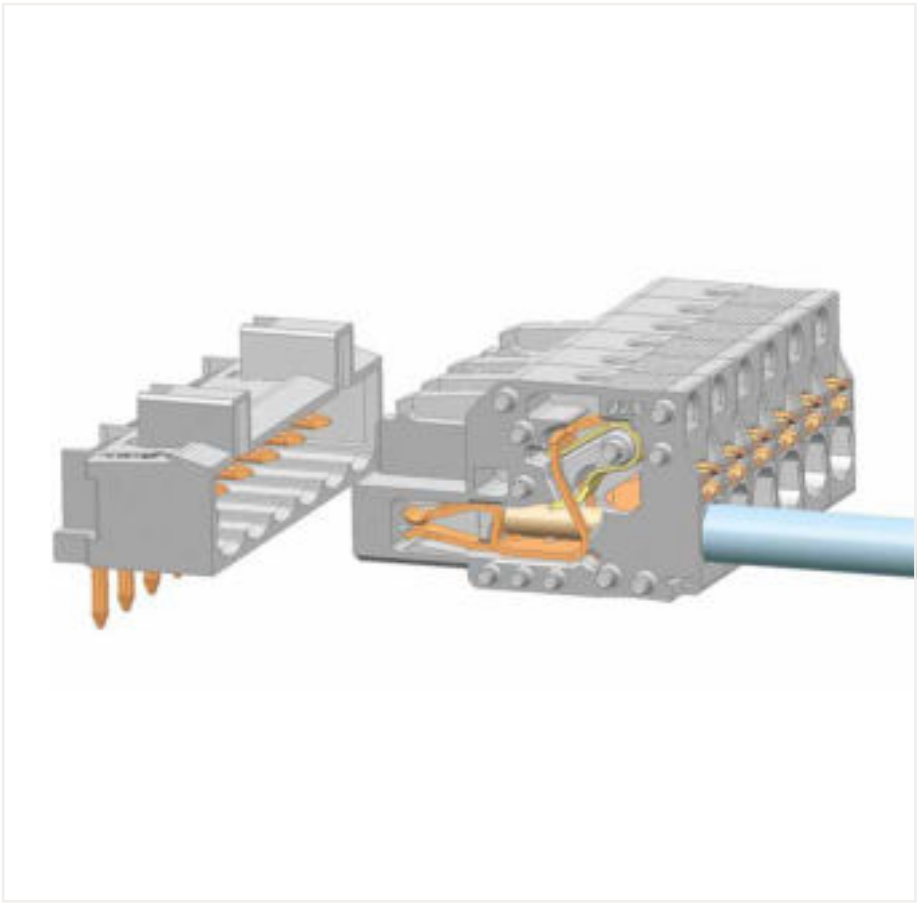
Coding a female connector – removing coding finger(s).



Push-in termination of solid conductors or fine-stranded conductors with ferrule

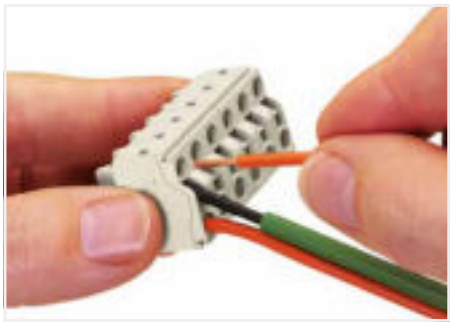


Testing parallel to conductor entry via integrated test ports – female connector with push-buttons and Push-in CAGE CLAMP® connection – touch contact perpendicular to conductor entry.

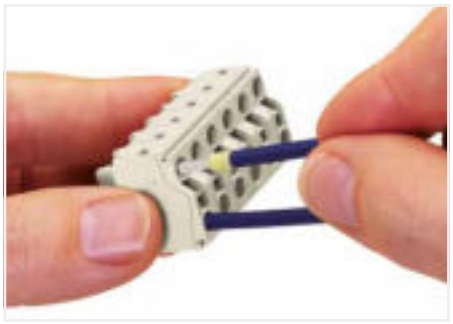


Pin spacing: 5 mm and 7.5 mm, Push-in CAGE CLAMP®

Labeling via direct marking or self-adhesive strips.



Inserting a fine-stranded conductor via 3.5 mm screwdriver into a 2-conductor female connector equipped with Push-in CAGE CLAMP®.



Push-in termination of solid conductors or fine-stranded conductors with ferrule

CAGE CLAMP®

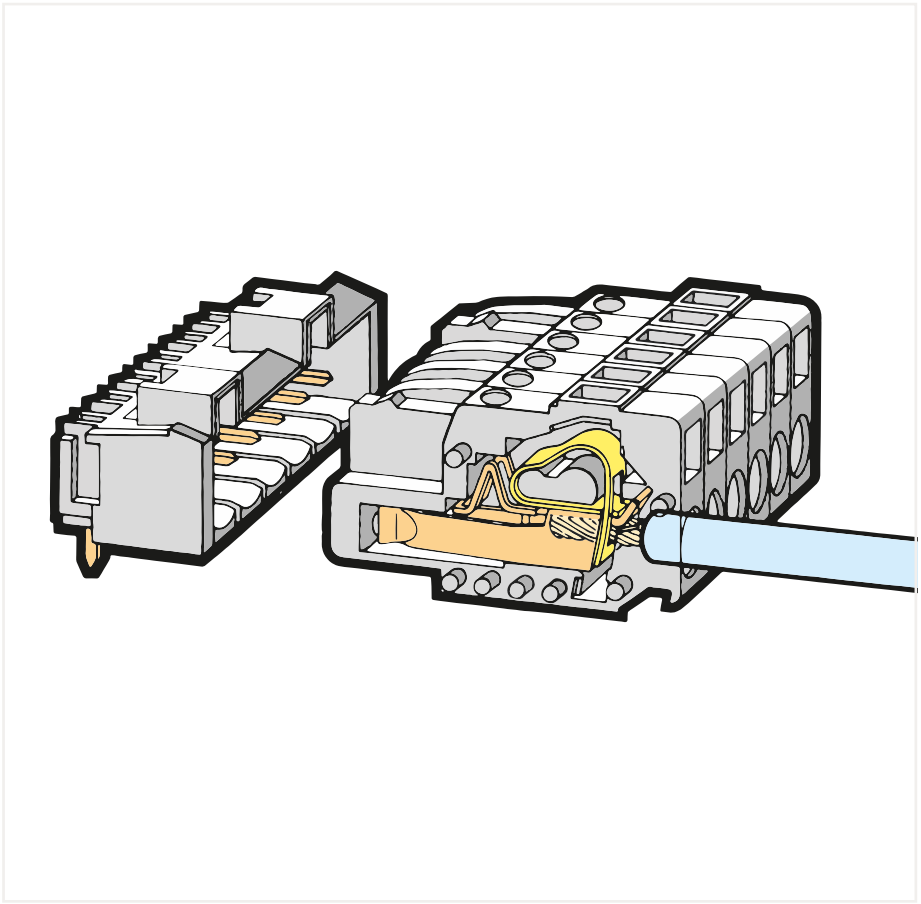
MCS MIDI, 100 % Protected Against Mismating

Description and Installation

Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.

Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.

Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).



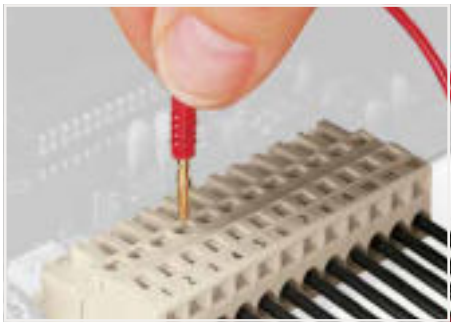
Pin spacing: 5 mm and 7.5 mm, CAGE CLAMP®

Connectors for 280 Series Rail-Mount Terminal Blocks

Angled female connector for panel mounting

Male connector with strain relief plate

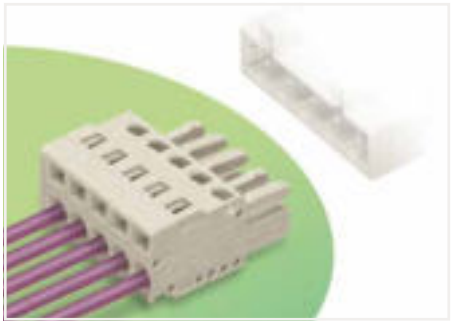
Strain relief housing shown with a male connector equipped with CAGE CLAMP®



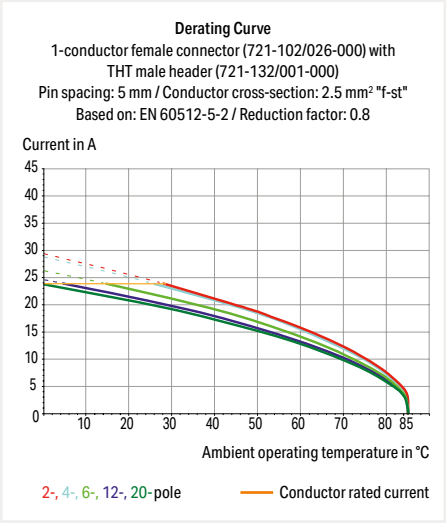
Testing perpendicular to conductor entry with 2 or 2.3 mm Ø test plug – female connector with CAGE CLAMP® – via integrated test ports

1-conductor female plug ▶ *MCS* MIDI ▶ 721 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0 ° ▶ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- 100% protected against mismating
- Coding option available



8

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 541
Insulation stop	Page 541
Jumper	Page 547
Marking	Page 865
Mounting	Page 546
Mounting adapter	Page 547
Strain relief	Page 544
Test and measurement	Page 539, 886
Tool	Page 538
Direct marking	Page 548
Cutout dimensions	Page 552

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

1-conductor female plug ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

	Locking of plug-in connection: Locking lever	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

721-105/026-000

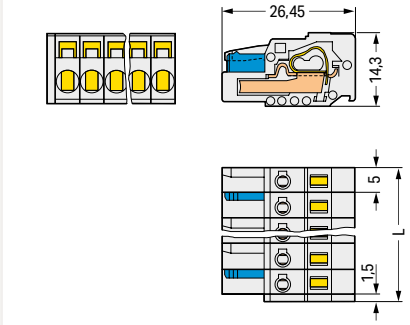
721-105/037-000

721-105/031-000

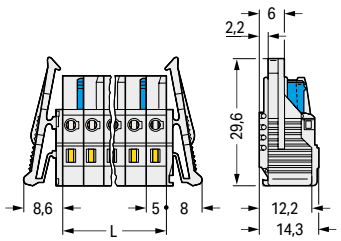
Pole No.	Item No.	PU
2	721-102/026-000	100
3	721-103/026-000	100
4	721-104/026-000	100
5	721-105/026-000	100
6	721-106/026-000	50
7	721-107/026-000	50
8	721-108/026-000	50
9	721-109/026-000	50
10	721-110/026-000	50
11	721-111/026-000	25
12	721-112/026-000	25
13	721-113/026-000	25
14	721-114/026-000	25
15	721-115/026-000	25
16	721-116/026-000	25
20	721-120/026-000	10

Pole No.	Item No.	PU
2	721-102/037-000	100
3	721-103/037-000	50
4	721-104/037-000	50
5	721-105/037-000	50
6	721-106/037-000	50
7	721-107/037-000	50
8	721-108/037-000	25
9	721-109/037-000	25
10	721-110/037-000	25
11	721-111/037-000	25
12	721-112/037-000	25
13	721-113/037-000	25
14	721-114/037-000	25
15	721-115/037-000	25
16	721-116/037-000	10
20	721-120/037-000	10

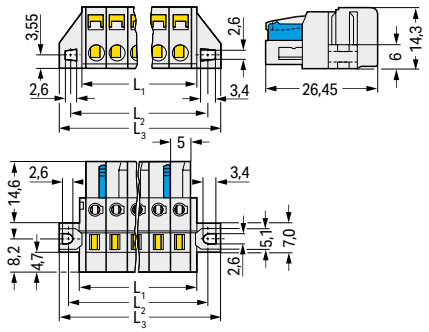
Pole No.	Item No.	PU
2	721-102/031-000	100
3	721-103/031-000	50
4	721-104/031-000	50
5	721-105/031-000	50
6	721-106/031-000	50
7	721-107/031-000	50
8	721-108/031-000	50
9	721-109/031-000	25
10	721-110/031-000	25
11	721-111/031-000	25
12	721-112/031-000	25
13	721-113/031-000	25
14	721-114/031-000	25
15	721-115/031-000	25
16	721-116/031-000	10
20	721-120/031-000	10



L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only



L = pole no. x pin spacing
2-pole female connectors – one latch only



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

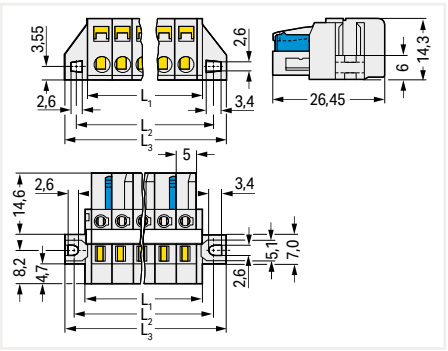
1-conductor female plug ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strips

721-108/027-000

Pole No.	Item No.	PU
6	721-106/027-000	50
7	721-107/027-000	50
8	721-108/027-000	50
9	721-109/027-000	25
10	721-110/027-000	25
11	721-111/027-000	25
12	721-112/027-000	25
13	721-113/027-000	25
14	721-114/027-000	25
15	721-115/027-000	25
16	721-116/027-000	10
20	721-120/027-000	10

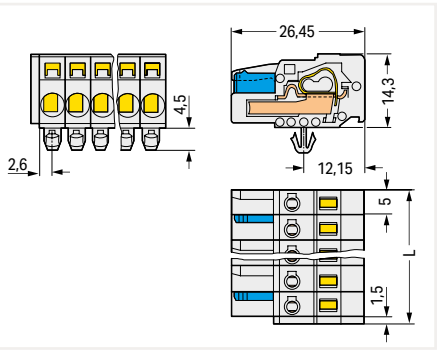


L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2-pole female connectors – one latch only

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

721-105/008-000

Pole No.	Item No.	PU
2	721-102/008-000	100
3	721-103/008-000	100
4	721-104/008-000	100
5	721-105/008-000	100
6	721-106/008-000	50
7	721-107/008-000	50
8	721-108/008-000	50
9	721-109/008-000	50
10	721-110/008-000	50
11	721-111/008-000	25
12	721-112/008-000	25
13	721-113/008-000	25
14	721-114/008-000	25
15	721-115/008-000	25
16	721-116/008-000	25
20	721-120/008-000	10



L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

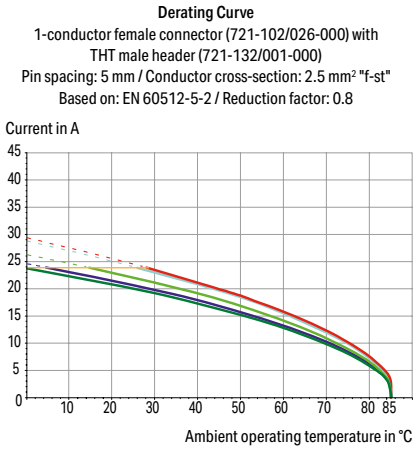
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- 100% protected against mismating
- Coding option available



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 541
Insulation stop	Page 541
Jumper	Page 547
Marking	Page 865
Strain relief	Page 544
Test and measurement	Page 539, 886
Tool	Page 538
Direct marking	Page 548

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

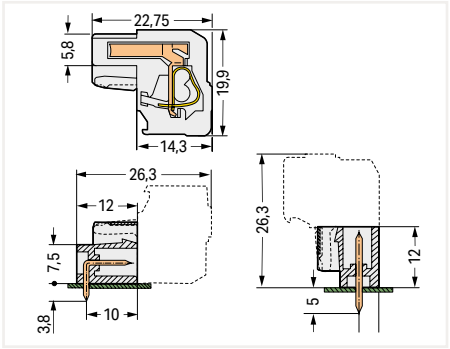
1-conductor female plug ▶ *MCS* MIDI ▶ 722 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Color: light gray

Conductor entry direction to mating direction: 90 °

722-205/026-000

Pole No.	Item No.	PU
2	722-202/026-000	100
3	722-203/026-000	100
4	722-204/026-000	100
5	722-205/026-000	100
6	722-206/026-000	50
7	722-207/026-000	25
8	722-208/026-000	25
9	722-209/026-000	25
10	722-210/026-000	25
11	722-211/026-000	25
12	722-212/026-000	25
13	722-213/026-000	25
14	722-214/026-000	25
15	722-215/026-000	25
16	722-216/026-000	10
20	722-220/026-000	10

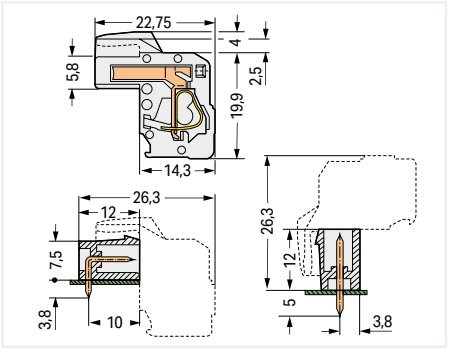


Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2-pole female connectors – one latch only

Conductor entry direction to mating direction: 270 °

722-105/026-000

Pole No.	Item No.	PU
2	722-102/026-000	100
3	722-103/026-000	100
4	722-104/026-000	100
5	722-105/026-000	100
6	722-106/026-000	50
7	722-107/026-000	50
8	722-108/026-000	50
9	722-109/026-000	50
10	722-110/026-000	50
11	722-111/026-000	25
12	722-112/026-000	25
14	722-114/026-000	25
16	722-116/026-000	25
20	722-120/026-000	10



Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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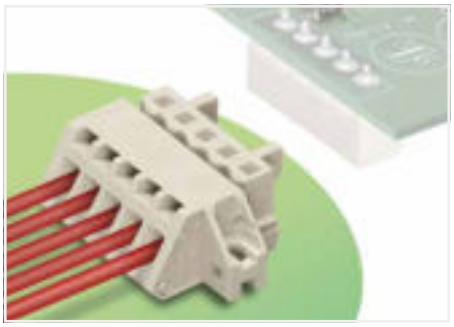
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

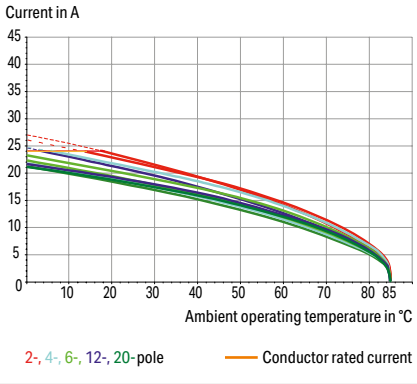
1-conductor female plug ▶ *MCS* MIDI ▶ 721 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: light gray



- Universal connection for all conductor types
- Available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-35 rail mounted
- Easy conductor termination, even when halves are mated
- 100% protected against mismating

Derating Curve
1-conductor female connector (721-302/031-000) with THT male header (721-162/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	7 … 8 mm / 0.28 … 0.31 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 541
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Strain relief	Page 544
Test and measurement	Page 539
Tool	Page 538
Direct marking	Page 548
Cutout dimensions	Page 552

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

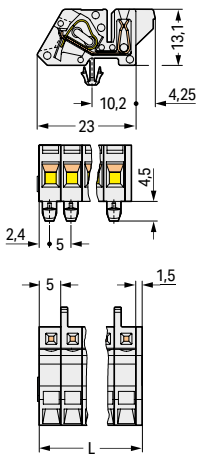
1-conductor female plug ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90 ° ▸ Color: light gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Snap-in foot

721-305/008-000

Pole No.	Item No.	PU
2	721-302/008-000	100
3	721-303/008-000	50
4	721-304/008-000	50
5	721-305/008-000	50
6	721-306/008-000	50
7	721-307/008-000	50
8	721-308/008-000	50
9	721-309/008-000	50
10	721-310/008-000	50
11	721-311/008-000	25
12	721-312/008-000	25
13	721-313/008-000	25
14	721-314/008-000	25
15	721-315/008-000	25
16	721-316/008-000	25
20	721-320/008-000	10

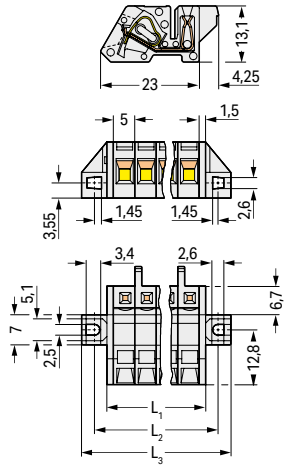


L = (pole no. x pin spacing) + 1.5 mm

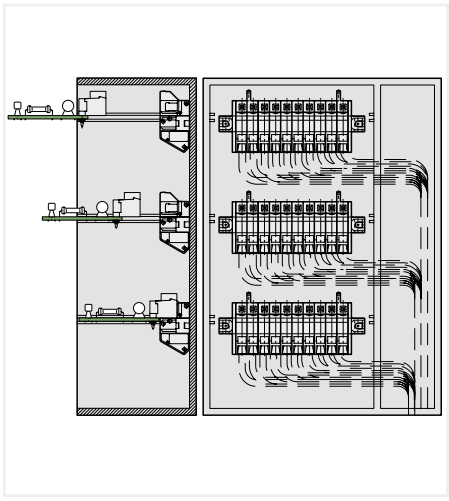
Mounting type: Panel mounting ▸ Mounting type: Mounting flange

721-305/031-000

Pole No.	Item No.	PU
2	721-302/031-000	100
3	721-303/031-000	50
4	721-304/031-000	50
5	721-305/031-000	50
6	721-306/031-000	50
7	721-307/031-000	50
8	721-308/031-000	50
9	721-309/031-000	25
10	721-310/031-000	25
11	721-311/031-000	25
12	721-312/031-000	25
13	721-313/031-000	25
14	721-314/031-000	25
15	721-315/031-000	10
16	721-316/031-000	10
20	721-320/031-000	10



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm



Multilevel arrangement in a distributed electronic housing

Angled female connector –
a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.

8

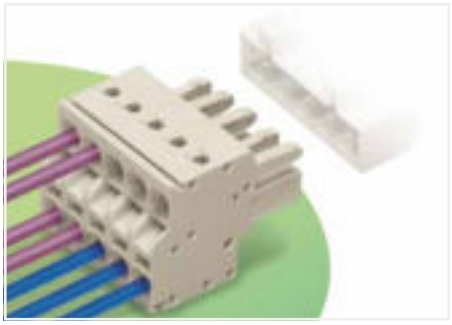
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

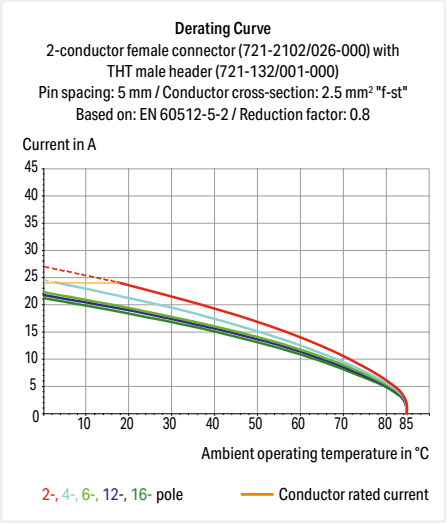
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

2-conductor female connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in terminations of solid and ferruled conductors
- 100% protected against mismating
- With coding fingers



8

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 541
Marking	Page 865
Strain relief	Page 543
Test and measurement	Page 539, 886
Tool	Page 539
Direct marking	Page 548

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

2-conductor female connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

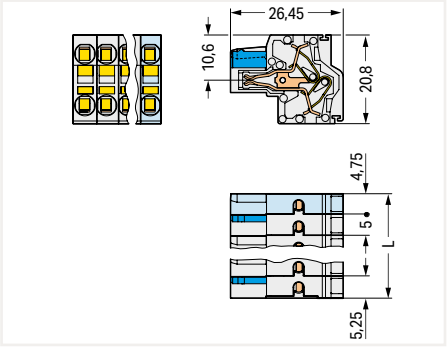
Locking of plug-in connection: Locking lever

721-2106/026-000

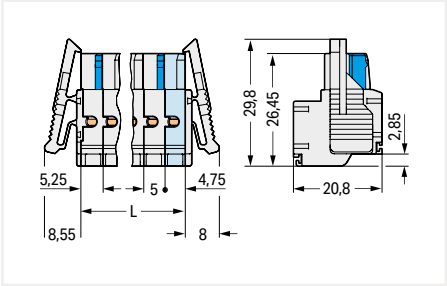
721-2106/037-000

Pole No.	Item No.	PU
2	721-2102/026-000	100
3	721-2103/026-000	100
4	721-2104/026-000	100
5	721-2105/026-000	50
6	721-2106/026-000	50
7	721-2107/026-000	50
8	721-2108/026-000	50
9	721-2109/026-000	50
10	721-2110/026-000	50
11	721-2111/026-000	25
12	721-2112/026-000	25
13	721-2113/026-000	25
14	721-2114/026-000	25
15	721-2115/026-000	25
16	721-2116/026-000	25

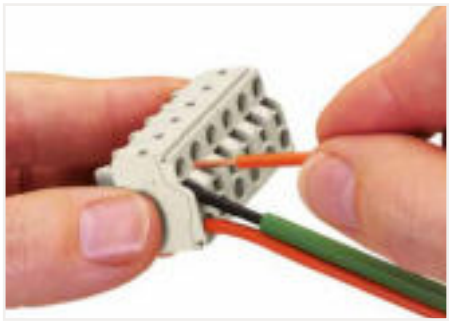
Pole No.	Item No.	PU
2	721-2102/037-000	100
3	721-2103/037-000	50
4	721-2104/037-000	50
5	721-2105/037-000	50
6	721-2106/037-000	50
7	721-2107/037-000	50
8	721-2108/037-000	25
9	721-2109/037-000	25
10	721-2110/037-000	25
11	721-2111/037-000	25
12	721-2112/037-000	25
13	721-2113/037-000	25
14	721-2114/037-000	25
15	721-2115/037-000	10
16	721-2116/037-000	10



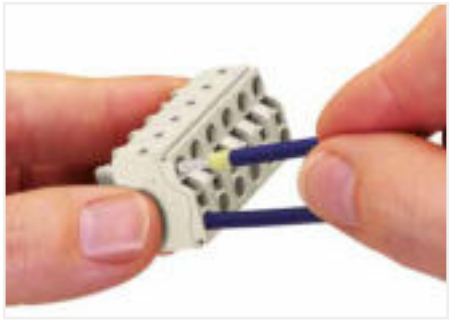
L = (pole no. – 2) x pin spacing + 10 mm
2-pole female connectors – one latch only



L = (pole no. – 2) x pin spacing + 10 mm
2-pole female connectors – one latch only



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

8

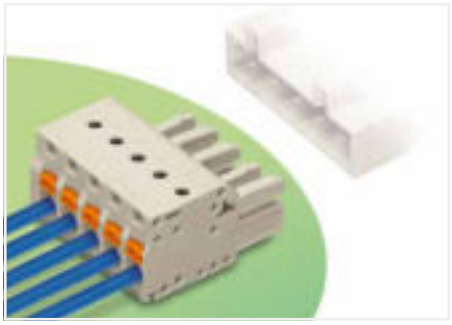
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

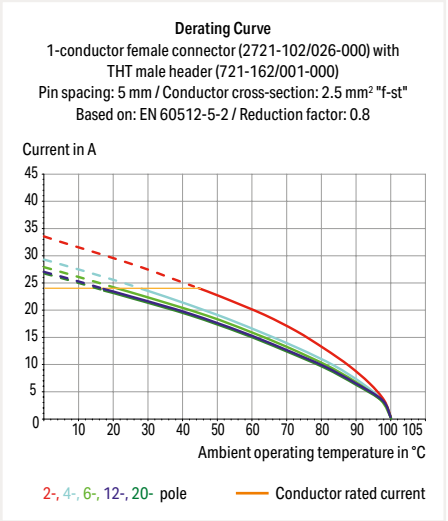
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Simple, push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 100% protected against mismating
- Coding option available



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 541
Marking	Page 865
Mounting	Page 546
Mounting adapter	Page 547
Strain relief	Page 543
Test and measurement	Page 539, 886
Tool	Page 538, 870
Direct marking	Page 548
Cutout dimensions	Page 552

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

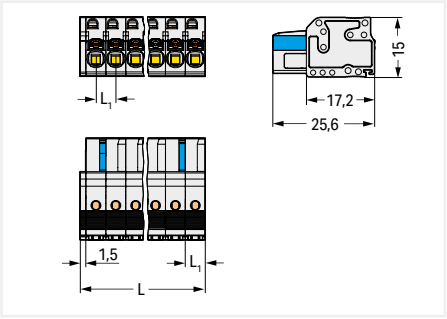
1-conductor female plug ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

	Locking of plug-in connection: Locking lever	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

2721-106/026-000

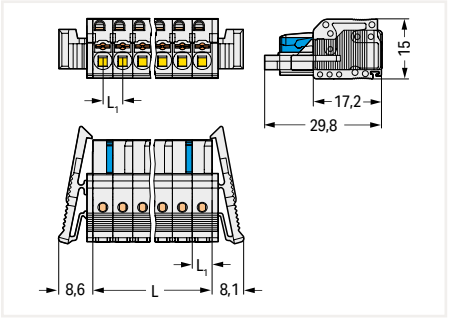
Pole No.	Item No.	PU
2	2721-102/026-000	100
3	2721-103/026-000	100
4	2721-104/026-000	100
5	2721-105/026-000	100
5	2721-115/026-000	25
6	2721-106/026-000	50
7	2721-107/026-000	50
8	2721-108/026-000	50
9	2721-109/026-000	50
10	2721-110/026-000	50
11	2721-111/026-000	25
12	2721-112/026-000	25
13	2721-113/026-000	25
14	2721-114/026-000	25
16	2721-116/026-000	25
20	2721-120/026-000	10



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2-pole female connectors – one latch only

2721-106/037-000

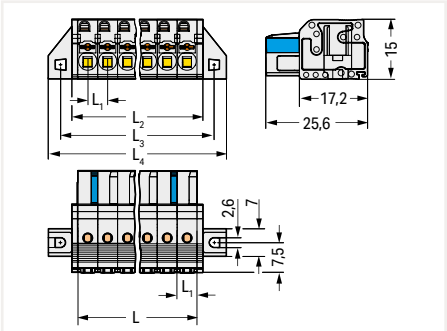
Pole No.	Item No.	PU
2	2721-102/037-000	100
3	2721-103/037-000	50
4	2721-104/037-000	50
5	2721-105/037-000	50
6	2721-106/037-000	50
7	2721-107/037-000	50
8	2721-108/037-000	25
9	2721-109/037-000	25
10	2721-110/037-000	25
11	2721-111/037-000	25
12	2721-112/037-000	25
14	2721-114/037-000	25
15	2721-115/037-000	25
16	2721-116/037-000	10
20	2721-120/037-000	10



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2-pole female connectors – one latch only

2721-106/031-000

Pole No.	Item No.	PU
2	2721-102/031-000	100
3	2721-103/031-000	50
4	2721-104/031-000	50
5	2721-105/031-000	50
6	2721-106/031-000	50
7	2721-107/031-000	50
8	2721-108/031-000	50
9	2721-109/031-000	50
10	2721-110/031-000	25
12	2721-112/031-000	25
14	2721-114/031-000	10
16	2721-116/031-000	10
20	2721-120/031-000	10



L = pole no. x pin spacing
L_1 = 5 mm
L_2 = L + 2.8 mm
L_3 = L + 8.8 mm
L_4 = L + 14.8 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

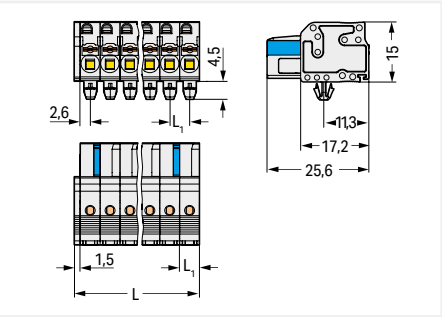
1-conductor female plug ▶ *MCS* MIDI ▶ 2721 Series

Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0 ° ▶ Color: light gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot

2721-106/008-000

Pole No.	Item No.	PU
2	2721-102/008-000	100
3	2721-103/008-000	100
4	2721-104/008-000	100
5	2721-105/008-000	100
6	2721-106/008-000	50
7	2721-107/008-000	50
8	2721-108/008-000	50
9	2721-109/008-000	50
10	2721-110/008-000	50
11	2721-111/008-000	25
12	2721-112/008-000	25
14	2721-114/008-000	25
15	2721-115/008-000	25
16	2721-116/008-000	25
20	2721-120/008-000	25



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

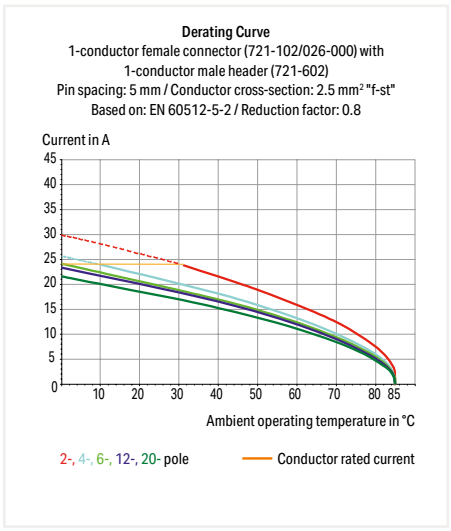
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismating
- With coding fingers



8

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 540
Ferrule	Page 879
General accessories	Page 541
Insulation stop	Page 541
Jumper	Page 547
Marking	Page 865
Mounting	Page 546, 869
Mounting adapter	Page 547
Strain relief	Page 544
Tool	Page 538, 870
Direct marking	Page 548
Cutout dimensions	Page 552

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

1-conductor male connector ▸ *MCS* MIDI ▸ 721 Series

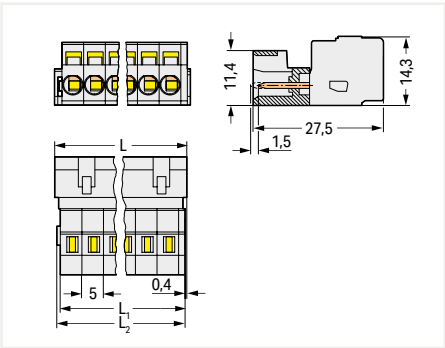
Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange	Mounting type: Feed-through mounting ▸ Mounting type: Snap-in
	721-606/019-000	721-606/114-000

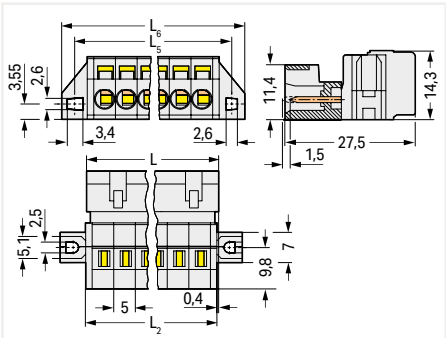
Pole No.	Item No.	PU
2	721-602	100
3	721-603	100
4	721-604	100
5	721-605	50
6	721-606	50
7	721-607	50
8	721-608	50
9	721-609	50
10	721-610	50
11	721-611	25
12	721-612	25
13	721-613	25
14	721-614	25
15	721-615	25
16	721-616	25
20	721-620	10

Pole No.	Item No.	PU
2	721-602/019-000	100
3	721-603/019-000	50
4	721-604/019-000	50
5	721-605/019-000	50
6	721-606/019-000	50
7	721-607/019-000	50
8	721-608/019-000	50
9	721-609/019-000	25
10	721-610/019-000	25
11	721-611/019-000	25
12	721-612/019-000	25
13	721-613/019-000	25
14	721-614/019-000	25
15	721-615/019-000	25
16	721-616/019-000	10
20	721-620/019-000	10

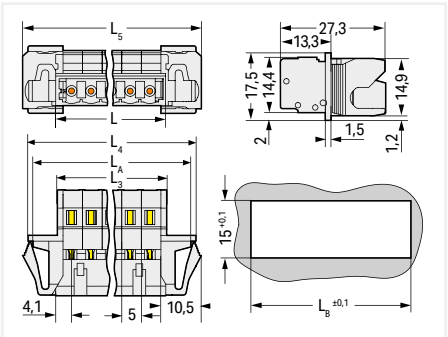
Pole No.	Item No.	PU
2	721-602/114-000	50
3	721-603/114-000	50
4	721-604/114-000	50
5	721-605/114-000	50
6	721-606/114-000	50
7	721-607/114-000	25
8	721-608/114-000	25
9	721-609/114-000	25
10	721-610/114-000	25
11	721-611/114-000	25
12	721-612/114-000	25
13	721-613/114-000	25
14	721-614/114-000	25
15	721-615/114-000	10
16	721-616/114-000	10
20	721-620/114-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 1.7 mm
L_3 = L – 1.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 0.2 mm
L_5 = L_2 + 5.8 mm
L_6 = L_2 + 11.8 mm



L = (pole no. x pin spacing) + 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

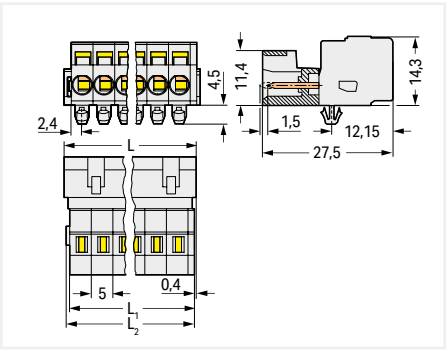
1-conductor male connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

721-605/018-000

Pole No.	Item No.	PU
2	721-602/018-000	100
3	721-603/018-000	100
4	721-604/018-000	100
5	721-605/018-000	50
6	721-606/018-000	50
7	721-607/018-000	50
8	721-608/018-000	50
9	721-609/018-000	50
10	721-610/018-000	50
11	721-611/018-000	25
12	721-612/018-000	25
13	721-613/018-000	25
14	721-614/018-000	25
15	721-615/018-000	25
16	721-616/018-000	25
20	721-620/018-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 1.7 mm
L_3 = L – 1.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

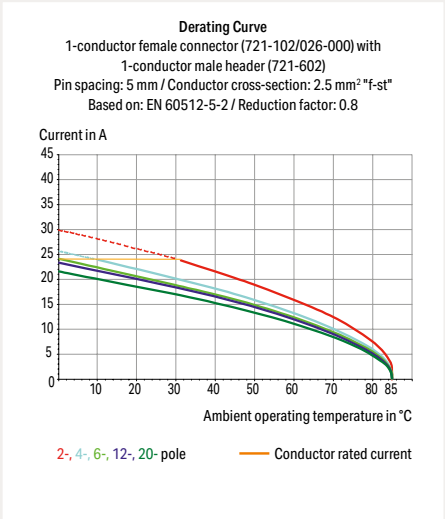
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding ground contact ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismating
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 540
Ferrule	Page 879
General accessories	Page 541
Insulation stop	Page 541
Jumper	Page 547
Mounting	Page 546, 869
Mounting adapter	Page 547
Strain relief	Page 544
Tool	Page 538, 870
Direct marking	Page 548
Cutout dimensions	Page 552
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

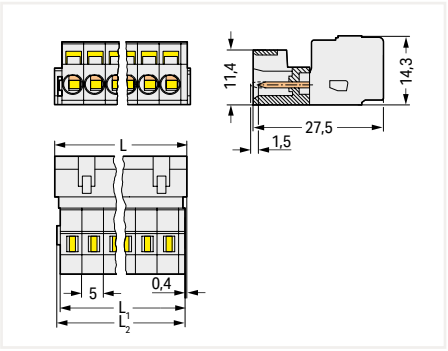
1-conductor male connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding ground contact ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

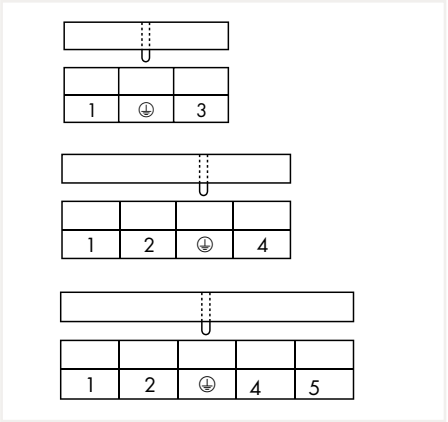
	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange	Mounting type: Feed-through mounting ▸ Mounting type: Snap-in

721-605/000-042

Pole No.	Item No.	PU
3	721-603/000-042	100
4	721-604/000-042	100
5	721-605/000-042	50



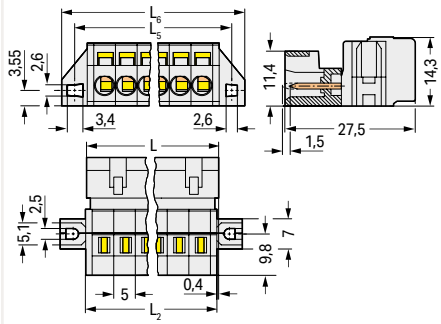
L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 1.7 mm
L_3 = L – 1.2 mm



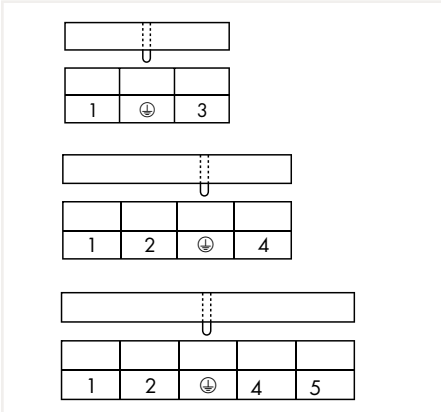
Preceding ground contact position

721-605/019-042

Pole No.	Item No.	PU
3	721-603/019-042	50
4	721-604/019-042	50
5	721-605/019-042	50



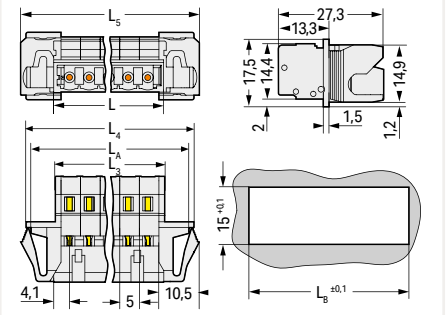
L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 0.2 mm
L_5 = L_2 + 5.8 mm
L_6 = L_2 + 11.8 mm



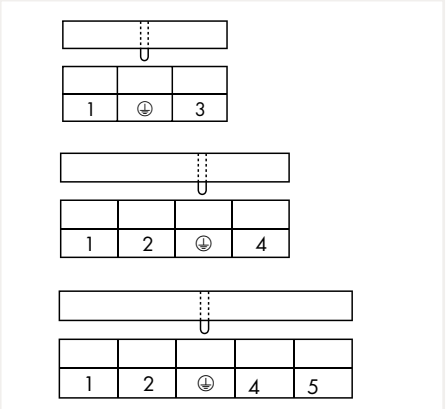
Preceding ground contact position

721-606/114-000

Pole No.	Item No.	PU
3	721-603/114-042	50
4	721-604/114-042	50
5	721-605/114-042	50



L = (pole no. x pin spacing) + 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm



Preceding ground contact position

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

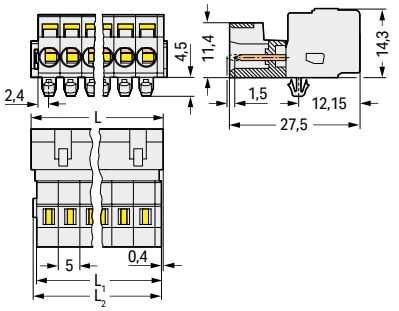
1-conductor male connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding ground contact ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

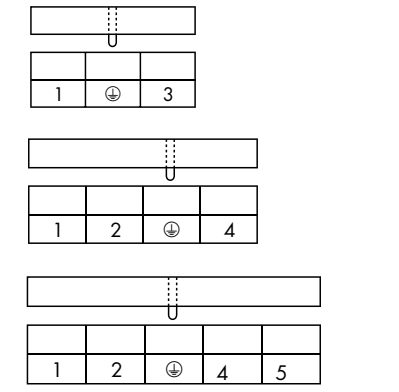
Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

721-605/018-042

Pole No.	Item No.	PU
3	721-603/018-042	100
4	721-604/018-042	100
4	721-604/018-042/033-000	50
5	721-605/018-042	50



L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 1.7 mm
L_3 = L – 1.2 mm



Preceding ground contact position

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

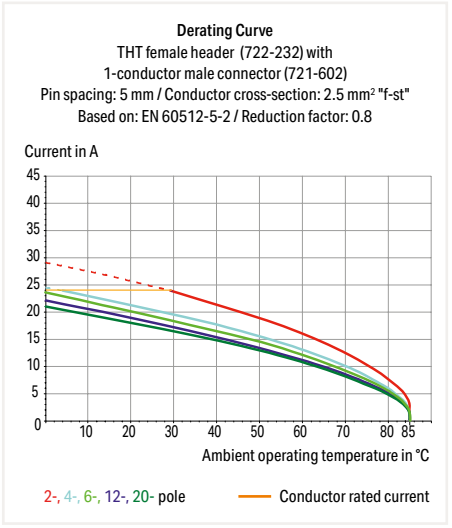
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- 100 % protected against mismating
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 869
Test and measurement	Page 539, 886
Cutout dimensions	Page 552
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

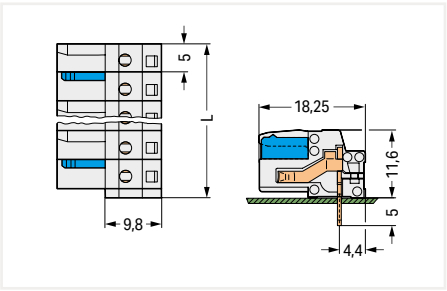
THT female header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0 °

722-235

Pole No.	Item No.	PU
2	722-232	100
3	722-233	100
4	722-234	100
5	722-235	100
6	722-236	50
7	722-237	50
8	722-238	50
9	722-239	50
10	722-240	50
11	722-241	25
12	722-242	25
13	722-243	25
14	722-244	25
15	722-245	25
16	722-246	25
20	722-250	10

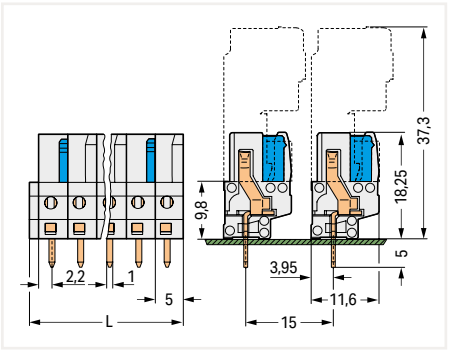


L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90 °

722-132

Pole No.	Item No.	PU
2	722-132	100
3	722-133	100
4	722-134	100
5	722-135	100
6	722-136	50
7	722-137	50
8	722-138	50
9	722-139	50
10	722-140	50
11	722-141	25
12	722-142	25
13	722-143	25
14	722-144	25
15	722-145	25
16	722-146	25
20	722-150	10

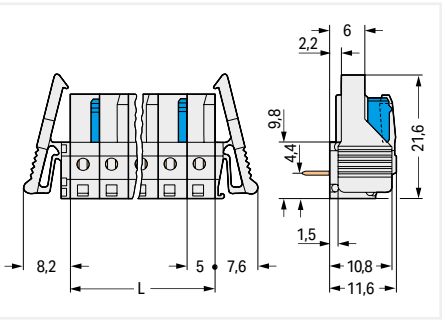


L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

722-235/039-000

Pole No.	Item No.	PU
2	722-232/039-000	100
3	722-233/039-000	50
4	722-234/039-000	50
5	722-235/039-000	50
6	722-236/039-000	50
7	722-237/039-000	50
8	722-238/039-000	50
9	722-239/039-000	25
10	722-240/039-000	25
11	722-241/039-000	25
12	722-242/039-000	25
13	722-243/039-000	25
14	722-244/039-000	25
15	722-245/039-000	25
16	722-246/039-000	10
20	722-250/039-000	10



L = pole no. x pin spacing
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

722-135/039-000

Pole No.	Item No.	PU
2	722-132/039-000	100
3	722-133/039-000	50
4	722-134/039-000	50
5	722-135/039-000	50
6	722-136/039-000	50
7	722-137/039-000	50
8	722-138/039-000	50
9	722-139/039-000	25
10	722-140/039-000	25
11	722-141/039-000	25
12	722-142/039-000	25
13	722-143/039-000	25
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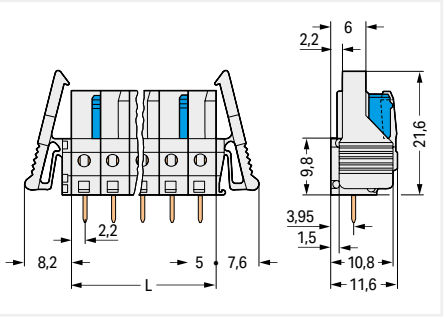
15	722-145/039-000	25
16	722-146/039-000	10
20	722-150/039-000	10



L = pole no. x pin spacing
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI ▸ 722 Series

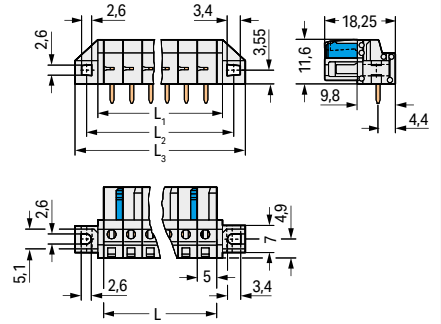
Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

722-235/031-000

Pole No.	Item No.	PU
2	722-232/031-000	100
3	722-233/031-000	50
4	722-234/031-000	50
5	722-235/031-000	50
6	722-236/031-000	50
7	722-237/031-000	50
8	722-238/031-000	50
9	722-239/031-000	25
10	722-240/031-000	25
11	722-241/031-000	25
12	722-242/031-000	25
13	722-243/031-000	25
14	722-244/031-000	25
15	722-245/031-000	25
16	722-246/031-000	10
20	722-250/031-000	10

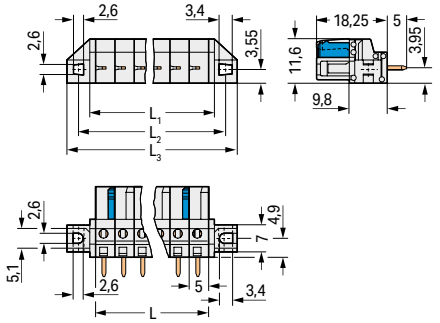


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90 °

722-135/031-000

Pole No.	Item No.	PU
2	722-132/031-000	100
3	722-133/031-000	50
4	722-134/031-000	50
5	722-135/031-000	50
6	722-136/031-000	50
7	722-137/031-000	50
8	722-138/031-000	50
9	722-139/031-000	25
10	722-140/031-000	25
11	722-141/031-000	25
12	722-142/031-000	25
13	722-143/031-000	25
14	722-144/031-000	25
15	722-145/031-000	25
16	722-146/031-000	10
20	722-150/031-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

8

THT female header ▸ *MCS* MIDI ▸ 722 Series

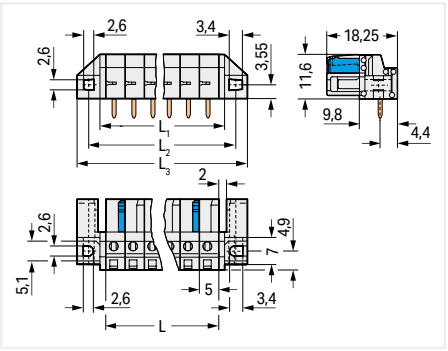
Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Mounting type: Flush feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

722-235/047-000

Pole No.	Item No.	PU
2	722-232/047-000	100
3	722-233/047-000	50
4	722-234/047-000	50
5	722-235/047-000	50
6	722-236/047-000	50
7	722-237/047-000	50
8	722-238/047-000	50
9	722-239/047-000	25
10	722-240/047-000	25
11	722-241/047-000	25
12	722-242/047-000	25
13	722-243/047-000	25
14	722-244/047-000	25
15	722-245/047-000	25
16	722-246/047-000	10
20	722-250/047-000	10

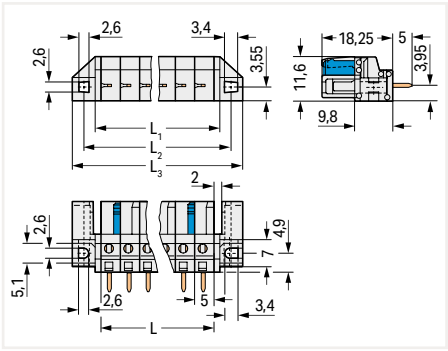


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90 °

722-135/047-000

Pole No.	Item No.	PU
2	722-132/047-000	100
3	722-133/047-000	50
4	722-134/047-000	50
5	722-135/047-000	50
6	722-136/047-000	50
7	722-137/047-000	50
8	722-138/047-000	50
9	722-139/047-000	25
10	722-140/047-000	25
11	722-141/047-000	25
12	722-142/047-000	25
13	722-143/047-000	25
14	722-144/047-000	25
15	722-145/047-000	25
16	722-146/047-000	10
20	722-150/047-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

8

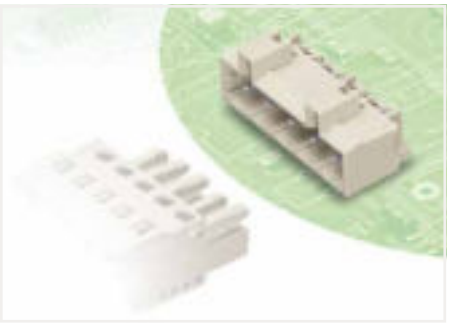
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

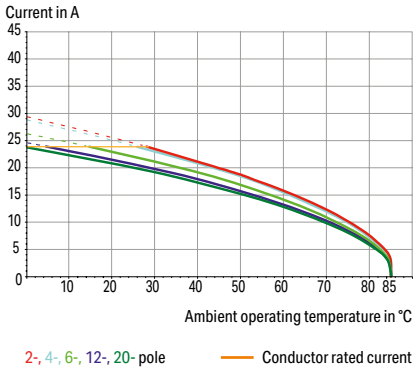
THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-102/026-000) with
THT male header (721-432/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 540

See technical section for further information

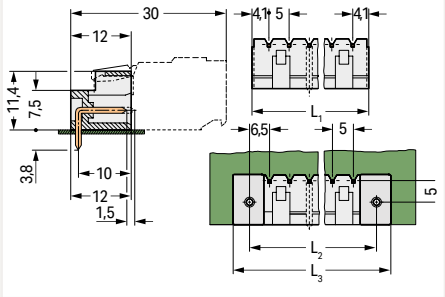
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

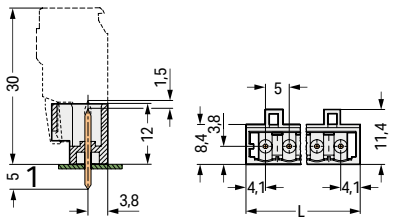
Pole No.	Item No.	PU
2	721-432/001-000	200
3	721-433/001-000	200
4	721-434/001-000	200
5	721-435/001-000	200
6	721-436/001-000	100
7	721-437/001-000	100
8	721-438/001-000	100
9	721-439/001-000	100
10	721-440/001-000	100
11	721-441/001-000	100
12	721-442/001-000	100
13	721-443/001-000	50
14	721-444/001-000	50
15	721-445/001-000	50
16	721-446/001-000	50
20	721-450/001-000	50



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

Pole No.	Item No.	PU
2	721-132/001-000	200
3	721-133/001-000	200
4	721-134/001-000	200
5	721-135/001-000	200
6	721-136/001-000	100
7	721-137/001-000	100
8	721-138/001-000	100
9	721-139/001-000	100
10	721-140/001-000	100
11	721-141/001-000	100
12	721-142/001-000	100
13	721-143/001-000	50
14	721-144/001-000	50
15	721-145/001-000	50
16	721-146/001-000	50
20	721-150/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

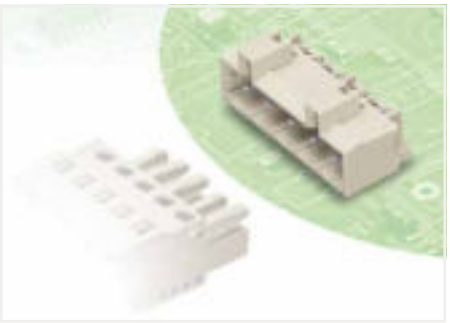
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

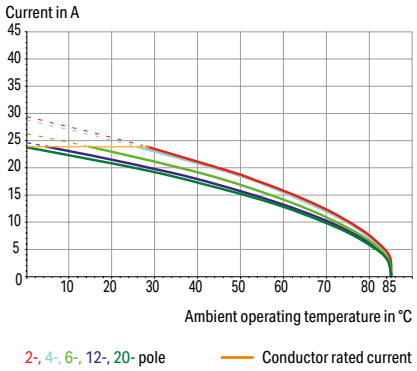
THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of horter headers
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-102/026-000) with
THT male header (721-432/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 540

See technical section for further information

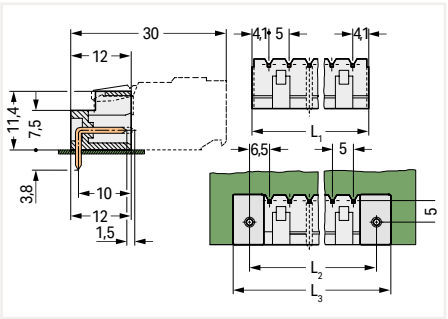
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

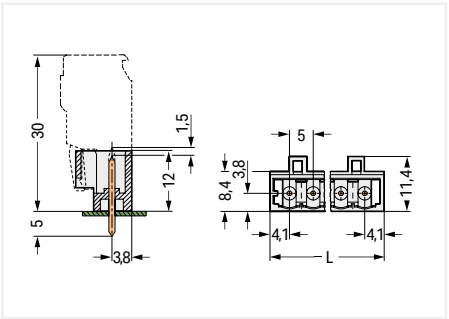
Pole No.	Item No.	PU
2	721-462/001-000	200
3	721-463/001-000	200
4	721-464/001-000	200
5	721-465/001-000	100
6	721-466/001-000	100
7	721-467/001-000	100
8	721-468/001-000	100
9	721-469/001-000	100
10	721-470/001-000	100
11	721-471/001-000	100
12	721-472/001-000	100
13	721-473/001-000	50
14	721-474/001-000	50
15	721-475/001-000	50
16	721-476/001-000	50
20	721-480/001-000	50



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

Pole No.	Item No.	PU
2	721-162/001-000	200
3	721-163/001-000	200
4	721-164/001-000	200
5	721-165/001-000	200
6	721-166/001-000	100
7	721-167/001-000	100
8	721-168/001-000	100
9	721-169/001-000	100
10	721-170/001-000	100
11	721-171/001-000	100
12	721-172/001-000	100
13	721-173/001-000	50
14	721-174/001-000	50
15	721-175/001-000	50
16	721-176/001-000	50
20	721-180/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

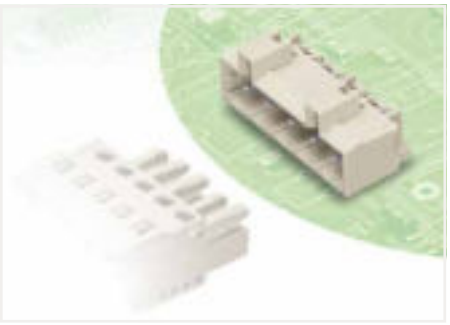
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

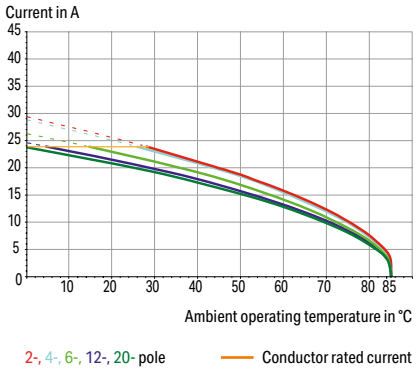
THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ with preceding ground contact ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-102/026-000) with THT male header (721-432/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 540

See technical section for further information

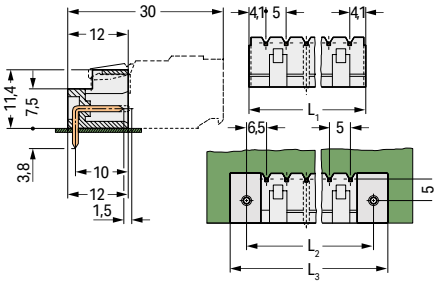
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MIDI ▸ 721 Series

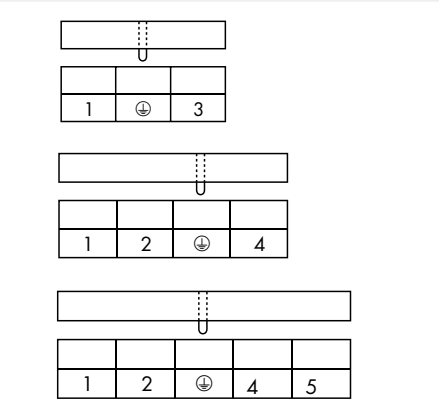
Pin spacing: 5 mm / 0.197 inch ▸ with preceding ground contact ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

Pole No.	Item No.	PU
3	721-433/001-040	200
4	721-434/001-040	200
5	721-435/001-040	200



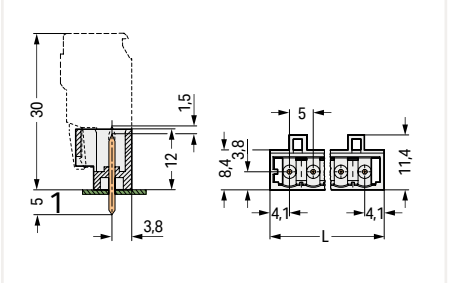
L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm



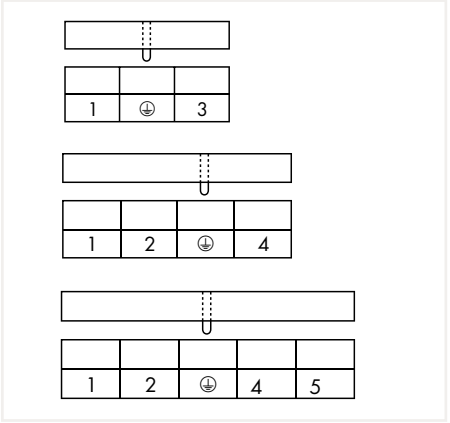
Preceding ground contact position

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

Pole No.	Item No.	PU
3	721-133/001-040	200
4	721-134/001-040	200
5	721-135/001-040	200



L = (pole no. – 1) x pin spacing + 8.2 mm



Preceding ground contact position

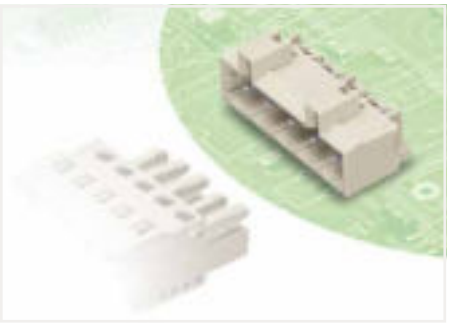
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

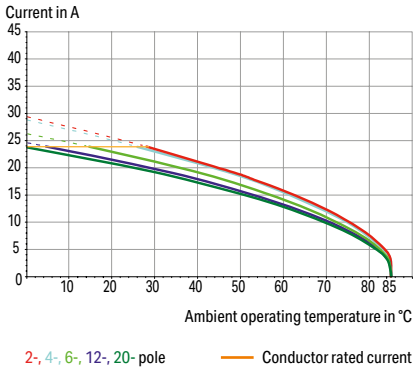
THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ with preceding ground contact ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of horter headers
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-102/026-000) with THT male header (721-432/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 540

See technical section for further information

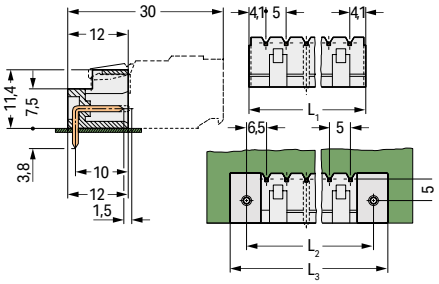
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MIDI ▸ 721 Series

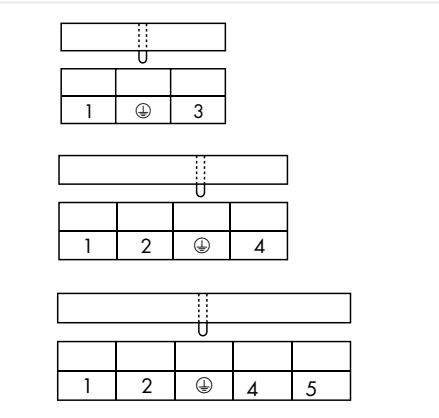
Pin spacing: 5 mm / 0.197 inch ▸ with preceding ground contact ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

Pole No.	Item No.	PU
3	721-463/001-040	200
4	721-464/001-040	200
5	721-465/001-040	200



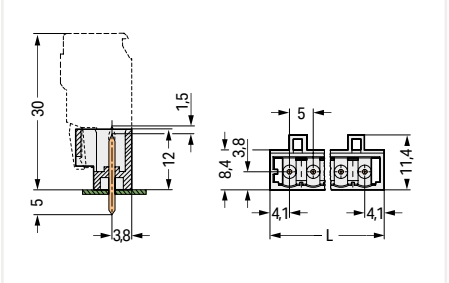
L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm



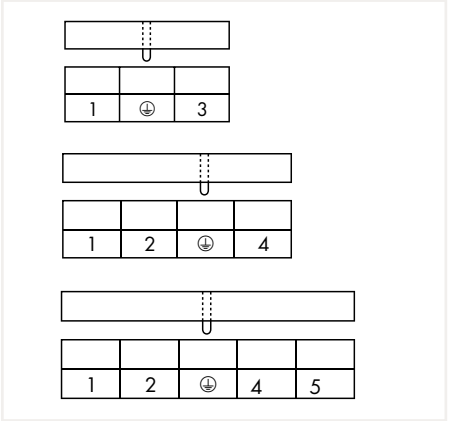
Preceding ground contact position

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

Pole No.	Item No.	PU
3	721-163/001-040	200
4	721-164/001-040	200
5	721-165/001-040	200



L = (pole no. – 1) x pin spacing + 8.2 mm



Preceding ground contact position

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

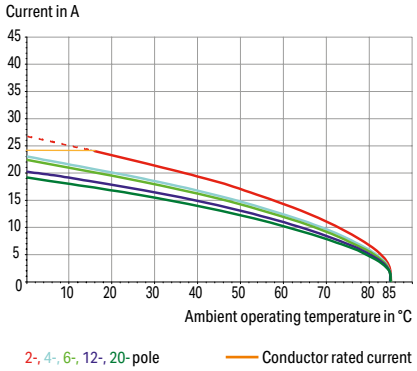
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

Female connector for rail-mount terminal blocks ▸ *MCS* MIDI ▸ 722 Series
Pin spacing: 5 mm / 0.197 inch ▸ Color: light gray

- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Female connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Female connectors are touch-proof when unmated, providing a pluggable, live output
- 100 % protected against mismating
- With coding fingers

Derating Curve
Female connector (722-232/005-000) with
1-conductor male connector (721-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Test and measurement Page 539, 886
Tool Page 539

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

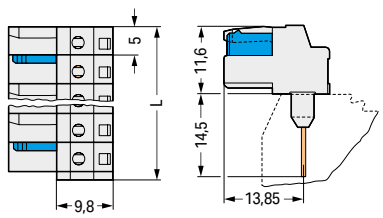
Female connector for rail-mount terminal blocks ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm / 0.197 inch ▸ Color: light gray

Mating direction to the rail-mount terminal block: 0 °

722-136/005-000

Pole No.	Item No.	PU
2	722-232/005-000	100
3	722-233/005-000	100
4	722-234/005-000	100
5	722-235/005-000	100
6	722-236/005-000	50
7	722-237/005-000	50
8	722-238/005-000	50
9	722-239/005-000	50
10	722-240/005-000	50
11	722-241/005-000	25
12	722-242/005-000	25
13	722-243/005-000	25
14	722-244/005-000	25
15	722-245/005-000	25
16	722-246/005-000	25
20	722-250/005-000	10

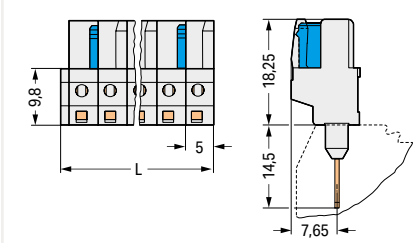


L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

Mating direction to the rail-mount terminal block: 90 °

722-136/005-000

Pole No.	Item No.	PU
2	722-132/005-000	100
3	722-133/005-000	100
4	722-134/005-000	100
5	722-135/005-000	100
6	722-136/005-000	50
7	722-137/005-000	50
8	722-138/005-000	50
9	722-139/005-000	50
10	722-140/005-000	50
11	722-141/005-000	25
12	722-142/005-000	25
13	722-143/005-000	25
14	722-144/005-000	25
15	722-145/005-000	25
16	722-146/005-000	25
20	722-150/005-000	10

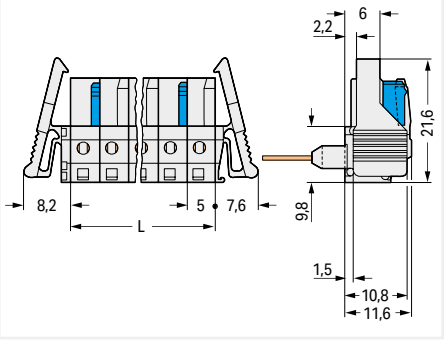


L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

Locking of plug-in connection: Locking lever ▸ Mating direction to the rail-mount terminal block: 0 °

722-236/005-000/039-000

Pole No.	Item No.	PU
2	722-232/005-000/039-000	100
3	722-233/005-000/039-000	50
4	722-234/005-000/039-000	50
5	722-235/005-000/039-000	50
6	722-236/005-000/039-000	50
7	722-237/005-000/039-000	50
8	722-238/005-000/039-000	50
9	722-239/005-000/039-000	25
10	722-240/005-000/039-000	25
11	722-241/005-000/039-000	25
12	722-242/005-000/039-000	25
14	722-244/005-000/039-000	25
16	722-246/005-000/039-000	10
20	722-250/005-000/039-000	10



L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

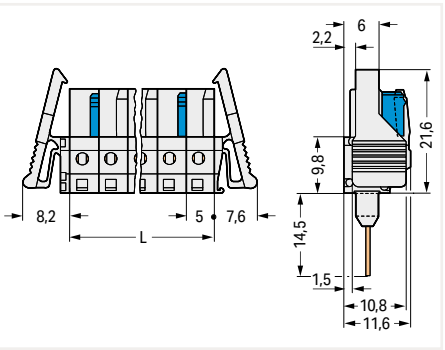
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

Female connector for rail-mount terminal blocks ▸ *MCS* MIDI ▸ 722 Series
Pin spacing: 5 mm / 0.197 inch ▸ Color: light gray

Locking of plug-in connection: Locking lever ▸ Mating direction to the rail-mount terminal block: 90 °

Pole No.	Item No.	PU
2	722-132/005-000/039-000	100
3	722-133/005-000/039-000	50
4	722-134/005-000/039-000	50
5	722-135/005-000/039-000	50
6	722-136/005-000/039-000	50
7	722-137/005-000/039-000	50
8	722-138/005-000/039-000	50
9	722-139/005-000/039-000	25
10	722-140/005-000/039-000	25
11	722-141/005-000/039-000	25
12	722-142/005-000/039-000	25
14	722-144/005-000/039-000	25
16	722-146/005-000/039-000	10
20	722-150/005-000/039-000	10



L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

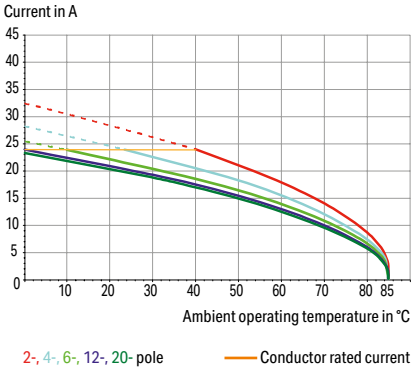
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers

Male connector for rail-mount terminal blocks ▸ *MCS* MIDI ▸ 721 Series
Pin spacing: 5 mm / 0.197 inch ▸ Color: light gray

- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Male connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Pins can be touched when the connector is unplugged, so power should be supplied via terminal block (observe rated voltage!)
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-102/026-000) with male connector (721-162/003-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 540
Tool	Page 539

See technical section for further information

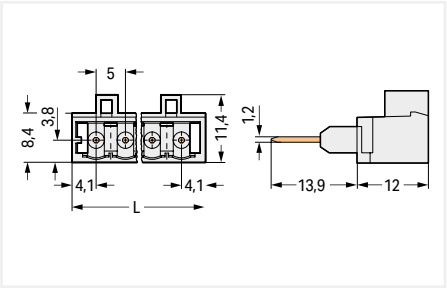
For approvals and corresponding ratings, visit www.wago.com

Male connector for rail-mount terminal blocks ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm / 0.197 inch ▸ Color: light gray

721-166/003-000

Pole No.	Item No.	PU
2	721-162/003-000	200
3	721-163/003-000	200
4	721-164/003-000	200
5	721-165/003-000	200
6	721-166/003-000	100
7	721-167/003-000	100
8	721-168/003-000	100
9	721-169/003-000	100
10	721-170/003-000	100
11	721-171/003-000	100
12	721-172/003-000	100
13	721-173/003-000	50
14	721-174/003-000	50
15	721-175/003-000	50
16	721-176/003-000	50
20	721-180/003-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

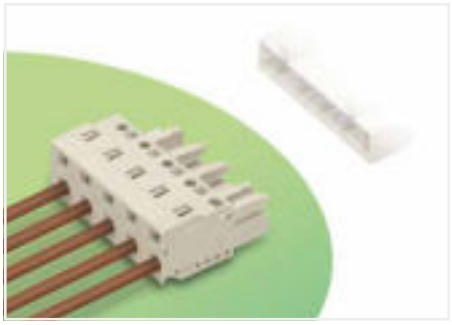
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

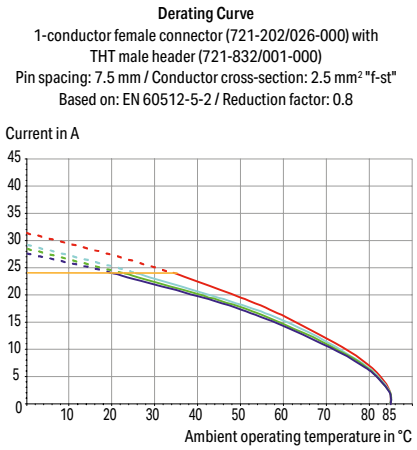
- Other pole numbers

1-conductor female plug ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- 100% protected against mismating
- Coding option available



The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 541
Insulation stop	Page 541
Marking	Page 865
Mounting	Page 546
Mounting adapter	Page 547
Strain relief	Page 545
Test and measurement	Page 539, 886
Tool	Page 538
Direct marking	Page 548
Cutout dimensions	Page 552
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

1-conductor female plug ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

	Locking of plug-in connection: Locking lever	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

721-205/026-000

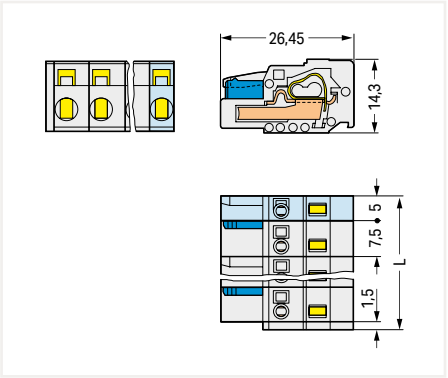
721-205/037-000

721-205/031-000

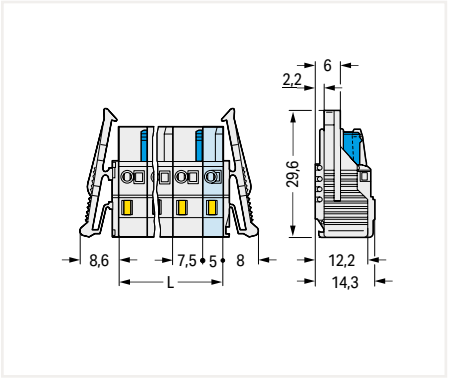
Pole No.	Item No.	PU
2	721-202/026-000	100
3	721-203/026-000	100
4	721-204/026-000	50
5	721-205/026-000	50
6	721-206/026-000	50
7	721-207/026-000	50
8	721-208/026-000	25
9	721-209/026-000	25
10	721-210/026-000	25
11	721-211/026-000	25
12	721-212/026-000	25

Pole No.	Item No.	PU
2	721-202/037-000	50
3	721-203/037-000	50
4	721-204/037-000	50
5	721-205/037-000	50
6	721-206/037-000	25
7	721-207/037-000	25
8	721-208/037-000	25
9	721-209/037-000	25
10	721-210/037-000	25
12	721-212/037-000	10

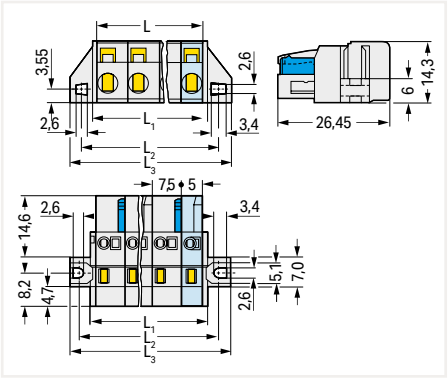
Pole No.	Item No.	PU
2	721-202/031-000	50
3	721-203/031-000	50
4	721-204/031-000	50
5	721-205/031-000	50
6	721-206/031-000	25
7	721-207/031-000	25
8	721-208/031-000	25
9	721-209/031-000	25
10	721-210/031-000	25
12	721-212/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm



L = (pole no. – 1) x pin spacing + 5 mm



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

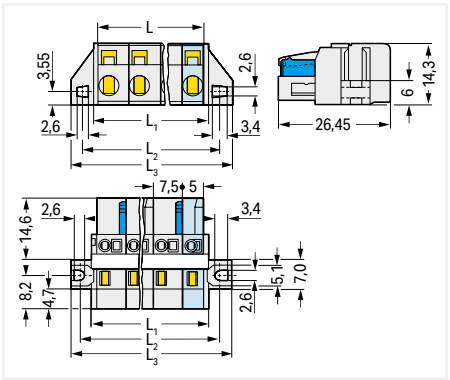
1-conductor female plug ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strips

721-208/027-000

Pole No.	Item No.	PU
6	721-206/027-000	25
8	721-208/027-000	25
9	721-209/027-000	25
12	721-212/027-000	10

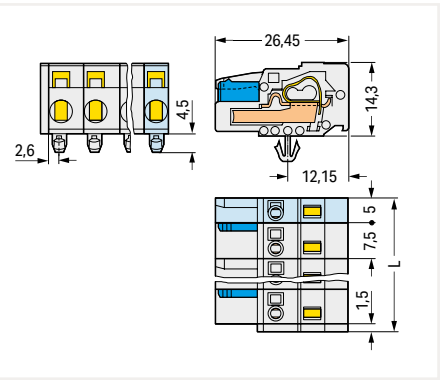


L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

721-205/008-000

Pole No.	Item No.	PU
2	721-202/008-000	100
3	721-203/008-000	100
4	721-204/008-000	50
5	721-205/008-000	50
6	721-206/008-000	50
7	721-207/008-000	50
8	721-208/008-000	25
9	721-209/008-000	25
10	721-210/008-000	25
11	721-211/008-000	10
12	721-212/008-000	25



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

8

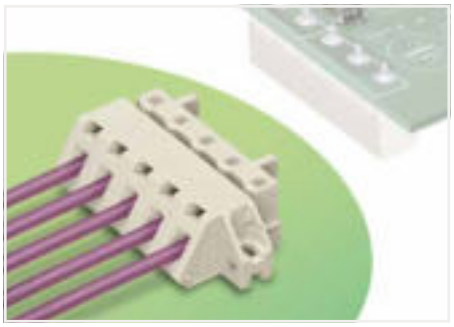
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

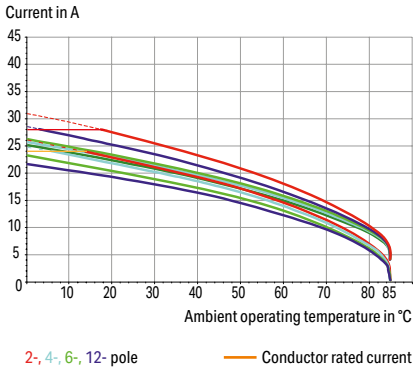
1-conductor female plug ▶ *MCS* MIDI ▶ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: light gray



- Universal connection for all conductor types
- Available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-35 rail mounted
- Easy conductor termination, even when halves are mated
- 100% protected against mismating

Derating Curve
1-conductor female connector (721-332/031-000) with THT male header (721-232/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Marking	Page 865
Mounting	Page 546
Test and measurement	Page 539
Tool	Page 538
Cutout dimensions	Page 552
Direct marking	Page 548

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	7 … 8 mm / 0.28 … 0.31 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

1-conductor female plug ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90 ° ▸ Color: light gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Snap-in foot

721-335/008-000

Pole No.	Item No.	PU
2	721-332/008-000	100
3	721-333/008-000	100
4	721-334/008-000	50
5	721-335/008-000	50
7	721-337/008-000	50
8	721-338/008-000	25
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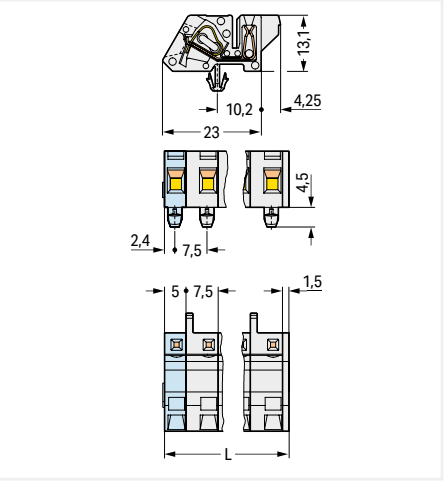
10	721-340/008-000	25
11	721-341/008-000	25
12	721-342/008-000	25

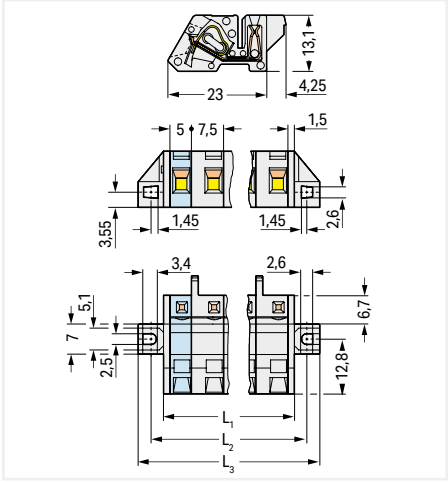


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

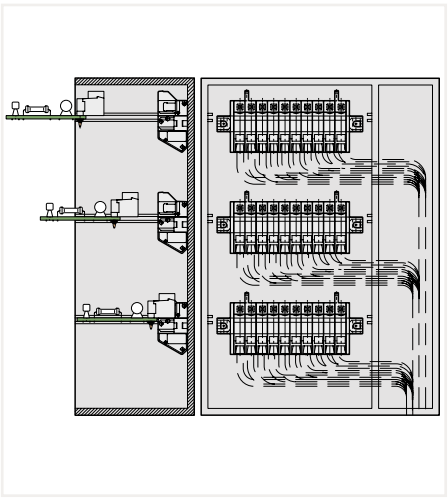
Mounting type: Panel mounting ▸ Mounting type: Mounting flange

721-335/031-000

Pole No.	Item No.	PU
2	721-332/031-000	50
3	721-333/031-000	50
4	721-334/031-000	50
5	721-335/031-000	50
6	721-336/031-000	25
7	721-337/031-000	25
8	721-338/031-000	25
9	721-339/031-000	25
10	721-340/031-000	25
11	721-341/031-000	10
12	721-342/031-000	10



L_1 = (pole no. – 1) x pin spacing + 5 mm + 3 mm
L_2 = (pole no. – 1) x pin spacing + 5 mm + 8.8 mm
L_3 = (pole no. – 1) x pin spacing + 5 mm + 14.8 mm



Multilevel arrangement in a distributed electronic housing

Angled female connector –
a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.

8

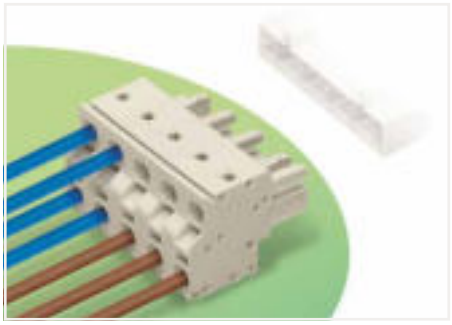
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

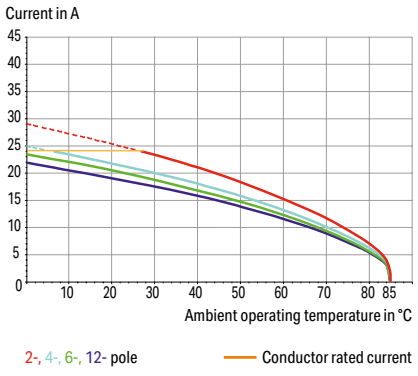
2-conductor female connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in terminations of solid and ferruled conductors
- 100% protected against mismating
- With coding fingers

Derating Curve
2-conductor female connector (721-2202/026-000) with THT male header (721-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 541
Marking	Page 865
Strain relief	Page 543
Test and measurement	Page 539
Tool	Page 870
Direct marking	Page 548

See technical section for further information

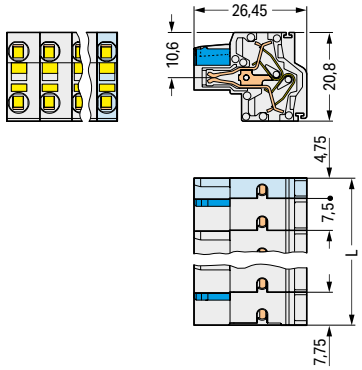
For approvals and corresponding ratings, visit www.wago.com

2-conductor female connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

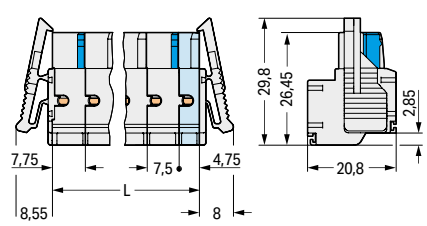
	Locking of plug-in connection: Locking lever

Pole No.	Item No.	PU
2	721-2202/026-000	100
3	721-2203/026-000	100
4	721-2204/026-000	50
5	721-2205/026-000	50
6	721-2206/026-000	50
7	721-2207/026-000	50
8	721-2208/026-000	25
9	721-2209/026-000	25
10	721-2210/026-000	25
11	721-2211/026-000	25
12	721-2212/026-000	25

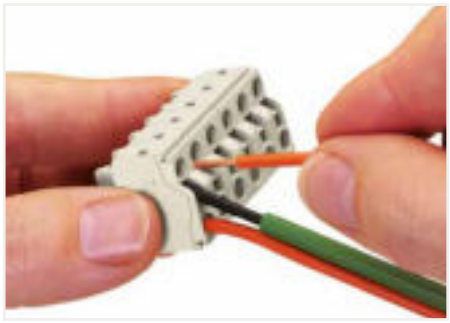


L = (pole no. – 2) x pin spacing + 12.5 mm
2-pole female connectors – one latch only

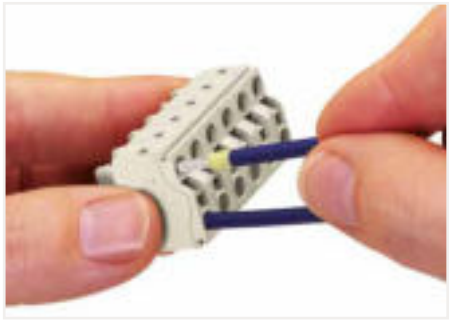
Pole No.	Item No.	PU
2	721-2202/037-000	50
3	721-2203/037-000	50
4	721-2204/037-000	50
5	721-2205/037-000	50
6	721-2206/037-000	25
7	721-2207/037-000	25
8	721-2208/037-000	25
9	721-2209/037-000	25
10	721-2210/037-000	25
11	721-2211/037-000	10
12	721-2212/037-000	10



L = (pole no. – 2) x pin spacing + 12.5 mm
2-pole female connectors – one latch only



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

8

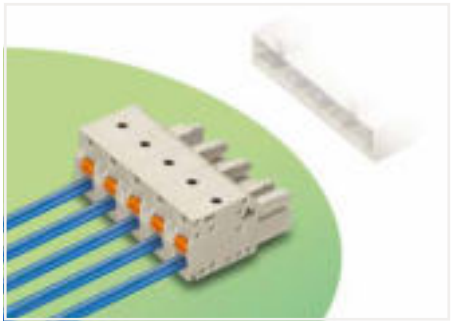
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

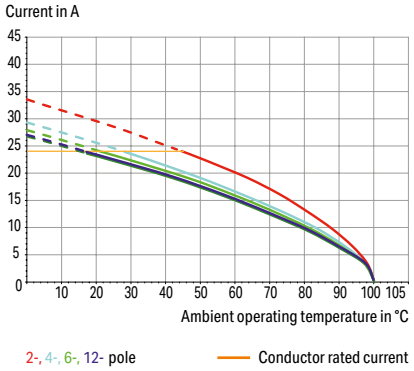
1-conductor female plug ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Simple, push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 100% protected against mismating
- Coding option available

Derating Curve
1-conductor female connector (2721-202/026-000) with THT male header (721-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 541
Marking	Page 865
Mounting	Page 546
Mounting adapter	Page 547
Strain relief	Page 543
Test and measurement	Page 539, 886
Tool	Page 870
Direct marking	Page 548
Cutout dimensions	Page 552

See technical section for further information

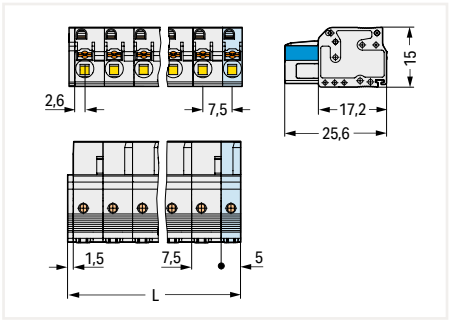
For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

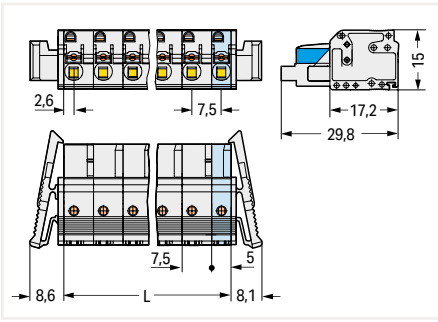
	Locking of plug-in connection: Locking lever	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange
2721-206/026-000	2721-206/037-000	2721-206/031-000

Pole No.	Item No.	PU
2	2721-202/026-000	100
3	2721-203/026-000	100
4	2721-204/026-000	50
5	2721-205/026-000	50
6	2721-206/026-000	50
7	2721-207/026-000	50
8	2721-208/026-000	25
9	2721-209/026-000	25
10	2721-210/026-000	25
11	2721-211/026-000	25
12	2721-212/026-000	25



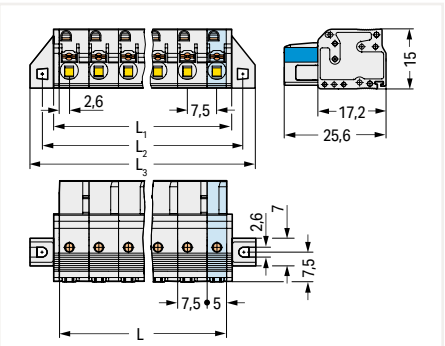
L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

Pole No.	Item No.	PU
2	2721-202/037-000	50
3	2721-203/037-000	50
4	2721-204/037-000	50
5	2721-205/037-000	50
6	2721-206/037-000	25
7	2721-207/037-000	25
8	2721-208/037-000	25
9	2721-209/037-000	25
10	2721-210/037-000	25
11	2721-211/037-000	10
12	2721-212/037-000	10



L = (pole no. – 1) x pin spacing + 5 mm
2-pole female connectors – one latch only

Pole No.	Item No.	PU
2	2721-202/031-000	50
3	2721-203/031-000	50
4	2721-204/031-000	50
5	2721-205/031-000	50
6	2721-206/031-000	25
7	2721-207/031-000	25
8	2721-208/031-000	25
9	2721-209/031-000	25
10	2721-210/031-000	25
11	2721-211/031-000	10
12	2721-212/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

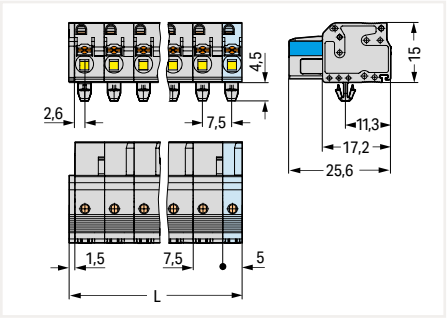
1-conductor female plug ▶ *MCS* MIDI ▶ 2721 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0 ° ▶ Color: light gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot

2721-206/008-000

Pole No.	Item No.	PU
2	2721-202/008-000	100
3	2721-203/008-000	100
4	2721-204/008-000	50
5	2721-205/008-000	50
6	2721-206/008-000	50
7	2721-207/008-000	50
8	2721-208/008-000	25
9	2721-209/008-000	25
10	2721-210/008-000	25
11	2721-211/008-000	10
12	2721-212/008-000	25



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

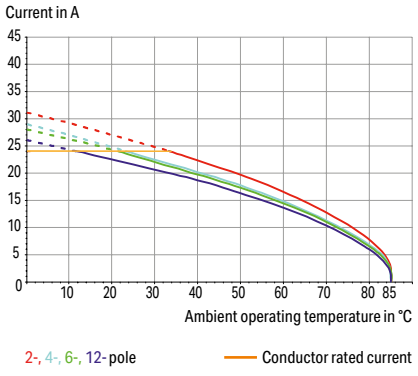
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-202/026-000) with 1-conductor male connector (723-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 540
Ferrule	Page 879
General accessories	Page 541
Insulation stop	Page 541
Mounting	Page 546
Mounting adapter	Page 547
Strain relief	Page 545
Tool	Page 538
Direct marking	Page 548
Cutout dimensions	Page 552

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

1-conductor male connector ▸ *MCS* MIDI ▸ 723 Series

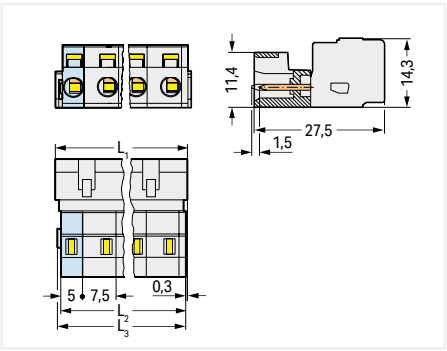
Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange	Mounting type: Feed-through mounting ▸ Mounting type: Snap-in
723-605	723-605/019-000	723-606/114-000

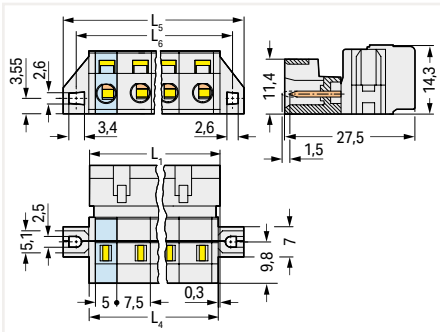
Pole No.	Item No.	PU
2	723-602	100
3	723-603	100
4	723-604	50
5	723-605	50
6	723-606	50
7	723-607	50
8	723-608	25
9	723-609	25
10	723-610	25
11	723-611	25
12	723-612	25

Pole No.	Item No.	PU
2	723-602/019-000	50
3	723-603/019-000	50
4	723-604/019-000	50
5	723-605/019-000	50
6	723-606/019-000	25
7	723-607/019-000	25
8	723-608/019-000	25
9	723-609/019-000	25
10	723-610/019-000	25
11	723-611/019-000	10
12	723-612/019-000	10

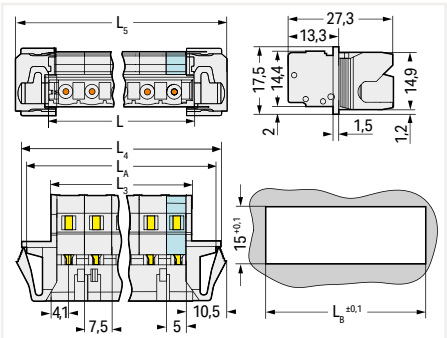
Pole No.	Item No.	PU
2	723-602/114-000	50
3	723-603/114-000	50
4	723-604/114-000	50
5	723-605/114-000	25
6	723-606/114-000	25
7	723-607/114-000	25
8	723-608/114-000	25
9	723-609/114-000	25
10	723-610/114-000	10
11	723-611/114-000	10
12	723-612/114-000	10



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 – 1.7 mm
L_3 = L_1 – 1.2 mm



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_4 = L_1 – 0.2 mm
L_5 = L_4 + 5.8 mm
L_6 = L_4 + 11.8 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

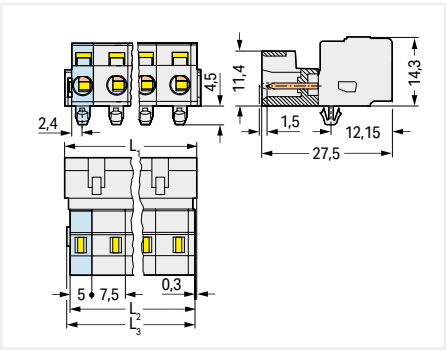
1-conductor male connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

723-605/018-000

Pole No.	Item No.	PU
2	723-602/018-000	100
3	723-603/018-000	100
4	723-604/018-000	50
5	723-605/018-000	50
6	723-606/018-000	50
7	723-607/018-000	50
8	723-608/018-000	25
9	723-609/018-000	25
10	723-610/018-000	25
11	723-611/018-000	25
12	723-612/018-000	25



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 – 1.7 mm
L_3 = L_1 – 1.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

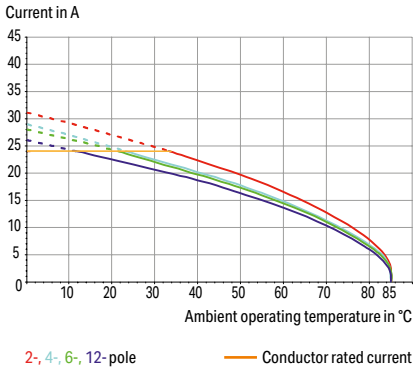
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding ground contact ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-202/026-000) with 1-conductor male connector (723-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 540
Ferrule	Page 879
General accessories	Page 541
Insulation stop	Page 541
Mounting	Page 546
Mounting adapter	Page 547
Strain relief	Page 545
Tool	Page 538
Direct marking	Page 548
Cutout dimensions	Page 552

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

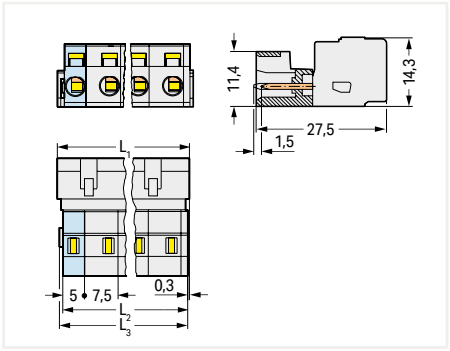
1-conductor male connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding ground contact ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

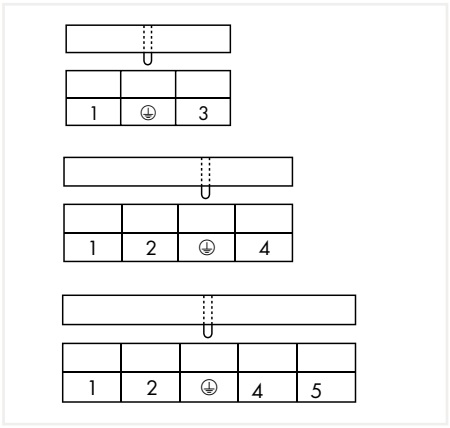
	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange	Mounting type: Feed-through mounting ▸ Mounting type: Snap-in

723-605/000-042

Pole No.	Item No.	PU
3	723-603/000-042	100
4	723-604/000-042	50
5	723-605/000-042	50



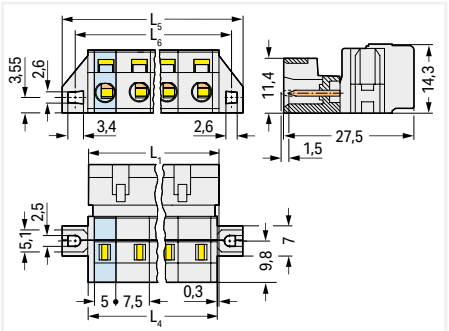
L_1 = (pole no. – 1) x pin spacing + 8.2 mm
$L_2 = L_1 - 1.7$ mm
$L_3 = L_1 - 1.2$ mm



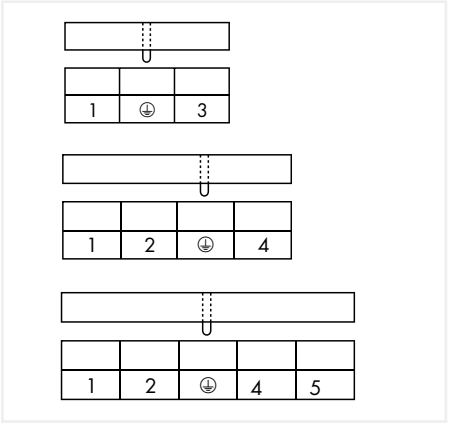
Preceding ground contact position

723-605/019-042

Pole No.	Item No.	PU
3	723-603/019-042	50
4	723-604/019-042	50
5	723-605/019-042	50



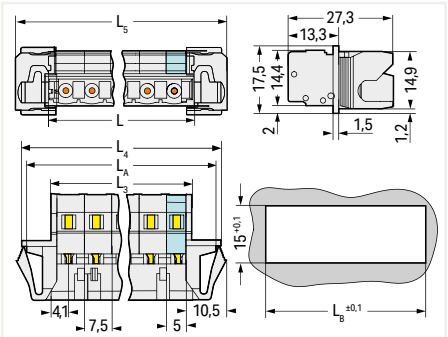
L_1 = (pole no. – 1) x pin spacing + 8.2 mm
$L_4 = L_1 - 0.2$ mm
$L_5 = L_4 + 5.8$ mm
$L_6 = L_4 + 11.8$ mm



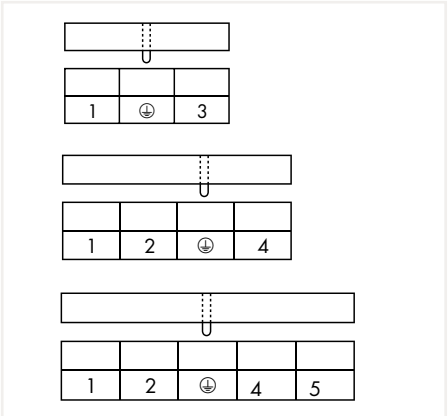
Preceding ground contact position

723-606/114-000

Pole No.	Item No.	PU
3	723-603/114-042	50
4	723-604/114-042	50
5	723-605/114-042	25



L = (pole no. – 1) x pin spacing + 8.2 mm
$L_3 = L - 0.2$ mm
$L_4 = L_3 + 15.2$ mm
$L_5 = L_3 + 18$ mm
$L_A = L_3 + 12.6$ mm
$L_B = L_3 + 13.2$ mm



Preceding ground contact position

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

8

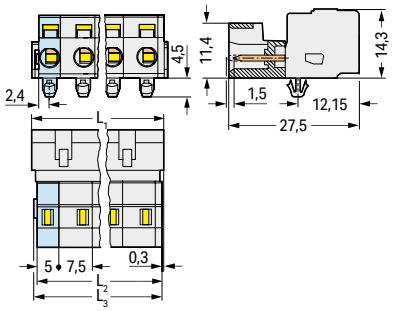
1-conductor male connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding ground contact ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: light gray

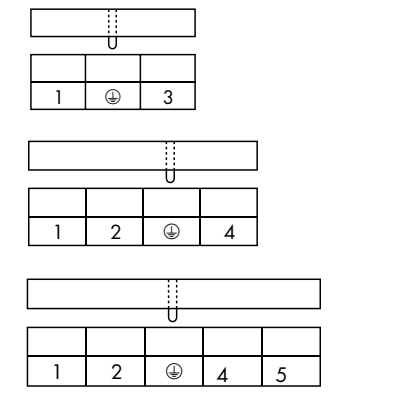
Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

723-605/018-042

Pole No.	Item No.	PU
3	723-603/018-042	100
4	723-604/018-042	50
5	723-605/018-042	50



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 – 1.7 mm
L_3 = L_1 – 1.2 mm



Preceding ground contact position

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

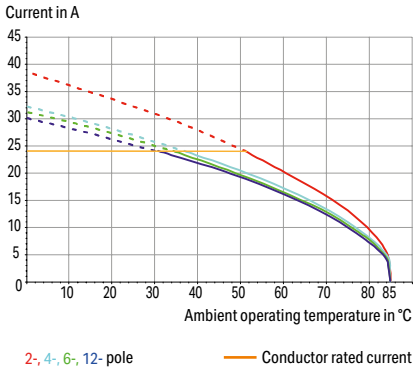
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- 100 % protected against mismating
- With coding fingers

Derating Curve
THT female header (722-832) with
1-conductor male connector (723-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 869
Test and measurement	Page 539, 886
Cutout dimensions	Page 552
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

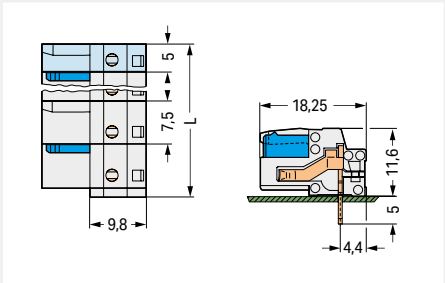
THT female header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0 °

722-835

Pole No.	Item No.	PU
2	722-832	100
3	722-833	100
4	722-834	50
5	722-835	50
6	722-836	50
7	722-837	50
8	722-838	25
9	722-839	25
10	722-840	25
12	722-842	25

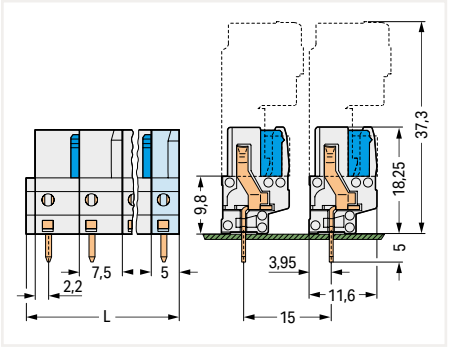


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90 °

722-735

Pole No.	Item No.	PU
2	722-732	100
3	722-733	100
4	722-734	50
5	722-735	50
6	722-736	50
7	722-737	50
8	722-738	25
9	722-739	25
10	722-740	25
11	722-741	25
12	722-742	25

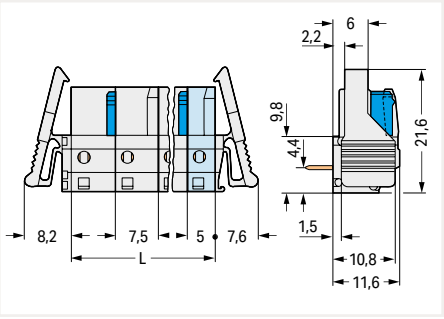


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

722-835/039-000

Pole No.	Item No.	PU
2	722-832/039-000	50
3	722-833/039-000	50
4	722-834/039-000	50
5	722-835/039-000	50
6	722-836/039-000	25
7	722-837/039-000	25
8	722-838/039-000	25
9	722-839/039-000	25
10	722-840/039-000	25
11	722-841/039-000	10
12	722-842/039-000	10



L = (pole no. – 1) x pin spacing + 5 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins

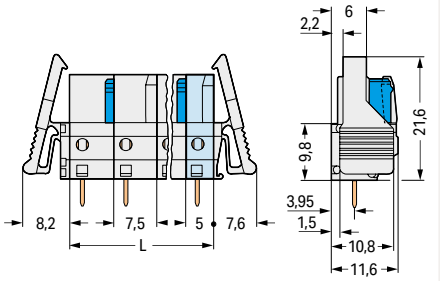
THT female header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

722-735/039-000

Pole No.	Item No.	PU
2	722-732/039-000	50
3	722-733/039-000	50
4	722-734/039-000	50
5	722-735/039-000	50
6	722-736/039-000	25
7	722-737/039-000	25
8	722-738/039-000	25
9	722-739/039-000	25
10	722-740/039-000	25
11	722-741/039-000	10
12	722-742/039-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins

THT female header ▸ *MCS* MIDI ▸ 722 Series

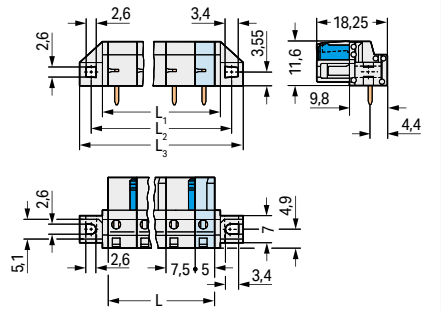
Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

722-835/031-000

Pole No.	Item No.	PU
2	722-832/031-000	50
3	722-833/031-000	50
4	722-834/031-000	50
5	722-835/031-000	50
6	722-836/031-000	25
7	722-837/031-000	25
8	722-838/031-000	25
9	722-839/031-000	25
10	722-840/031-000	25
11	722-841/031-000	10
12	722-842/031-000	10

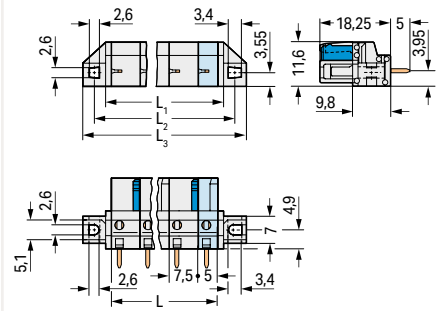


L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90 °

722-735/031-000

Pole No.	Item No.	PU
2	722-732/031-000	50
3	722-733/031-000	50
4	722-734/031-000	50
5	722-735/031-000	50
6	722-736/031-000	25
7	722-737/031-000	25
8	722-738/031-000	25
9	722-739/031-000	25
10	722-740/031-000	25
11	722-741/031-000	10
12	722-742/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins

THT female header ▸ *MCS* MIDI ▸ 722 Series

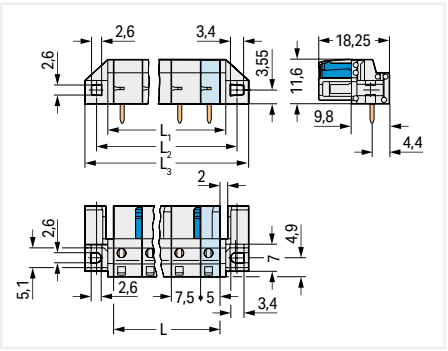
Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Mounting type: Flush feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

722-835/047-000

Pole No.	Item No.	PU
2	722-832/047-000	50
3	722-833/047-000	50
4	722-834/047-000	50
5	722-835/047-000	50
6	722-836/047-000	25
7	722-837/047-000	25
8	722-838/047-000	25
9	722-839/047-000	25
10	722-840/047-000	25
11	722-841/047-000	10
12	722-842/047-000	10

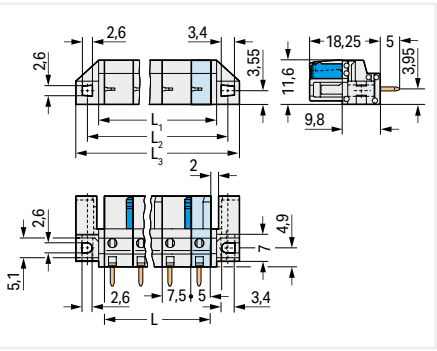


L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90 °

722-735/047-000

Pole No.	Item No.	PU
2	722-732/047-000	50
3	722-733/047-000	50
4	722-734/047-000	50
5	722-735/047-000	50
6	722-736/047-000	25
7	722-737/047-000	25
8	722-738/047-000	25
9	722-739/047-000	25
10	722-740/047-000	25
11	722-741/047-000	10
12	722-742/047-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

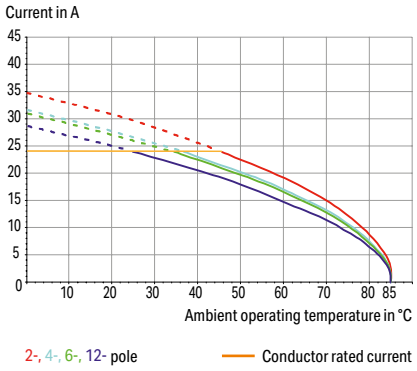
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins

THT male header ▸ *MCS* MIDI ▸ 721 Series
Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-202/026-000) with THT male header (721-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 540

See technical section for further information

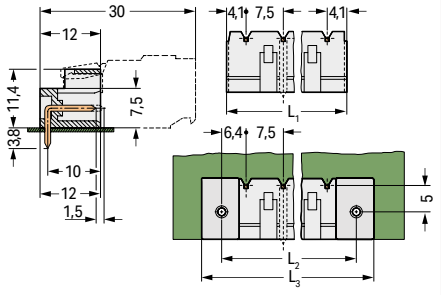
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

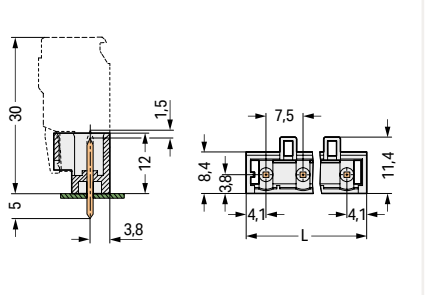
Pole No.	Item No.	PU
2	721-832/001-000	200
3	721-833/001-000	200
4	721-834/001-000	100
5	721-835/001-000	100
6	721-836/001-000	100
7	721-837/001-000	50
8	721-838/001-000	50
9	721-839/001-000	50
10	721-840/001-000	50
11	721-841/001-000	50
12	721-842/001-000	50



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

Pole No.	Item No.	PU
2	721-232/001-000	200
3	721-233/001-000	200
4	721-234/001-000	100
5	721-235/001-000	100
6	721-236/001-000	100
7	721-237/001-000	50
8	721-238/001-000	50
9	721-239/001-000	50
10	721-240/001-000	50
11	721-241/001-000	50
12	721-242/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

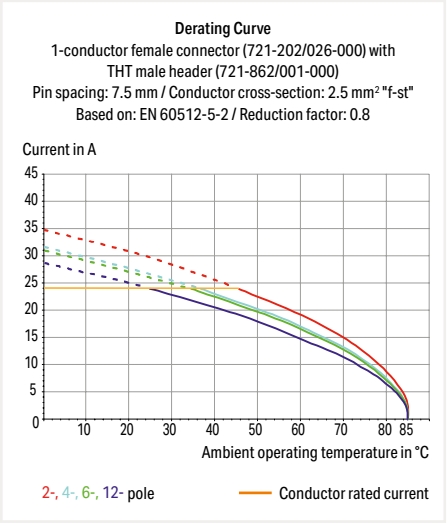
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of horter headers
- 100 % protected against mismating
- With coding fingers



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	16 A	16 A	16 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approbations per	UL 1977			
Rated voltage	600 V			
Rated current	15 A			
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 540

See technical section for further information

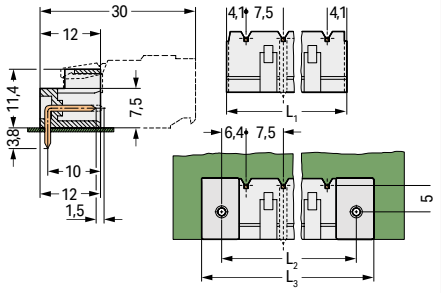
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

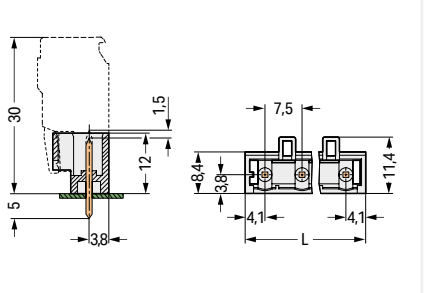
Pole No.	Item No.	PU
2	721-862/001-000	200
3	721-863/001-000	200
4	721-864/001-000	100
5	721-865/001-000	100
6	721-866/001-000	100
7	721-867/001-000	50
8	721-868/001-000	50
9	721-869/001-000	50
10	721-870/001-000	50
11	721-871/001-000	50
12	721-872/001-000	50



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

Pole No.	Item No.	PU
2	721-262/001-000	100
3	721-263/001-000	200
4	721-264/001-000	100
5	721-265/001-000	100
6	721-266/001-000	100
7	721-267/001-000	50
8	721-268/001-000	50
9	721-269/001-000	50
10	721-270/001-000	50
11	721-271/001-000	50
12	721-272/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

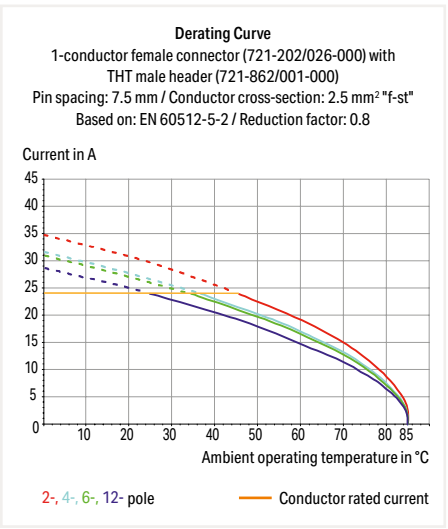
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ with preceding ground contact ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismating
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 540

See technical section for further information

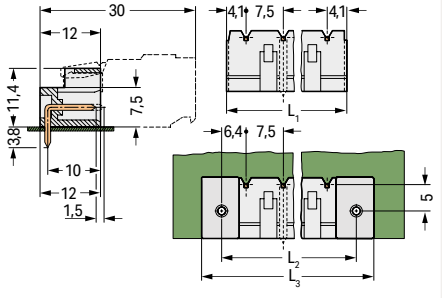
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MIDI ▸ 721 Series

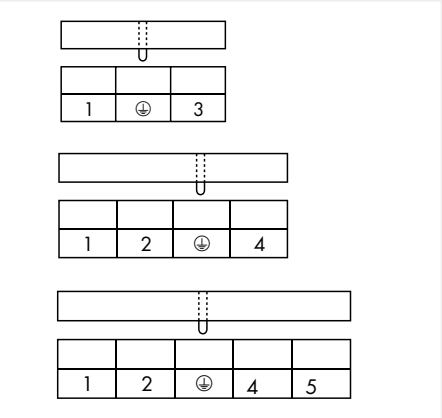
Pin spacing: 7.5 mm / 0.295 inch ▸ with preceding ground contact ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

Pole No.	Item No.	PU
3	721-833/001-040	200
4	721-834/001-040	100
5	721-835/001-040	100



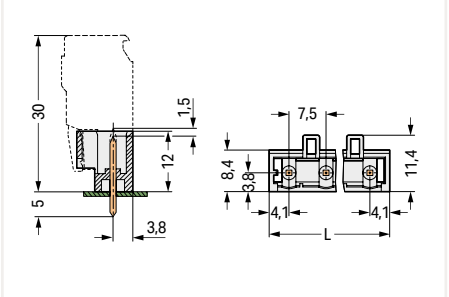
L_1 = (pole no. – 1) x pin spacing + 8.2 mm
$L_2 = L_1 + 5$ mm
$L_3 = L_2 + 7.4$ mm



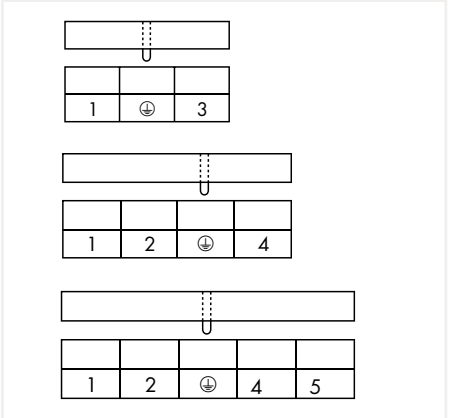
Preceding ground contact position

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

Pole No.	Item No.	PU
3	721-233/001-040	200
4	721-234/001-040	100
5	721-235/001-040	100



L = (pole no. – 1) x pin spacing + 8.2 mm



Preceding ground contact position

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

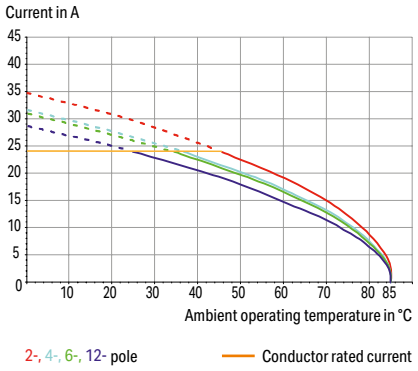
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ with preceding ground contact ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of horter headers
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-202/026-000) with THT male header (721-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 540

See technical section for further information

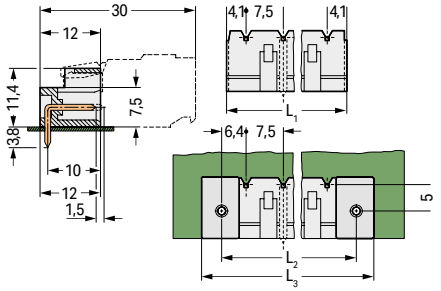
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MIDI ▸ 721 Series

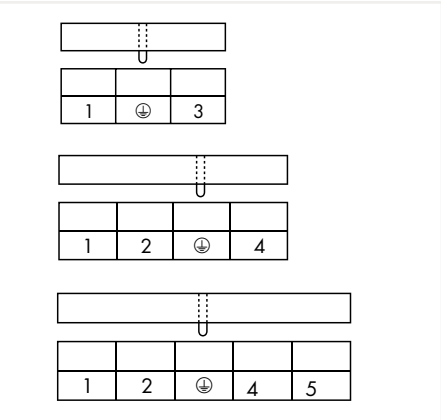
Pin spacing: 7.5 mm / 0.295 inch ▸ with preceding ground contact ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

Pole No.	Item No.	PU
3	721-863/001-040	200
4	721-864/001-040	100
5	721-865/001-040	100



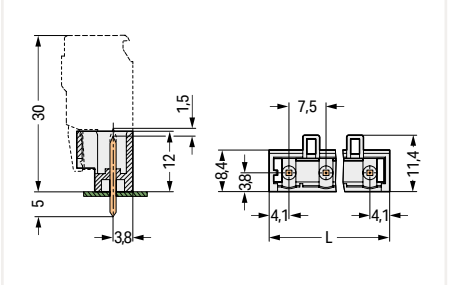
L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm



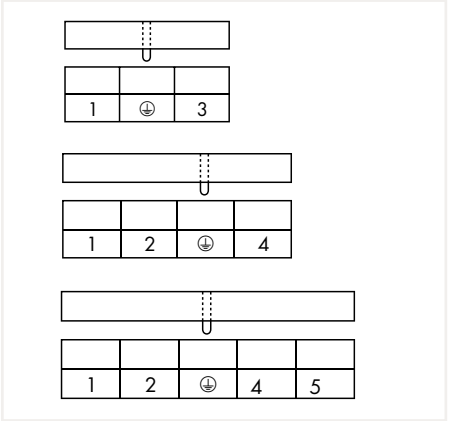
Preceding ground contact position

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

Pole No.	Item No.	PU
3	721-263/001-040	200
4	721-264/001-040	100
5	721-265/001-040	100



L = (pole no. – 1) x pin spacing + 8.2 mm



Preceding ground contact position

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

8

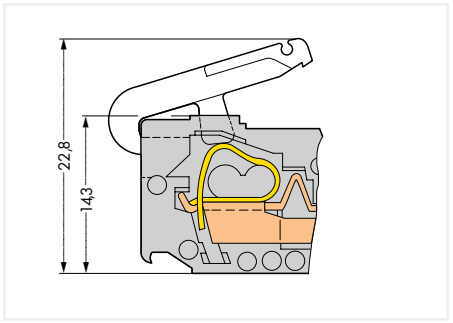
Operating Tools
MCS MIDI

Operating lever; for male and female connectors equipped with CAGE CLAMP® connection; 5/5.08 mm and 7.5/7.62 mm pin spacing		
Color	**Item No.**	PU (SPU)
natural	**231-131**	100 (25)
red	**231-291**	100 (25)

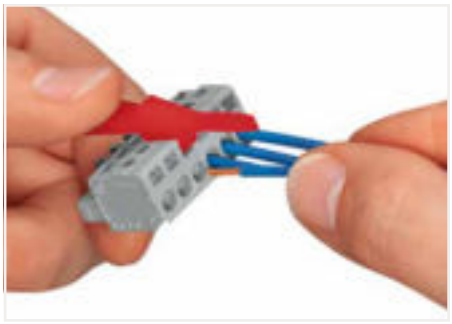
Operating tool; for male and female connectors equipped with CAGE CLAMP® connection; 5/5.08 mm and 7.5/7.62 mm pin spacing		
Color	**Item No.**	PU (SPU)
natural	**231-159**	100 (25)
red	**231-231**	100 (25)

Inserting a conductor via operating lever.

Conductor termination parallel to CAGE CLAMP® actuation



Operating levers are not suitable for panel-mount, angled female connectors.



Conductor termination perpendicular to CAGE CLAMP® actuation

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

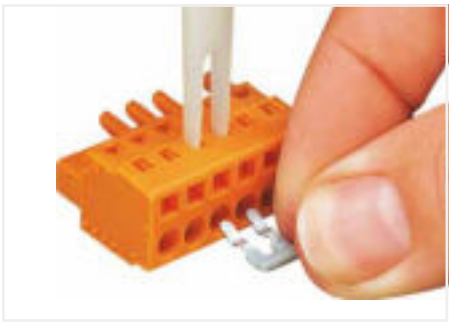
Operating Tools and Test Plug Adapters
MCS MIDI

Multipole operating tool; insulated; operation parallel to conductor entry; suitable for male and female connectors; with CAGE CLAMP®, 5/5.08 mm pin spacing		
	Item No.	PU (SPU)
1-pole	209-130	100 (1)
2-pole	280-432	100 (1)
3-pole	280-433	100 (1)
4-pole	280-434	40 (1)
5-pole	280-435	40 (1)
6-pole	280-436	40 (1)
7-pole	280-437	30 (1)
8-pole	280-438	30 (1)
9-pole	280-439	30 (1)
10-pole	280-440	30 (1)

Operating tool; insulated; operation perpendicular to conductor entry; suitable for male and female connectors; with CAGE CLAMP®, 5/5.08 pin spacing		
	Item No.	PU (SPU)
2-pole	209-132	40 (1)

Test plug adapter; for female connectors; light gray		
Pin Spacing	Item No.	PU
5/5.08 mm	231-661	100
7.5/7.62 mm	231-662	100

Inserting male or female connectors with long contact pins into 280 Series Rail-Mount Terminal Blocks via multipole operating tool (max. 10-pole for field assembly). Using CAGE CLAMP®-equipped male and female connectors (5/5.08 mm pin spacing), this operating tool allows up to ten CAGE CLAMP® units to be opened simultaneously, e.g., when inserting 231-90x Comb-Style Jumper Bars. Wiring male or female connectors should be performed in a suitable mount.



Operating tool for 231-902 Comb-Style Jumper Bars

Test plug adapter with CAGE CLAMP® connection

Electrical Data	
Ratings per	IEC/EN 60664-1
Overvoltage category	III
Pollution degree	2
Rated voltage	320 V
Rated surge voltage	4 kV
Rated current	12 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.33 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Coding Keys
MCS MIDI

Coding key; for male headers

Color	Item No.	PU (SPU)
○ light gray	231-500	200 (100)

Coding key; for male headers; 5/5.08 mm pin spacing

Color	Item No.	PU
○ light gray	231-129	100

Coding key; for male headers; 7.5/7.62 mm pin spacing

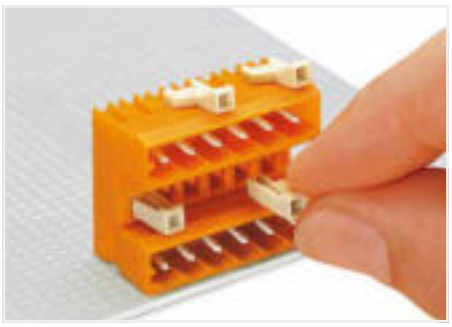
Color	Item No.	PU
○ light gray	231-130	100

Coding pin; for male headers for double-deck assembly; snaps into lower level

Color	Item No.	PU
○ light gray	231-160	100

Inserting separators for group formation directly into MCS MIDI Classic Male Headers.
Group formation using separators means that pole count is reduced by at least one pole. Female connectors with integrated end plates and 5/5.08 mm pin spacing are available for group formation without loss of poles. Group formation without loss of poles is possible using standard female connectors (7.5/7.62 mm pin spacing) without separators.

Snap-on coding key for male headers with solder pins and CAGE CLAMP®-equipped male connectors.
The last pole of male and female connectors with 7.5 mm pin spacing has a width of 5 mm;
for 7.62 mm pin spacing, the pole width is 5.08 mm.
Always use a 231-129 Coding Key for coding this pole.



Coding a THT double-deck male header – lower level.

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Lockout Caps, Insulation Stops and Locking Devices
MCS MIDI

Lockout caps; for male and female connectors equipped with CAGE CLAMP® connection

Color	Item No.	PU (SPU)
gray	231-668	500 (100)
orange	231-669	500 (100)

Insulation stop; for male and female connectors equipped with CAGE CLAMP® or Push-in CAGE CLAMP® connection; with CAGE CLAMP®; 5/5.08 mm pin spacing

Color	Conductor Size	Item No.	PU
white	0.08 … 0.2 mm² „e“ 0.08 … 0.14 mm² „f“	231-670	200
light gray	0.25 … 0.5 mm²	231-671	200
dark gray	0.27 … 1 mm²	231-672	200

7.5/7.62 mm pin spacing

Color	Conductor Size	Item No.	PU
white	0.08 … 0.2 mm² „e“ 0.08 … 0.14 mm² „f“	231-673	200
light gray	0.25 … 0.5 mm²	231-674	200
dark gray	0.27 … 1 mm²	231-675	200

Locking devices; for angled THT male headers with solder pins

Color	Item No.	PU
gray	231-193	100
orange	231-393	100

Screws for locking devices

Type	Item No.	PU
Screw with nut		
M2 x 12 mm	231-195	100
Self-tapping screw; 1.8 mm Ø mounting hole		
B 2.2 x 13 mm	231-194	100

Sealing unnecessary clamping points in CAGE CLAMP®-equipped male and female connectors (e.g., when doubling the pin spacing to meet clearance and creepage distance requirements, or when higher rated voltage is required). Lockout pins are not suitable for panel-mount, angled female connectors.

The wiring of programmable logic controllers and microprocessor-operated control circuits often relies on very small, fine-stranded conductors. These conductors are highly flexible and deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all. Common to all terminal block types currently offered, this problem creates unnecessary downtime for troubleshooting.

Insulation stops for connectors reliably ensure proper termination. Insulation stops automatically bundle the cores of fine-stranded conductors when inserted into the clamping unit, preventing splaying. This also limits the conductor entry to a defined cross sectional area – ensuring the actual conductor, not the insulation, will enter the clamping unit

Insulation stops are available as dividable 5-pole strips for MCS MIDI Male and Female Connectors. Insulation stop usage will not affect the conductor strip lengths for the aforementioned connectors.

Insulation stops are not suitable for panel-mount female connectors.

Locking devices enhance connection reliability between male headers with angled solder pins and the PCB. This substantially reduces mechanical stress on both solder pins and joints, particularly when dealing with small lengths and frequent mating cycles.

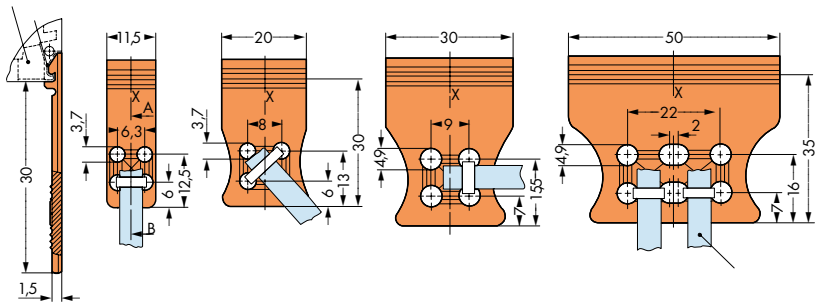
8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Strain Relief Plate; Factory Assembled; for Male and Female Connectors with CAGE CLAMP® Connection
MCS MIDI

5/5.08 mm pin spacing; orange		
Pole No.	Width	Item No. Suffix *
2 … 3	11.5 mm	…/032-000
4 … 5	20 mm	…/033-000
6 … 9	30 mm	…/034-000
10 … 24	50 mm	…/035-000

7.5/7.62 mm pin spacing; gray		
Pole No.	Width	Item No. Suffix *
2 … 3	11.5 mm	…/032-000
4 … 5	20 mm	…/033-000
6 … 9	30 mm	…/034-000
10 … 24	50 mm	…/035-000



Both CAGE CLAMP®-equipped male and female connectors can be fitted with a strain relief plate. The strain relief plates must be pre-assembled (glued) prior to delivery for connector models equipped with CAGE CLAMP® connection. These strain relief plates are available in four different widths and are allocated to the specific pin spacing and pole number (as shown above). Angled female connectors for panel mounting cannot be fitted with strain relief plates.

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

Cable ties and binding tools are not offered by WAGO.
The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Ordering example:
1-conductor female connector;
with strain relief plate;
5.08 mm pin spacing; 12-pole; orange:
231-312/026-000/035-000

Ordering example:
1-conductor female connector;
with strain relief plate;
5 mm pin spacing; 3-pole; gray:
231-103/026-000/032-000

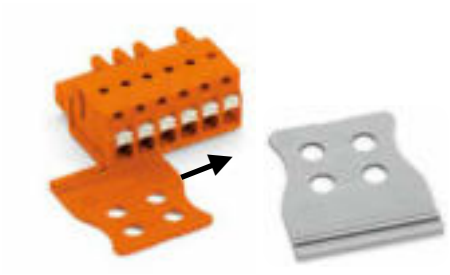
Gray strain relief plates are used for light gray 721, 722 and 723 Series Male and Female Connectors equipped with CAGE CLAMP® connection.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

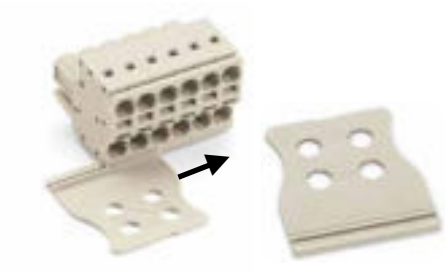
Strain Relief Plate; for Male and Female Connectors with Push-in CAGE CLAMP® Connection; 2721, 2231 Series and 2-Conductor Female Connectors 231, 721 Series

MCS MIDI

for inserting; 5/5.08 mm pin spacing



for inserting; 7.5/7.62 mm pin spacing



factory-assembled

light gray

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-127	100 (25)
3 … 4	12.5 mm	734-128	100 (25)
5 … 7	25 mm	734-129	100 (25)
8 … 11	35 mm	734-126	100 (25)
12 … 16	55 mm	734-426	50 (25)
17 … 24	75 mm	734-427	50 (25)

light gray

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-127	100 (25)
2 … 3	12.5 mm	734-128	100 (25)
4 … 6	25 mm	734-129	100 (25)
7 … 9	35 mm	734-126	100 (25)
10 … 12	55 mm	734-426	50 (25)
13 … 16	75 mm	734-427	50 (25)

5/5.08 mm and 7.5/7.62 mm pin spacing

Pole No.	Width	Item No. Suffix *
2	6 mm	…/132-000
2 … 3	12.5 mm	…/133-000
4 … 6	25 mm	…/134-000
7 … 9	35 mm	…/135-000
10 … 12	55 mm	…/136-000
13 … 16	75 mm	…/137-000

gray

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-327	100 (25)
3 … 4	12.5 mm	734-328	100 (25)
5 … 7	25 mm	734-329	100 (25)
8 … 11	35 mm	734-326	100 (25)
12 … 16	55 mm	734-430	50 (25)
17 … 24	75 mm	734-431	50 (25)

gray

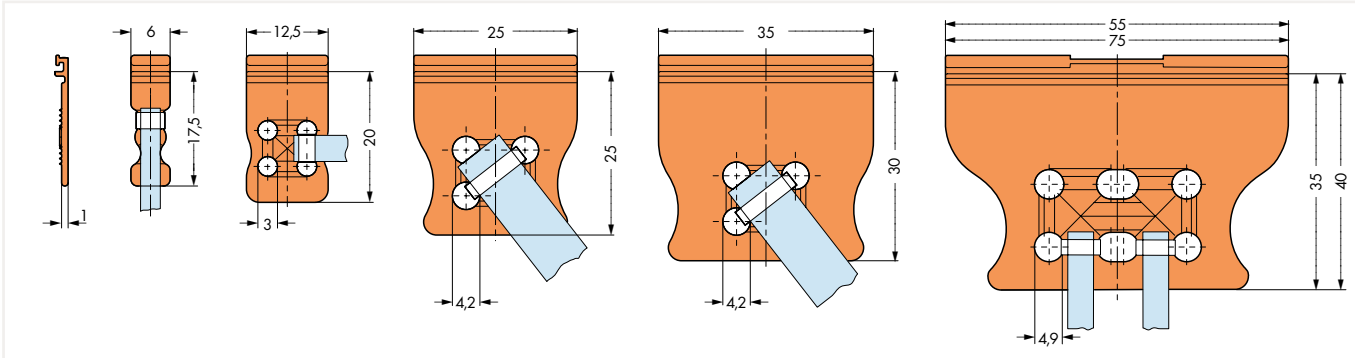
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-327	100 (25)
2 … 3	12.5 mm	734-328	100 (25)
4 … 6	25 mm	734-329	100 (25)
7 … 9	35 mm	734-326	100 (25)
10 … 12	55 mm	734-430	50 (25)
13 … 16	75 mm	734-431	50 (25)

orange

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-227	100 (25)
3 … 4	12.5 mm	734-228	100 (25)
5 … 7	25 mm	734-229	100 (25)
8 … 11	35 mm	734-226	100 (25)
12 … 16	55 mm	734-428	50 (25)
17 … 24	75 mm	734-429	50 (25)

orange

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-227	100 (25)
2 … 3	12.5 mm	734-228	100 (25)
4 … 6	25 mm	734-229	100 (25)
7 … 9	35 mm	734-226	100 (25)
10 … 12	55 mm	734-428	50 (25)
13 … 16	75 mm	734-429	50 (25)



Female connectors with Push-in CAGE CLAMP® can be retrofitted with a strain relief plate or pre-assembled with one at the factory. These strain relief plates are available in six different widths and are allocated to the specific pin spacing and pole number (as shown left). The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways.

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

Cable ties and binding tools are not offered by WAGO.
The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-On Type Strain Releif Housing; Consisting of Strain Relief Support and Housing
MCS MIDI

5 mm pin spacing; gray		
Pole No.	Item No.	PU
2	232-602	25
3	232-603	25
4	232-604	25
5	232-605	25
6	232-606	25
7	232-607	25
8	232-608	25
9	232-609	25
10	232-610	25
12	232-612	25

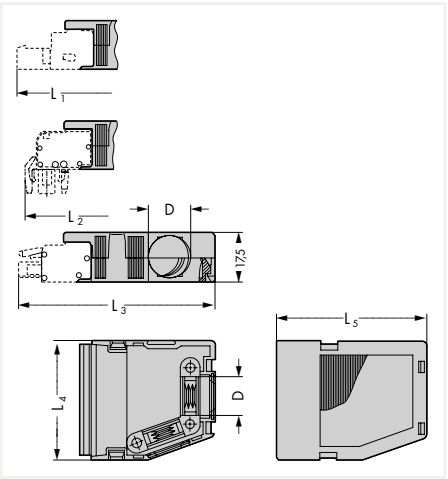
5.08 mm pin spacing; orange		
Pole No.	Item No.	PU
2	232-632	25
3	232-633	25
4	232-634	25
5	232-635	25
6	232-636	25
7	232-637	25
8	232-638	25
9	232-639	25
10	232-640	25
12	232-642	25
16	232-646	25

Cable clamp; for strain relief		
Pole No.	Item No.	PU
4 … 6	209-177	25
7 … 16	209-174	25

Mounting screws; for cable clamp		
Pole No.	Item No.	PU
4 … 6	209-176	50
7 … 16	209-173	50

2- to 3-pole; only suitable for cable ties; 1 cable outlet (rear side); max. 3.6 mm cable tie width
4- to 6-pole; suitable for cable clamp; 1 x cable outlet (rear side)
7- to 8-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 1 x cable outlet (side); 1 cover (included)
9- to 16-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side); 2 covers (included)

Cable ties and binding tools are not offered by WAGO.



Strain relief housing dimensions (in mm):							
Pole No.	L_4 (5 mm)	L_4 (5,08 mm)	L_1	L_2	L_3	L5	Cable Ø (max.)
2	13	13	59	55.5	58	41.5	6
3	18	18	59	55.5	58	41.5	7.5
4	23	23	59	55.5	58	41.5	9.5
5	28	28	59	55.5	58	41.5	9.5
6	33	33	59	55.5	58	41.5	9.5
7	38	38	71.5	68	70.5	54	14
8	43	43	71.5	68	70.5	54	14
9	48	48.7	71.5	68	70.5	54	14
10	53	53.8	71.5	68	70.5	54	14
12	63	64	71.5	68	70.5	54	14
16	85	85	71.5	68	70.5	54	14

Snapping a cover into the unused cable outlet.

Snapping on a strain relief housing, demonstrated with a female connector with locking levers. Cable exits laterally – strain relief by cable tie (up to a width of 4 mm).

Disassembling a strain relief housing is only possible using an operating tool (e.g., 210-719).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-On Type Strain Releif Housing; Consisting of Strain Relief Support and Housing
MCS MIDI

7.5 mm pin spacing; light gray		
Pole No.	**Item No.**	PU
2	**232-662**	25
3	**232-663**	25
4	**232-664**	25
5	**232-665**	25
7	**232-667**	25
10	**232-670**	25

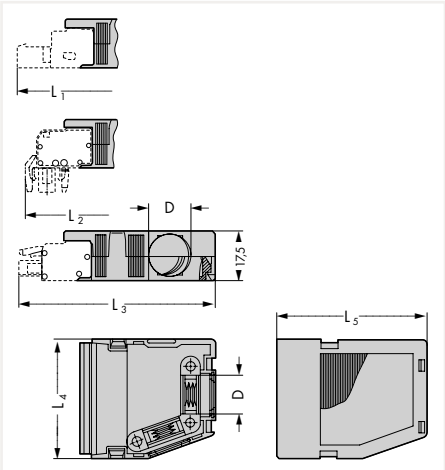
7.62 mm pin spacing; orange		
Pole No.	**Item No.**	PU
2	**232-682**	25
3	**232-683**	25
4	**232-684**	25
5	**232-685**	25
7	**232-687**	25

Cable clamp; for strain relief		
Pole No.	**Item No.**	PU
4 … 6	**209-177**	25
7 … 16	**209-174**	25

Mounting screws; for cable clamp		
Pole No.	**Item No.**	PU
4 … 6	**209-176**	50
7 … 16	**209-173**	50

2-pole; only suitable for cable ties; 1 cable outlet (rear side); max. cable tie width 3.6 mm;
3- to 4-pole; suitable for cable clamp; 1 x cable outlet (rear side);
5-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 1 x cable outlets (side); 1 cover (included);
7-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side); 2 covers (included)

Cable ties and binding tools are not offered by WAGO.



Strain relief housing dimensions (in mm):							
Pole No.	L_4 (5 mm)	L_4 (5,08 mm)	L_1	L_2	L_3	L_5	Cable Ø (max.)
2	15.5	15.5	59	55.5	58	41.5	6
3	23	23	59	55.5	58	41.5	9.5
4	30.5	30.5	59	55.5	58	41.5	9.5
5	38	38	71.5	68	70.5	54	14
7	53	53.8	71.5	68	70.5	54	14

3-pole female connector with strain relief housing

4-pole male connector with strain relief housing

Gray strain relief plates are used for light gray 721, 722 and 723 Series Male and Female Connectors equipped with CAGE CLAMP® connection.

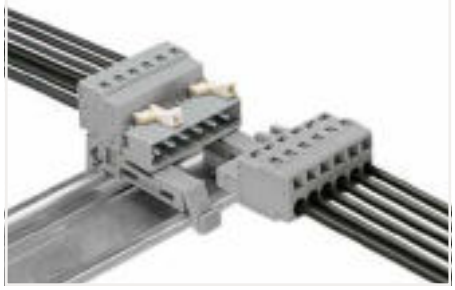
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Mounting Adapters
MCS MIDI

Mounting adapter for DIN-35 rail, for male and female connectors with snap-in mounting feet		
Color	**Item No.**	PU
gray	**209-137**	25

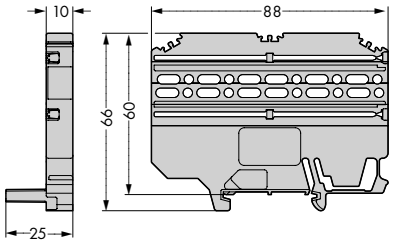
Multi mounting adapter, for DIN-35 rail, for male and female connectors with snap-in mounting feet		
Color	**Item No.**	PU
gray	**209-148**	25

Mounting adapter, for DIN-35 rail, for angled female connectors with snap-in feet for panel mounting		
Color	**Item No.**	PU (SPU)
gray	**209-120**	500(25)



Female connector with snap-in mounting feet and 209-189 Mounting Adapter on DIN-35 rail

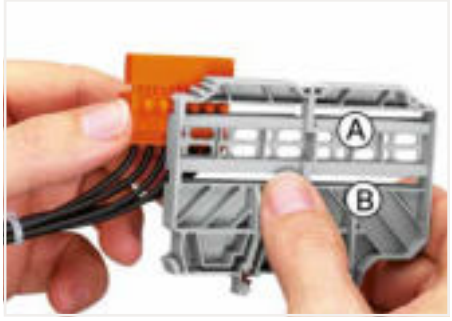
Dimensions (in mm):



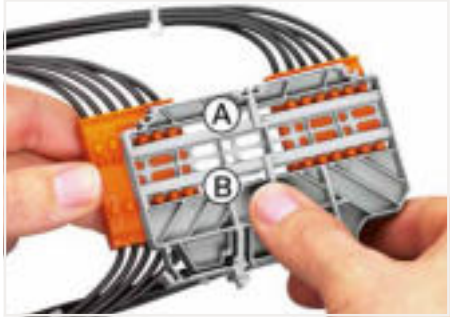
Multi mounting adapter (209-120) on DIN-35 rail and angled female connector with snap-in feet for panel mounting

The pluggable male or female connector can also be fitted with a strain relief plate.

The adapter can be marked either with WSB, Mini-WSB or WMB markers.



Both male and female connectors remain pluggable when they are mounted on the multi mounting adapter via its oblong holes or open grooves (A/B).



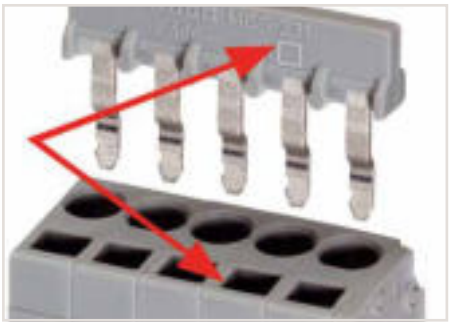
If a connector is pushed from the side into the open grooves (A/B) of the multi mounting adapter, the plug connection will be reliably protected from unintentional disconnection when mounted.

Comb-Style Jumper Bars
MCS MIDI

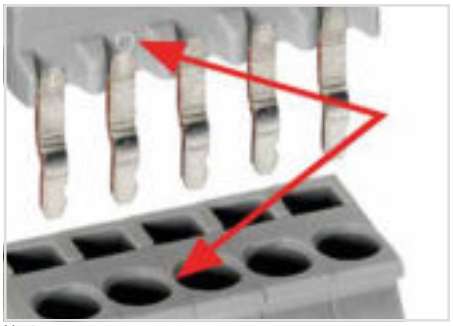
Comb-style jumper bar, for male and female connectors with CAGE CLAMP®, with CAGE CLAMP®, 5/5.08 mm pin spacing		
	Item No.	PU (SPU)
2-way	**231-902**	200 (25)
3-way	**231-903**	200 (25)
5-way	**231-905**	100 (25)
7-way	**231-907**	100 (25)
10-way	**231-910**	100 (25)

Notice:
Not suitable for female connectors equipped with Push-in CAGE CLAMP® connection and angled, panel-mount female connectors.

Comb-style jumper bar reduces maximum conductor cross-section to 1.5 mm².



Notice:
Insert jumper bar according to direction of symbols.
□ symbol correlates to the direction of the operating slot.



Notice:
Insert jumper bar according to direction of symbols.
○ symbol correlates to the direction of the conductor entry.

Custom comb-style jumper bars are created by breaking off jumper contacts (3 contacts and more).

Inserting a comb-style jumper bar via multipole operating tool – with the female or male connector being supported in a suitable holding device.

Commoning a female connector with 231-902 Comb-Style Jumper Bar via 2-pole operating tool.

Both male and female connectors can be pre-assembled with comb-style jumper bars upon request.

Notice: Comb-style jumper bars reduce the conductor cross-section to 1.5 mm² "s" + "f-st."

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Direct Marking
MCS MIDI and *MCS* MIDI Classic

The pole numbers of male and female connectors for CAGE CLAMP® termination can be marked via factory direct marking.

Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other custom marking options are available upon request.

Direct marking is not suitable for MCS PCB Male Headers. WAGO recommends pole marking on the PCB for these headers.

Female headers with solder pins are exposed to aggressive flux agents during wave soldering. Custom direct marking procedures are available upon request for these items.

The marking type is always defined by the second 4-digit block of the item no. suffix for items with standard colors and materials.
Example: 721-106/. . . . - xxxx
xxxx = Item no. suffix for direct marking

Direct marking of 1-conductor female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-106/037-047**
1-conductor female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047/ 034-000**
1-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047/ 034-000**

Direct marking of 1-conductor male connectors; perpendicular to conductor entry; pole no. … 1; item no. suffix.: /. . . - 044

Version	Item No. Example
1-conductor male connector; 6-pole; light gray	**721-606/000-044**
1-conductor male connector; with mounting flanges; 6-pole; light gray	**721-606/019-044**
1-conductor male connector; with mounting flanges and strain relief plate; 6-pole; light gray	**721-606/019-044/ 034-000**

Direct marking of 1-conductor female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
1-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-106/026-9037**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-106/037-9037**
1-conductor female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-9037/ 034-000**
1-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/037-9037/ 034-000**

Direct marking of 1-conductor male connectors; parallel to conductor entry; pole no. … 1; item no. suffix.: /. . . - 9034

Version	Item No. Example
1-conductor male connector; 5 mm pin spacing; 6-pole; light gray	**721-606/000-9034**
1-conductor male connector; with mounting flanges; 5 mm pin spacing; 6-pole; light gray	**721-606/019-9034**
1-conductor male connector; with mounting flanges and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-606/019-9034/ 034-000**

Direct Marking
MCS MIDI and *MCS* MIDI Classic

Direct marking of 1-conductor female connectors with push-buttons; perpendicular to conductor entry; 1 ... pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-047**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-047**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-047/ 134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-047/ 134-000**

Direct marking of 2-conductor female connectors; perpendicular to conductor entry; 1 ... pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
2-conductor female connector; 6-pole; light gray	**721-2106/026-047**
2-conductor female connector; with locking levers; 6-pole; light gray	**721-2106/037-047**
2-conductor female connector; with locking levers and strain relief plate; 6-pole; light gray	**721-2106/026-047/ 134-000**

Direct marking of 1-conductor angled female connectors; perpendicular to conductor entry; 1 ... pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor angled female connector; 6-pole; light gray	**722-206/026-047**
1-conductor angled female connector; with strain relief plate; 6-pole; light gray	**722-206/026-047/ 034-000**

Direct marking of 1-conductor female connectors with push-buttons; parallel to conductor entry; 1 ... pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037**
1-conductor female connector; with push-buttons and locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037/ 134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037/ 134-000**

Direct marking of 2-conductor female connectors; parallel to conductor entry; 1 ... pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
2-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-2106/026-9037**
2-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-2106/037-9037**
2-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing 6-pole; light gray	**721-2106/026-9037/ 134-000**

Direct marking of 1-conductor angled female connectors; parallel to conductor entry; 1 ... pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor angled female connector; 5 mm pin spacing; 6-pole; light gray	**722-206/026-9037**
1-conductor angled female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**722-206/026-9037/ 034-000**

8

Direct Marking
MCS MIDI and *MCS* MIDI Classic

Direct marking of 2-conductor angled female connectors for panel mounting; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor angled female connector; with flanges for panel mounting; 5 mm pin spacing; 6-pole; light gray	**721-306/031-047**
1-conductor angled female connector; for panel mounting; with snap-in mounting feet; 5 mm pin spacing; 6-pole; light gray	**721-306/008-047**

Direct marking of 3- to 5-pole; 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment;
item no. suffix.: /. . . - 042

Version	Item No. Example
1-conductor male connector; with preceding ground contact; 5 mm pin spacing; 5-pole; light gray	**721-605/000-042**

1-conductor male connectors in 3- to 5-pole versions (721 and 723 Series) are available with the following markings:

3-pole: 3 - ⏚ - 1
4-pole: 4 - ⏚ - 2 - 1
5-pole: 5 - 4 - ⏚ - 2 - 1

Direct marking of 3- to 5-pole; 1-conductor female connectors for 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 045

Version	Item No. Example
1-conductor female connector; with preceding ground contact; 5 mm pin spacing; 5-pole; light gray	**721-105/026-045**

1-conductor female connectors in 3- to 5-pole versions (721, 2721, 722 and 723 Series) for 1-conductor male connectors with preceding ground contact are available with the following markings:

3-pole: 1 - ⏚ - 3
4-pole: 1 - 2 - ⏚ - 4
5-pole: 1 - 2 - ⏚ - 4 - 5

Direct marking of 1-conductor angled female connectors for panel mounting; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
1-conductor angled female connector; with flanges for panel mounting; 5 mm pin spacing; 6-pole; light gray	**721-306/031-9037**
1-conductor angled female connector; for panel mounting; with snap-in mounting feet; 5 mm pin spacing; 6-pole; light gray	**721-306/008-9037**

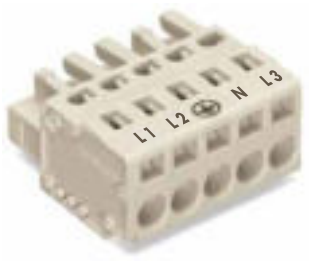
Direct marking of 3- to 5-pole; 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment;
item no. suffix.: /. . . - 041

Version	Item No. Example
1-conductor male connector; with preceding ground contact; 5 mm pin spacing; 5-pole; light gray	**721-605/000-041**

1-conductor male connectors in 3- to 5-pole versions (721 and 723 Series) are available with the following markings:

3-pole: N - ⏚ - L 1
4-pole: L 2 - ⏚ - N - L 1
5-pole: L 3 - N - ⏚ - L 2 - L 1

Pole no. … 1; item no. suffix.: /. . . - 043



Direct marking of 3- to 5-pole; 1-conductor female connectors for 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 046

Version	Item No. Example
1-conductor female connector; with preceding ground contact; 5 mm pin spacing; 5-pole; light gray	**721-105/026-046**

1-conductor female connectors in 3- to 5-pole versions (721, 2721, 722 and 723 Series) for 1-conductor male connectors with preceding ground contact are available with the following markings:

3-pole: L 1 - ⏚ - N
4-pole: L 1 - N - ⏚ - L 2
5-pole: L 1 - L 2 - ⏚ - N - L 3

1 … pole no.; item no. suffix.: /. . . - 047

Cutout Dimensions
MCS MIDI

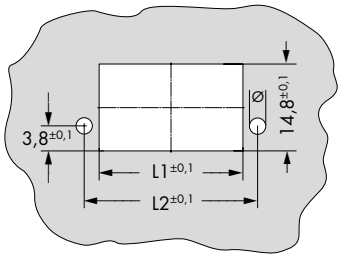
Table 1:
Cutout for 231. 721. 723 and 731 Series Male and Female Connectors with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.4	18.4	13.6	18.6	15.9	20.9	16	21
3	18.4	23.4	18.6	23.6	23.4	28.4	23.6	28.6
4	23.4	28.4	23.7	28.7	30.9	35.9	31.3	36.3
5	28.4	33.4	28.8	33.8	38.4	43.4	38.9	43.9
6	33.5	38.3	34	38.8	46	50.8	46.6	51.4
7	38.5	43.3	39.1	43.9	53.5	58.3	54.2	59
8	43.5	48.3	44.1	48.9	61	65.8	61.8	66.6
9	48.5	53.3	49.2	54	68.5	73.3	69.5	74.3
10	53.5	58.3	54.3	59.1	76	80.8	77.1	81.9
11	58.5	63.3	59.4	64.2	83.5	88.3	84.7	89.5
12	63.5	68.3	64.5	69.3	91	95.8	92.3	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.7	103.1	100.2	104.6	143.7	148.1	145.9	150.3
20	103.7	108.1	105.3	109.7	151.2	155.6	153.5	157.9
21	108.7	113.1	110.4	114.8	158.7	163.1	161.1	165.5
22	113.7	118.1	115.5	119.9	166.2	170.6	168.7	173.1
23	118.7	123.1	120.5	124.9	173.7	178.1	176.3	180.7
24	123.7	128.1	125.6	130	181.2	185.6	184	188.4

Self-tapping screws, for 1.8 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts, for 2.5 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts, for 3.0 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

Table 2:
Cutout for 2721 and 2231 Series Female Connectors with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.2	18.4	13.4	18.6	15.7	20.9	15.8	21
3	18.2	23.4	18.4	23.6	23.2	28.4	23.4	28.6
4	23.2	28.4	23.5	28.7	30.7	35.9	31.1	36.3
5	28.2	33.4	28.6	33.8	38.2	43.4	38.7	43.9
6	33.4	38.3	33.9	38.8	45.9	50.8	46.5	51.4
7	38.4	43.3	39	43.9	53.4	58.3	54.1	59
8	43.4	48.3	44	48.9	60.9	65.8	61.7	66.6
9	48.4	53.3	49.1	54	68.4	73.3	69.4	74.3
10	53.4	58.3	54.2	59.1	75.9	80.8	77	81.9
11	58.4	63.3	59.3	64.2	83.4	88.3	84.6	89.5
12	63.4	68.3	64.4	69.3	90.9	95.8	92.2	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.8	103.1	100.3	104.6	143.8	148.1	146	150.3
20	103.8	108.1	105.4	109.7	151.3	155.6	153.6	157.9
21	108.8	113.1	110.5	114.8	158.8	163.1	161.2	165.5
22	113.8	118.1	115.6	119.9	166.3	170.6	168.8	173.1
23	118.8	123.1	120.6	124.9	173.8	178.1	176.4	180.7
24	123.8	128.1	125.7	130	181.3	185.6	184.1	188.4

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

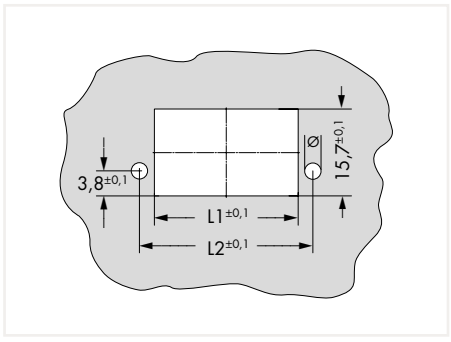
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

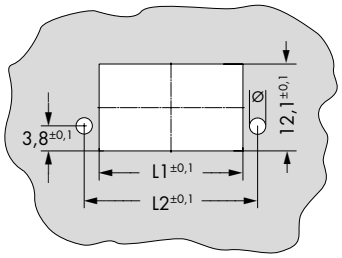
Table 3:
Cutout for 232 and 722 Series THT Female Headers with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.4	18.4	13.6	18.6	15.9	20.9	16	21
3	18.4	23.4	18.6	23.6	23.4	28.4	23.6	28.6
4	23.4	28.4	23.7	28.7	30.9	35.9	31.3	36.3
5	28.4	33.4	28.8	33.8	38.4	43.4	38.9	43.9
6	33.5	38.3	34	38.8	46	50.8	46.6	51.4
7	38.5	43.3	39.1	43.9	53.5	58.3	54.2	59
8	43.5	48.3	44.1	48.9	61	65.8	61.8	66.6
9	48.5	53.3	49.2	54	68.5	73.3	69.5	74.3
10	53.5	58.3	54.3	59.1	76	80.8	77.1	81.9
11	58.5	63.3	59.4	64.2	83.5	88.3	84.7	89.5
12	63.5	68.3	64.5	69.3	91	95.8	92.3	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.7	103.1	100.2	104.6	143.7	148.1	145.9	150.3
20	103.7	108.1	105.3	109.7	151.2	155.6	153.5	157.9
21	108.7	113.1	110.4	114.8	158.7	163.1	161.1	165.5
22	113.7	118.1	115.5	119.9	166.2	170.6	168.7	173.1
23	118.7	123.1	120.5	124.9	173.7	178.1	176.3	180.7
24	123.7	128.1	125.6	130	181.2	185.6	184	188.4

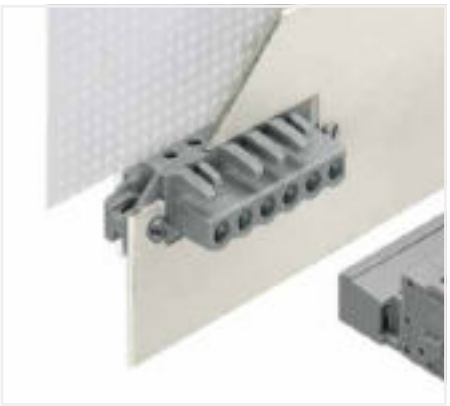
Self-tapping screws, for 1.8 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
B 2.2 x 9,5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts, for 2.5 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts, for 3.0 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

Table 4:
Cutout for 231 Series THT Male Headers with Mounting Flanges

	Pin Spacing 5 mm			Pin Spacing 7,5 mm		
Pole No.	L1	L2	L3	L1	L2	L3
2	13.6	8.9	9.5	16.1	10.6	10.8
3	18.6	11.4	12	23.6	14.3	14.5
4	23.6	13.9	14.5	31.1	18.1	18.3
5	28.6	16.4	17	38.6	21.8	22
6	33.8	19	19.6	46.3	25.7	25.9
7	38.8	21.5	22.1	53.8	29.4	29.6
8	43.8	24	24.6	61.3	33.2	33.4
9	48.8	26.5	27.1	68.8	36.9	37.1
10	53.8	29	29.6	76.3	40.7	40.9
11	58.8	31.5	32.1	83.8	44.4	44.6
12	63.8	34	34.6	91.3	48.2	48.4
13	69	36.6	37.2	99	52	52.2
14	74	39.1	39.7	106.5	55.8	56
15	79	41.6	42.2	114	59.5	59.7
16	84	44.1	44.7	121.5	63.3	63.5
17	89	46.6	47.2	129	67	67.2
18	94	49.1	49.7	136.5	70.8	71
19	99.2	51.7	52.3	144.2	74.6	74.8
20	104.2	54.2	54.8	151.7	78.4	78.6
21	109.2	56.7	57.3	159.2	82.1	82.3
22	114.2	59.2	59.8	166.7	85.9	86.1
23	119.2	61.7	62.3	174.2	89.6	89.8
24	124.2	64.2	64.8	181.7	93.4	93.6

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

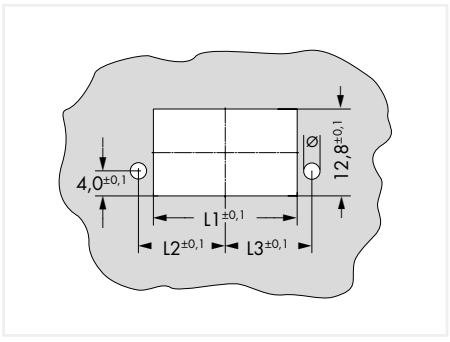
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

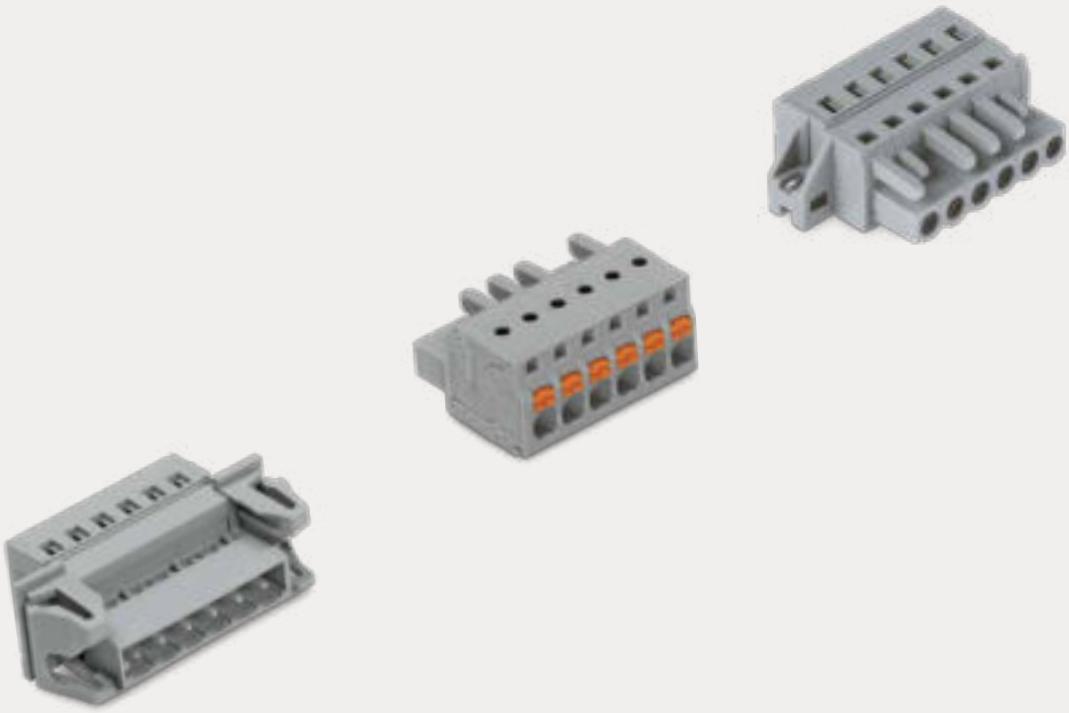
Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).

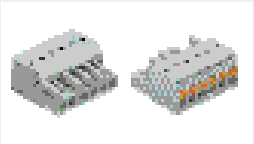
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.



WAGO *MULTI CONNECTION SYSTEM*
MIDI Classic

WAGO *MULTI CONNECTION SYSTEM* MIDI Classic
Pin Spacing: 5/5.08 mm, 7.5/7.62 mm ▸ 2.5 mm²

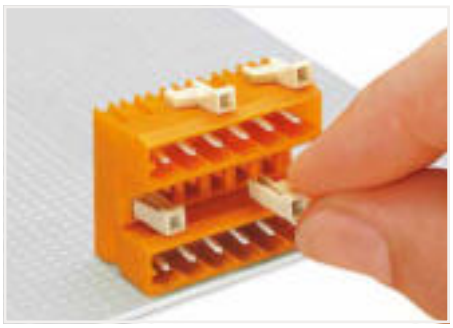
		Nominal Cross-Section	Page
	MCS MIDI Classic 1-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	5 mm 5.08 mm 7.5 mm 7.62 mm	560 614 652 696
	MCS MIDI Classic 2-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	5 mm 5.08 mm 7.5 mm 7.62 mm	570 622 662 702
	*MCS* MIDI Classic 1-Conductor Female Connectors ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	5 mm 5.08 mm 7.5 mm 7.62 mm	572 626 664 704
	MCS MIDI Classic 1-Conductor Male Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	5 mm 5.08 mm 7.5 mm 7.62 mm	576 630 668 708
	MCS MIDI Classic THT Female Headers	5 mm 5.08 mm 7.5 mm 7.62 mm	580 634 672 712
	MCS MIDI Classic THT Male Headers	5 mm 5.08 mm 7.5 mm 7.62 mm	586 640 666 718
	MCS MIDI THR Male Headers	5 mm 7.5 mm	598 686
	MCS MIDI Classic Female Connectors for Rail-Mount Terminal Blocks Male Connectors for Rail-Mount Terminal Blocks	5 mm 5 mm	608 612
	MCS MIDI Accessories Accessories and Tools		724 861
	Application Examples		742

9

PUSH-IN CAGE CLAMP®

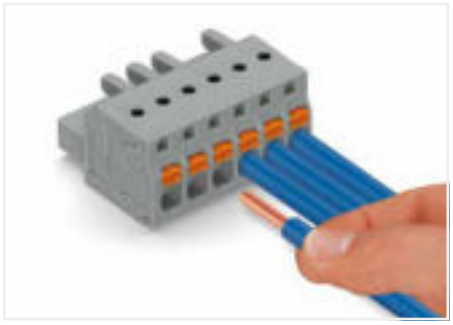
MCS MIDI Classic
Description and Installation

Coding a male header – fitting coding key(s).

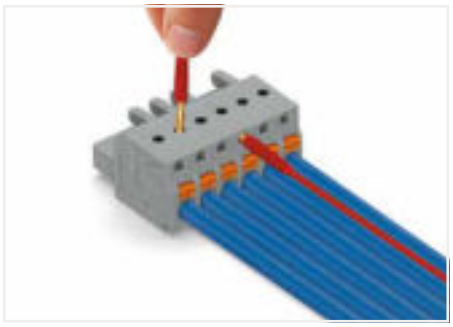


Coding a lower male header – inserting coding key(s).

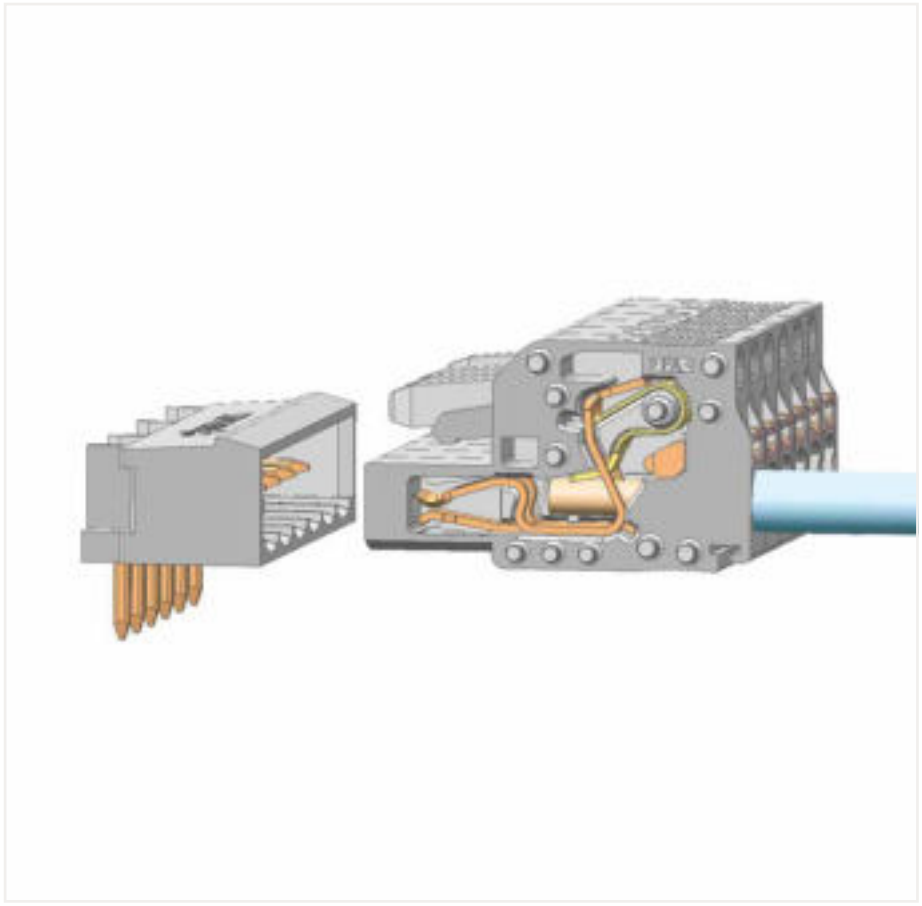
Coding a female connector – removing coding finger(s).



Push-in termination of solid conductors or fine-stranded conductors with ferrule



Testing parallel to conductor entry via integrated test ports – female connector with push-buttons and Push-in CAGE CLAMP® connection – touch contact perpendicular to conductor entry.



Pin spacing: 5/5.08 mm and 7.5/7.62 mm, Push-in CAGE CLAMP®

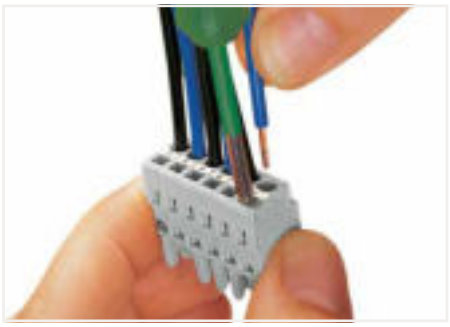
Inserting fine-stranded conductors into Push-in CAGE CLAMP® unit via push-buttons.

THR male headers in tape-and-reel packaging for SMT applications

Labeling via direct marking or self-adhesive strips.

CAGE CLAMP®

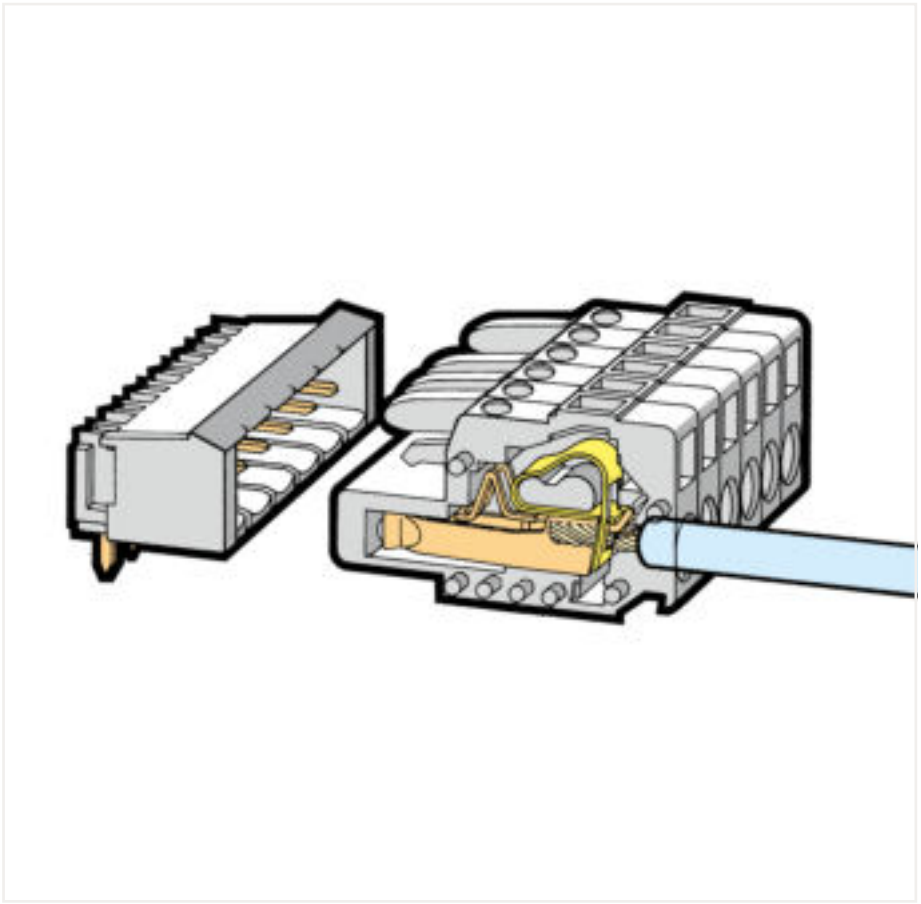
MCS MIDI Classic
Description and Installation



Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.

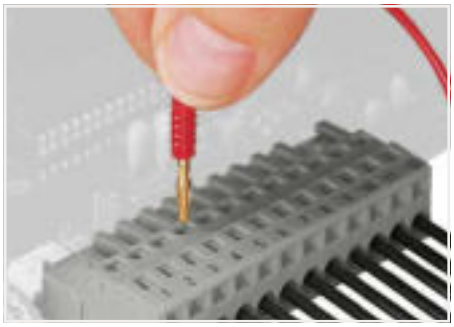
Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.

Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).

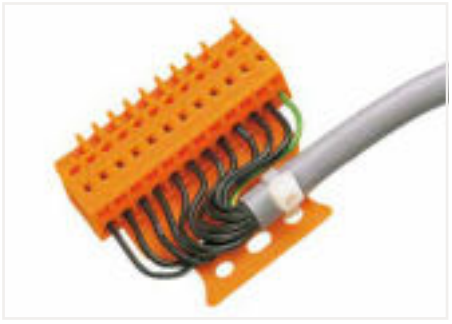


Pin spacing: 5/5.08 mm and 7.5/7.62 mm, CAGE CLAMP®

Inserting a conductor into CAGE CLAMP® unit via operating tool (210-250).



Testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug – female connector with CAGE CLAMP®.



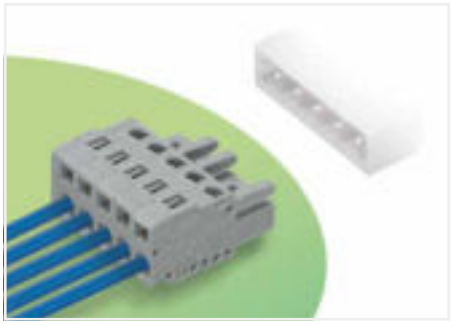
Male connector with strain relief plate

Strain relief housing shown with a male connector equipped with CAGE CLAMP®

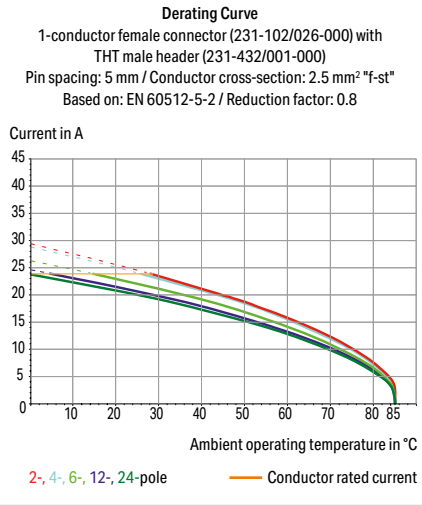
Insulation stop – prevents conductor insulation from being inserted into CAGE CLAMP® and Push-in CAGE CLAMP® units.

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 730
Test and measurement	Page 725, 886
Tool	Page 538
Cutout dimensions	Page 738
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

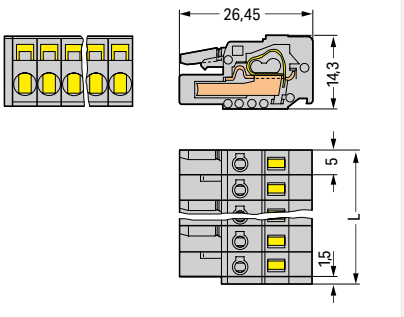
Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Plugging without loss of pin spacing

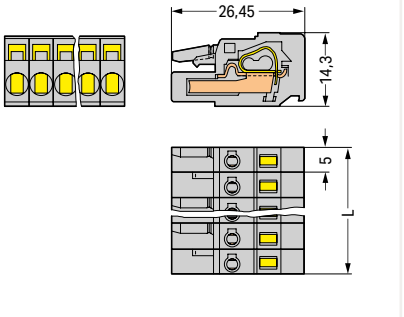
231-106/102-000

Pole No.	Item No.	PU
2	231-102/026-000	100
3	231-103/026-000	100
4	231-104/026-000	100
5	231-105/026-000	100
6	231-106/026-000	50
7	231-107/026-000	50
8	231-108/026-000	50
9	231-109/026-000	50
10	231-110/026-000	50
11	231-111/026-000	25
12	231-112/026-000	25
13	231-113/026-000	25
14	231-114/026-000	25
15	231-115/026-000	25
16	231-116/026-000	25
17	231-117/026-000	25
18	231-118/026-000	25
19	231-119/026-000	10
20	231-120/026-000	10
21	231-121/026-000	10
22	231-122/026-000	10
23	231-123/026-000	10
24	231-124/026-000	10

Pole No.	Item No.	PU
2	231-102/102-000	100
3	231-103/102-000	100
4	231-104/102-000	100
5	231-105/102-000	100
6	231-106/102-000	50
7	231-107/102-000	50
8	231-108/102-000	50
9	231-109/102-000	50
10	231-110/102-000	50
11	231-111/102-000	25
12	231-112/102-000	25
13	231-113/102-000	25
14	231-114/102-000	25
15	231-115/102-000	25
16	231-116/102-000	25
17	231-117/102-000	25
18	231-118/102-000	25
19	231-119/102-000	10
21	231-121/102-000	10
22	231-122/102-000	10
23	231-123/102-000	10
24	231-124/102-000	10

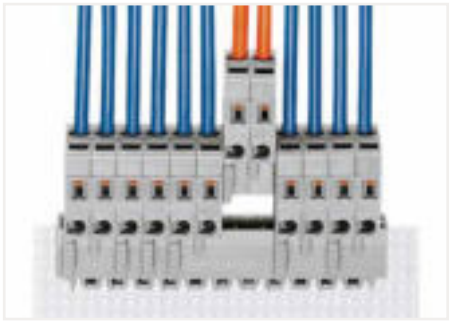


L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

Total pole number for female connectors
= pole number for male header



Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to "pole no. x pin spacing"!

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

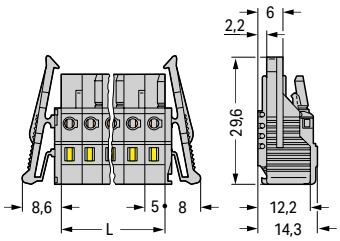
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Locking of plug-in connection: Locking lever

231-106/031-000

Pole No.	Item No.	PU
2	231-102/037-000	100
3	231-103/037-000	50
4	231-104/037-000	50
5	231-105/037-000	50
6	231-106/037-000	50
7	231-107/037-000	50
8	231-108/037-000	25
9	231-109/037-000	25
10	231-110/037-000	25
11	231-111/037-000	25
12	231-112/037-000	25
13	231-113/037-000	25
14	231-114/037-000	25
15	231-115/037-000	25
16	231-116/037-000	10
17	231-117/037-000	10
18	231-118/037-000	10
19	231-119/037-000	10
20	231-120/037-000	10
21	231-121/037-000	10
22	231-122/037-000	10
23	231-123/037-000	10
24	231-124/037-000	10

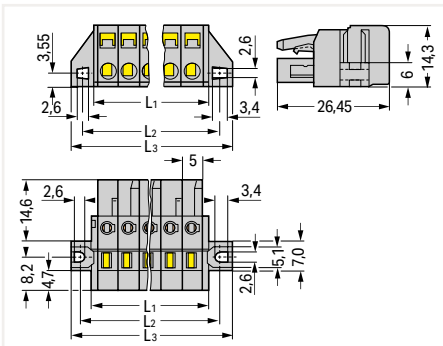


L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

231-106/031-000

Pole No.	Item No.	PU
2	231-102/031-000	100
3	231-103/031-000	50
4	231-104/031-000	50
5	231-105/031-000	50
6	231-106/031-000	50
7	231-107/031-000	50
8	231-108/031-000	50
9	231-109/031-000	25
10	231-110/031-000	25
11	231-111/031-000	25
12	231-112/031-000	25
13	231-113/031-000	25
14	231-114/031-000	25
15	231-115/031-000	25
16	231-116/031-000	10
17	231-117/031-000	10
18	231-118/031-000	10
19	231-119/031-000	10
20	231-120/031-000	10
21	231-121/031-000	10
22	231-122/031-000	10
23	231-123/031-000	10
24	231-124/031-000	10



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2- to 3-pole female connectors – one latch only

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strips

231-106/027-000

Pole No.	Item No.	PU
6	231-106/027-000	50
7	231-107/027-000	50
8	231-108/027-000	50
9	231-109/027-000	25
10	231-110/027-000	25
11	231-111/027-000	25
12	231-112/027-000	25
13	231-113/027-000	25
14	231-114/027-000	25
15	231-115/027-000	25
16	231-116/027-000	10
17	231-117/027-000	10
18	231-118/027-000	10
19	231-119/027-000	10
20	231-120/027-000	10
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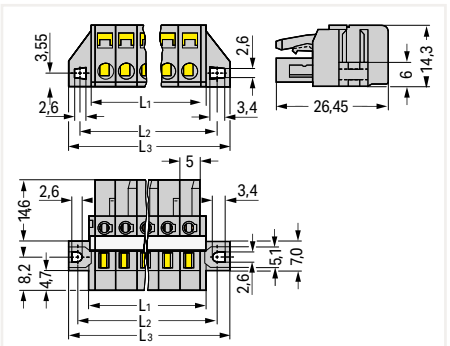
22	231-122/027-000	10
23	231-123/027-000	10
24	231-124/027-000	10



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

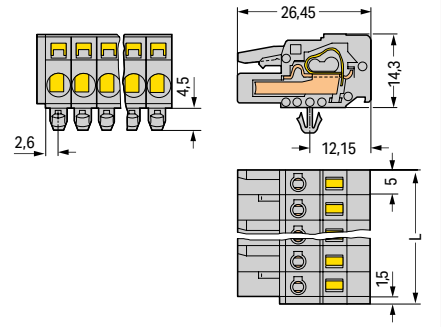
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

231-106/008-000

Pole No.	Item No.	PU
2	231-102/008-000	100
3	231-103/008-000	100
4	231-104/008-000	100
5	231-105/008-000	100
6	231-106/008-000	50
7	231-107/008-000	25
8	231-108/008-000	50
9	231-109/008-000	50
10	231-110/008-000	50
11	231-111/008-000	25
12	231-112/008-000	25
13	231-113/008-000	25
14	231-114/008-000	25
15	231-115/008-000	25
16	231-116/008-000	25
17	231-117/008-000	25
18	231-118/008-000	25
19	231-119/008-000	10
20	231-120/008-000	10
21	231-121/008-000	10
22	231-122/008-000	10
23	231-123/008-000	10
24	231-124/008-000	10



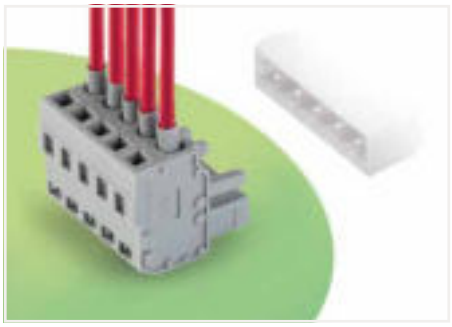
L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

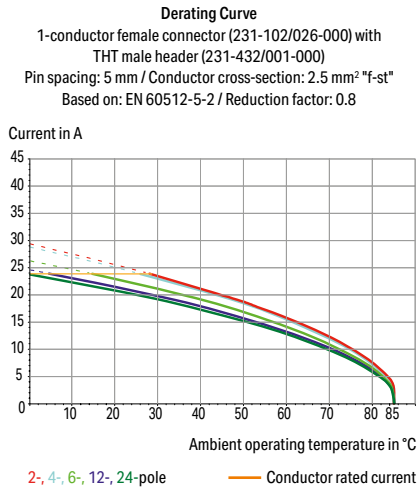
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Strain relief	Page 730
Test and measurement	Page 725, 886
Tool	Page 538
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

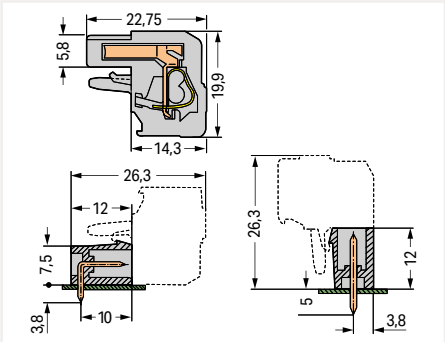
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: gray

Conductor entry direction to mating direction: 90 °

232-206/026-000

Pole No.	Item No.	PU
2	232-202/026-000	100
3	232-203/026-000	100
4	232-204/026-000	100
5	232-205/026-000	100
6	232-206/026-000	50
7	232-207/026-000	50
8	232-208/026-000	50
9	232-209/026-000	50
10	232-210/026-000	50
11	232-211/026-000	25
12	232-212/026-000	25
13	232-213/026-000	25
14	232-214/026-000	25
15	232-215/026-000	25
16	232-216/026-000	25
17	232-217/026-000	25
18	232-218/026-000	25
19	232-219/026-000	10
20	232-220/026-000	10
21	232-221/026-000	10
22	232-222/026-000	10
23	232-223/026-000	10
24	232-224/026-000	10

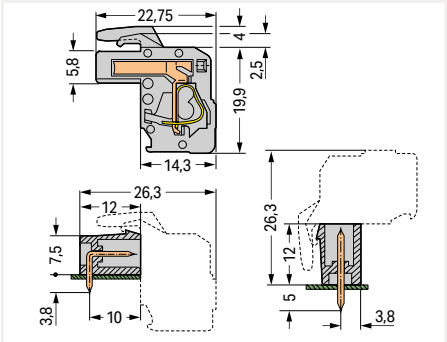


L = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

Conductor entry direction to mating direction: 270 °

232-106/026-000

Pole No.	Item No.	PU
2	232-102/026-000	100
3	232-103/026-000	100
4	232-104/026-000	100
5	232-105/026-000	100
6	232-106/026-000	50
7	232-107/026-000	50
8	232-108/026-000	50
9	232-109/026-000	50
10	232-110/026-000	50
11	232-111/026-000	25
12	232-112/026-000	25
13	232-113/026-000	25
14	232-114/026-000	25
15	232-115/026-000	25
16	232-116/026-000	25
17	232-117/026-000	25
18	232-118/026-000	25
19	232-119/026-000	10
20	232-120/026-000	10
21	232-121/026-000	10
22	232-122/026-000	10
23	232-123/026-000	10
24	232-124/026-000	10



L = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

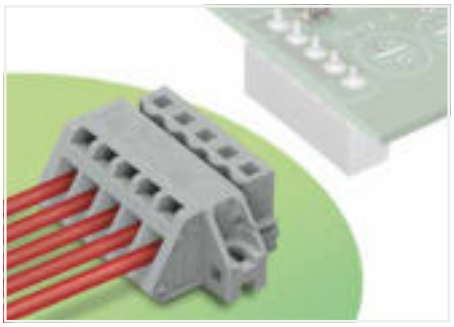
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

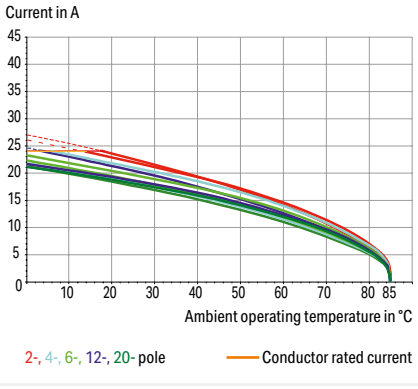
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90 ° ▸ Color: gray



- Universal connection for all conductor types
- Available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-35 rail mounted
- Easy conductor termination, even when halves are mated

Derating Curve
1-conductor female connector (731-502/031-000) with THT male header (231-132/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	7 … 8 mm / 0.28 … 0.31 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
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Marking	Page 865
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Strain relief	Page 730
Test and measurement	Page 725
Tool	Page 538, 870
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90 ° ▸ Color: gray

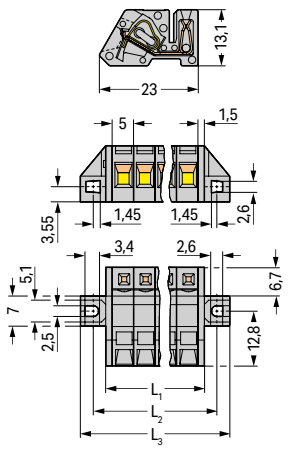
Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

731-505/031-000

Angled female connector –
a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.

Angled female connector –
used as through-panel connector; termination ports and operating slots are located outside the housing – panel thickness up to 2 mm.

Pole No.	Item No.	PU
2	731-502/031-000	100
3	731-503/031-000	50
4	731-504/031-000	50
5	731-505/031-000	50
6	731-506/031-000	50
7	731-507/031-000	50
8	731-508/031-000	50
9	731-509/031-000	25
10	731-510/031-000	25
11	731-511/031-000	25
12	731-512/031-000	25
13	731-513/031-000	25
14	731-514/031-000	25
15	731-515/031-000	25
16	731-516/031-000	10
17	731-517/031-000	10
18	731-518/031-000	10
19	731-519/031-000	10
20	731-520/031-000	10



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ *MCS* MIDI Classic ▶ 731 Series

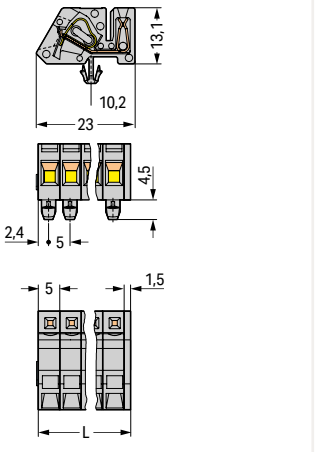
Pin spacing: 5 mm / 0.197 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot

731-505/008-000

Angled female connector with DIN-35 rail-mount adapter (209-120)

Pole No.	Item No.	PU
2	731-502/008-000	100
3	731-503/008-000	50
4	731-504/008-000	50
5	731-505/008-000	50
6	731-506/008-000	50
7	731-507/008-000	50
8	731-508/008-000	50
9	731-509/008-000	50
10	731-510/008-000	50
11	731-511/008-000	25
12	731-512/008-000	25
13	731-513/008-000	25
14	731-514/008-000	25
15	731-515/008-000	25
16	731-516/008-000	25
17	731-517/008-000	25
18	731-518/008-000	25
19	731-519/008-000	10
20	731-520/008-000	10



L = (pole no. x pin spacing) + 1.5 mm

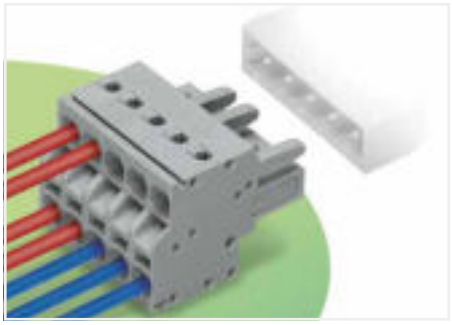
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

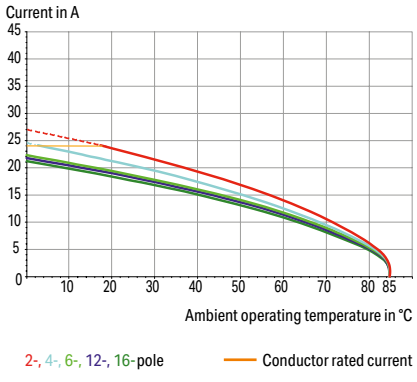
2-conductor female connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

Derating Curve
2-conductor female connector (231-2102/026-000) with THT male header (231-132/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 729
Test and measurement	Page 725
Tool	Page 725, 870
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

2-conductor female connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

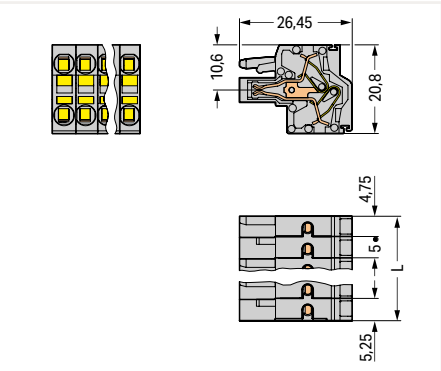
Locking of plug-in connection: Locking lever

231-2106/026-000

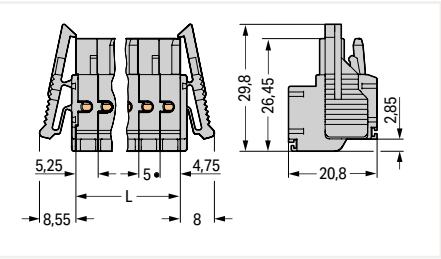
231-2106/037-000

Pole No.	Item No.	PU
2	231-2102/026-000	100
3	231-2103/026-000	100
4	231-2104/026-000	100
5	231-2105/026-000	50
6	231-2106/026-000	50
7	231-2107/026-000	50
8	231-2108/026-000	50
9	231-2109/026-000	50
10	231-2110/026-000	50
11	231-2111/026-000	25
12	231-2112/026-000	25
13	231-2113/026-000	25
14	231-2114/026-000	25
15	231-2115/026-000	25
16	231-2116/026-000	25

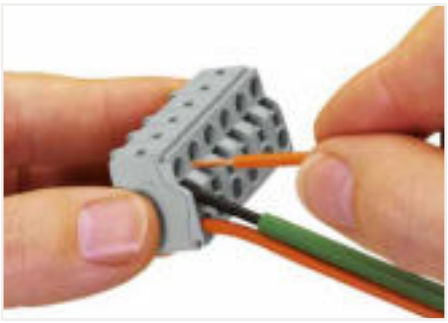
Pole No.	Item No.	PU
2	231-2102/037-000	100
3	231-2103/037-000	50
4	231-2104/037-000	50
5	231-2105/037-000	50
6	231-2106/037-000	50
7	231-2107/037-000	50
8	231-2108/037-000	25
9	231-2109/037-000	25
10	231-2110/037-000	25
11	231-2111/037-000	25
12	231-2112/037-000	25
13	231-2113/037-000	25
14	231-2114/037-000	25
15	231-2115/037-000	25
16	231-2116/037-000	10



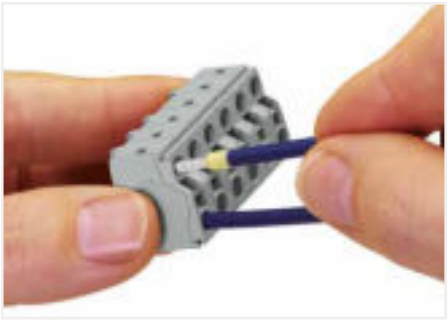
L = (pole no. – 2) x pin spacing + 10 mm



L = (pole no. – 2) x pin spacing + 10 mm



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

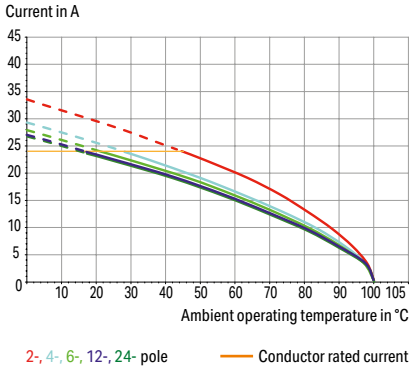
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- Coding option available

Derating Curve
1-conductor female connector (2231-102/026-000) with THT male header (231-162/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 729
Test and measurement	Page 725, 886
Tool	Page 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

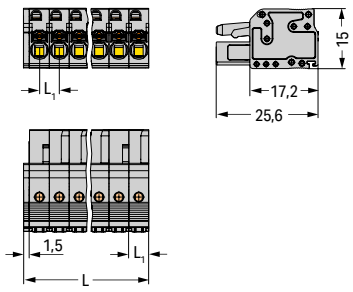
Plugging without loss of pin spacing

2231-106/026-000

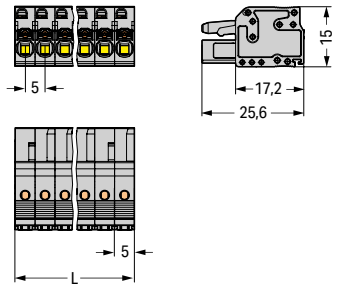
2231-106/102-000

Pole No.	Item No.	PU
2	2231-102/026-000	100
3	2231-103/026-000	100
4	2231-104/026-000	100
5	2231-105/026-000	100
6	2231-106/026-000	50
7	2231-107/026-000	50
8	2231-108/026-000	50
9	2231-109/026-000	50
10	2231-110/026-000	50
11	2231-111/026-000	25
12	2231-112/026-000	25
13	2231-113/026-000	25
14	2231-114/026-000	25
15	2231-115/026-000	25
16	2231-116/026-000	25
17	2231-117/026-000	25
18	2231-118/026-000	25
19	2231-119/026-000	10
20	2231-120/026-000	10
21	2231-121/026-000	10
22	2231-122/026-000	10
23	2231-123/026-000	10
24	2231-124/026-000	10

Pole No.	Item No.	PU
2	2231-102/102-000	100
3	2231-103/102-000	100
4	2231-104/102-000	100
5	2231-105/102-000	100
6	2231-106/102-000	50
7	2231-107/102-000	50
8	2231-108/102-000	50
9	2231-109/102-000	50
10	2231-110/102-000	50
11	2231-111/102-000	25
12	2231-112/102-000	25
13	2231-113/102-000	25
14	2231-114/102-000	25
15	2231-115/102-000	25
16	2231-116/102-000	25
17	2231-117/102-000	25
18	2231-118/102-000	25
19	2231-119/102-000	10
20	2231-120/102-000	10
21	2231-121/102-000	10
22	2231-122/102-000	10
23	2231-123/102-000	10
24	2231-124/102-000	10

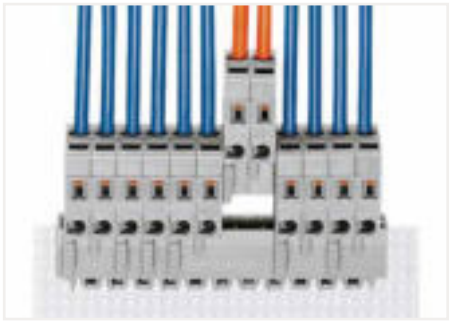


L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

Total pole number for female connectors
= pole number for male header



Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to "pole no. x pin spacing"!

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

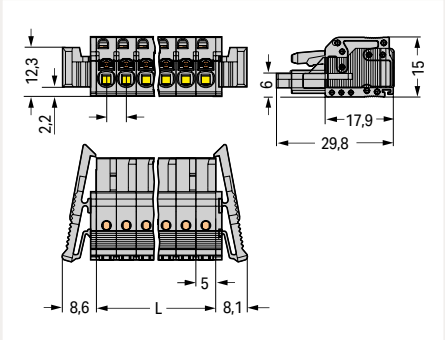
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Locking of plug-in connection: Locking lever

2231-106/037-000

Pole No.	Item No.	PU
2	2231-102/037-000	100
3	2231-103/037-000	50
4	2231-104/037-000	50
5	2231-105/037-000	50
6	2231-106/037-000	50
7	2231-107/037-000	50
8	2231-108/037-000	25
9	2231-109/037-000	25
10	2231-110/037-000	25
11	2231-111/037-000	25
12	2231-112/037-000	25
13	2231-113/037-000	25
14	2231-114/037-000	25
15	2231-115/037-000	25
16	2231-116/037-000	10
17	2231-117/037-000	10
18	2231-118/037-000	10
19	2231-119/037-000	10
20	2231-120/037-000	10
21	2231-121/037-000	10
22	2231-122/037-000	10
23	2231-123/037-000	10
24	2231-124/037-000	10

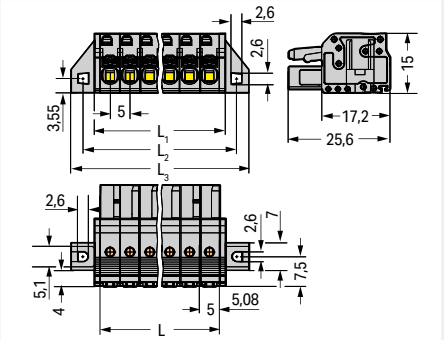


L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

2231-106/031-000

Pole No.	Item No.	PU
2	2231-102/031-000	100
3	2231-103/031-000	50
4	2231-104/031-000	50
5	2231-105/031-000	50
6	2231-106/031-000	50
7	2231-107/031-000	50
8	2231-108/031-000	50
9	2231-109/031-000	25
10	2231-110/031-000	25
11	2231-111/031-000	25
12	2231-112/031-000	25
13	2231-113/031-000	25
14	2231-114/031-000	25
15	2231-115/031-000	25
16	2231-116/031-000	10
17	2231-117/031-000	10
18	2231-118/031-000	10
19	2231-119/031-000	10
20	2231-120/031-000	10
21	2231-121/031-000	10
22	2231-122/031-000	10
23	2231-123/031-000	10
24	2231-124/031-000	10

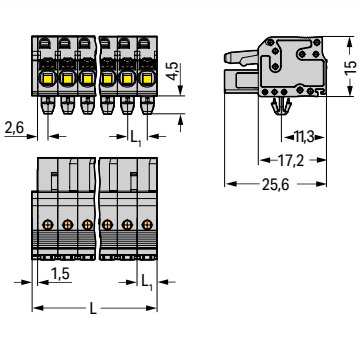


L = pole no. x pin spacing
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

2231-106/008-000

Pole No.	Item No.	PU
2	2231-102/008-000	100
3	2231-103/008-000	100
4	2231-104/008-000	100
5	2231-105/008-000	100
6	2231-106/008-000	50
7	2231-107/008-000	25
8	2231-108/008-000	50
9	2231-109/008-000	50
10	2231-110/008-000	50
11	2231-111/008-000	25
12	2231-112/008-000	25
13	2231-113/008-000	25
14	2231-114/008-000	25
15	2231-115/008-000	25
16	2231-116/008-000	25
17	2231-117/008-000	25
18	2231-118/008-000	25
19	2231-119/008-000	10
20	2231-120/008-000	10
21	2231-121/008-000	10
22	2231-122/008-000	10
23	2231-123/008-000	10
24	2231-124/008-000	10



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2- to 3-pole female connectors – one latch only

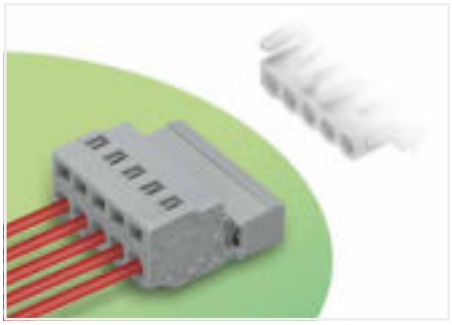
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

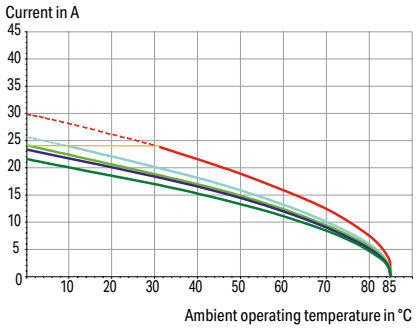
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers



The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 730
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

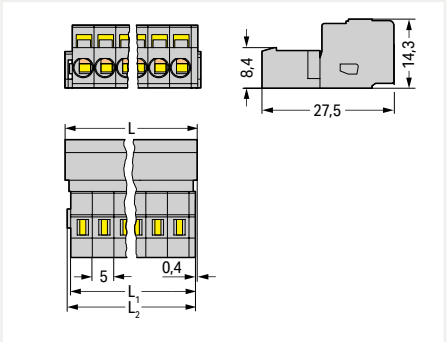
	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

231-606

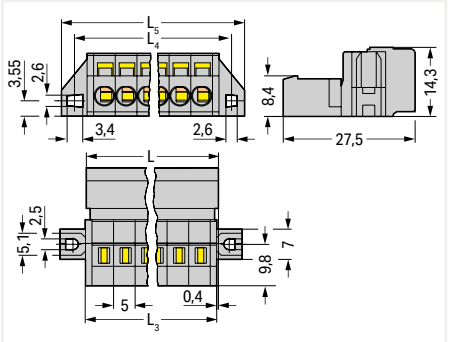
231-606/019-000

Pole No.	Item No.	PU
2	231-602	100
3	231-603	100
4	231-604	100
5	231-605	50
6	231-606	50
7	231-607	50
8	231-608	50
9	231-609	50
10	231-610	50
11	231-611	25
12	231-612	25
13	231-613	25
14	231-614	25
15	231-615	25
16	231-616	25
17	231-617	25
18	231-618	25
19	231-619	10
20	231-620	10
21	231-621	10
22	231-622	10
23	231-623	10
24	231-624	10

Pole No.	Item No.	PU
2	231-602/019-000	100
3	231-603/019-000	50
4	231-604/019-000	50
5	231-605/019-000	50
6	231-606/019-000	50
7	231-607/019-000	50
8	231-608/019-000	50
9	231-609/019-000	25
10	231-610/019-000	25
11	231-611/019-000	25
12	231-612/019-000	25
13	231-613/019-000	25
14	231-614/019-000	25
15	231-615/019-000	25
16	231-616/019-000	10
17	231-617/019-000	10
18	231-618/019-000	10
19	231-619/019-000	10
20	231-620/019-000	10
21	231-621/019-000	10
22	231-622/019-000	10
23	231-623/019-000	10
24	231-624/019-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L3 + 5.8 mm
L_5 = L3 + 11.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 231 Series

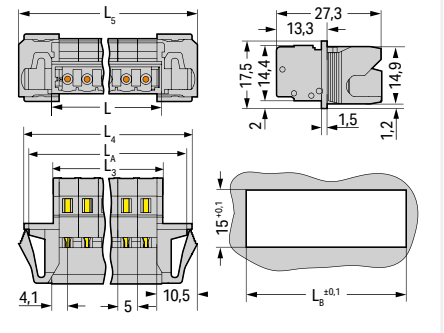
Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Mounting type: Feed-through mounting ▸ Mounting type: Snap-in

231-606/114-000

Male connector, with snap-in flanges, for feedthrough applications, for 0.5 … 2.5 mm plate thickness

Pole No.	Item No.	PU
2	231-602/114-000	50
3	231-603/114-000	50
4	231-604/114-000	50
5	231-605/114-000	50
6	231-606/114-000	50
7	231-607/114-000	25
8	231-608/114-000	25
9	231-609/114-000	25
10	231-610/114-000	25
11	231-611/114-000	25
12	231-612/114-000	25
13	231-613/114-000	25
14	231-614/114-000	25
15	231-615/114-000	10
16	231-616/114-000	10
17	231-617/114-000	10
18	231-618/114-000	10
19	231-619/114-000	10
20	231-620/114-000	10
21	231-621/114-000	10
22	231-622/114-000	10
23	231-623/114-000	10
24	231-624/114-000	10



L = (pole no. x pin spacing) + 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

231-606/018-000

Pole No.	Item No.	PU
2	231-602/018-000	100
3	231-603/018-000	100
4	231-604/018-000	100
5	231-605/018-000	50
6	231-606/018-000	50
7	231-607/018-000	50
8	231-608/018-000	50
9	231-609/018-000	50
10	231-610/018-000	50
11	231-611/018-000	25
12	231-612/018-000	25
13	231-613/018-000	25
14	231-614/018-000	25
15	231-615/018-000	25
16	231-616/018-000	25
17	231-617/018-000	25
18	231-618/018-000	25
19	231-619/018-000	10
20	231-620/018-000	10
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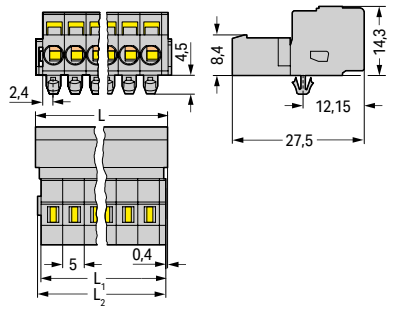
22	231-622/018-000	10
23	231-623/018-000	10
24	231-624/018-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

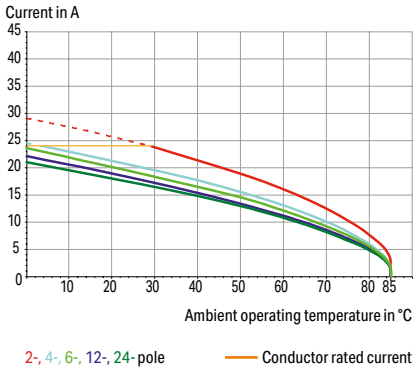
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

Derating Curve
THT female header (232-232) with
1-conductor male connector (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 869
Test and measurement	Page 725, 886
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

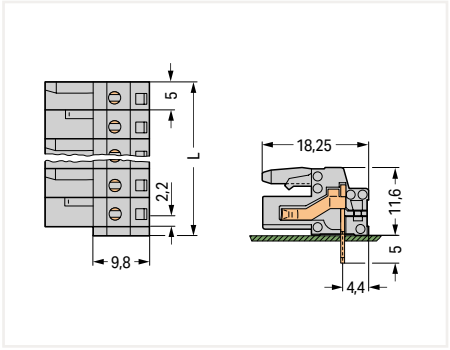
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Mating direction to the PCB: 0 °

232-136

Pole No.	Item No.	PU
2	232-232	200
3	232-233	100
4	232-234	100
5	232-235	100
6	232-236	50
7	232-237	50
8	232-238	50
9	232-239	50
10	232-240	50
11	232-241	25
12	232-242	25
13	232-243	25
14	232-244	25
15	232-245	25
16	232-246	25
17	232-247	25
18	232-248	25
19	232-249	10
20	232-250	10
21	232-251	10
22	232-252	10
23	232-253	10
24	232-254	10

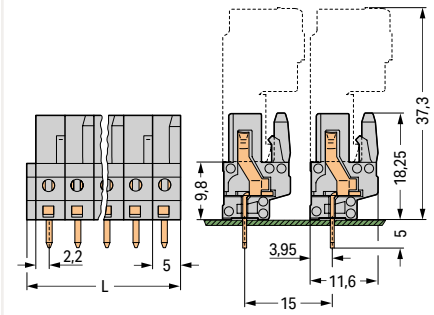


L = (pole no. x pin spacing) + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-136

Pole No.	Item No.	PU
2	232-132	100
3	232-133	100
4	232-134	100
5	232-135	100
6	232-136	50
7	232-137	50
8	232-138	50
9	232-139	50
10	232-140	50
11	232-141	25
12	232-142	25
13	232-143	25
14	232-144	25
15	232-145	25
16	232-146	25
17	232-147	25
18	232-148	25
19	232-149	10
20	232-150	10
21	232-151	10
22	232-152	10
23	232-153	10
24	232-154	10

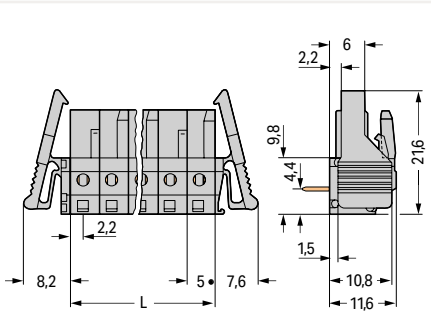


L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

232-236/039-000

Pole No.	Item No.	PU
2	232-232/039-000	100
3	232-233/039-000	50
4	232-234/039-000	50
5	232-235/039-000	50
6	232-236/039-000	50
7	232-237/039-000	50
8	232-238/039-000	50
9	232-239/039-000	25
10	232-240/039-000	25
11	232-241/039-000	25
12	232-242/039-000	25
13	232-243/039-000	25
14	232-244/039-000	25
15	232-245/039-000	25
16	232-246/039-000	10
17	232-247/039-000	10
18	232-248/039-000	10
19	232-249/039-000	10
20	232-250/039-000	10
21	232-251/039-000	10
22	232-252/039-000	10
23	232-253/039-000	10
24	232-254/039-000	10



L = pole no. x pin spacing
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

232-136/039-000

Pole No.	Item No.	PU
2	232-132/039-000	100
3	232-133/039-000	50
4	232-134/039-000	50
5	232-135/039-000	50
6	232-136/039-000	50
7	232-137/039-000	50
8	232-138/039-000	50
9	232-139/039-000	25
10	232-140/039-000	25
11	232-141/039-000	25
12	232-142/039-000	25
13	232-143/039-000	25
14	232-144/039-000	25
15	232-145/039-000	25
16	232-146/039-000	10
17	232-147/039-000	10
18	232-148/039-000	10
19	232-149/039-000	10
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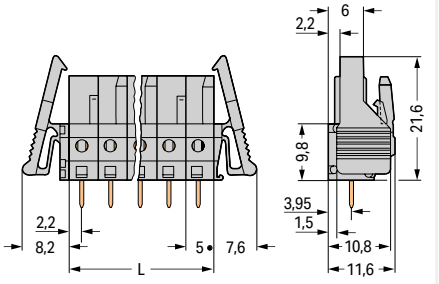
23	232-153/039-000	10



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

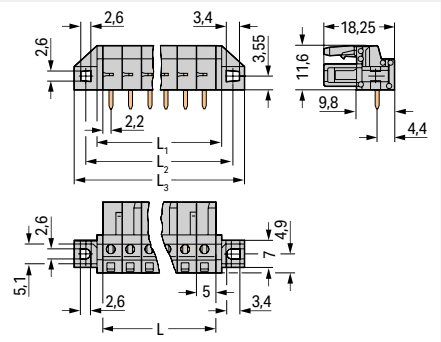
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

232-236/031-000

Pole No.	Item No.	PU
2	232-232/031-000	100
3	232-233/031-000	50
4	232-234/031-000	50
5	232-235/031-000	50
6	232-236/031-000	50
7	232-237/031-000	50
8	232-238/031-000	50
9	232-239/031-000	25
10	232-240/031-000	25
11	232-241/031-000	25
12	232-242/031-000	25
13	232-243/031-000	25
14	232-244/031-000	25
15	232-245/031-000	25
16	232-246/031-000	10
17	232-247/031-000	10
18	232-248/031-000	10
19	232-249/031-000	10
20	232-250/031-000	10
21	232-251/031-000	10
22	232-252/031-000	10
23	232-253/031-000	10
24	232-254/031-000	10

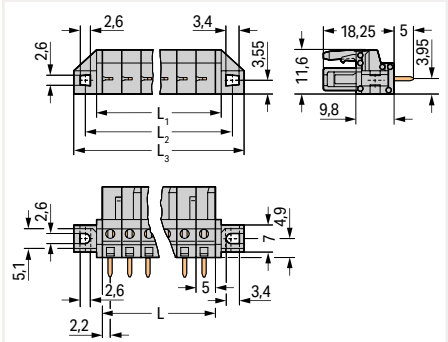


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-136/031-000

Pole No.	Item No.	PU
2	232-132/031-000	100
3	232-133/031-000	50
4	232-134/031-000	50
5	232-135/031-000	50
6	232-136/031-000	50
7	232-137/031-000	50
8	232-138/031-000	50
9	232-139/031-000	25
10	232-140/031-000	25
11	232-141/031-000	25
12	232-142/031-000	25
13	232-143/031-000	25
14	232-144/031-000	25
15	232-145/031-000	25
16	232-146/031-000	10
17	232-147/031-000	10
18	232-148/031-000	10
19	232-149/031-000	10
20	232-150/031-000	10
21	232-151/031-000	10
22	232-152/031-000	10
23	232-153/031-000	10
24	232-154/031-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

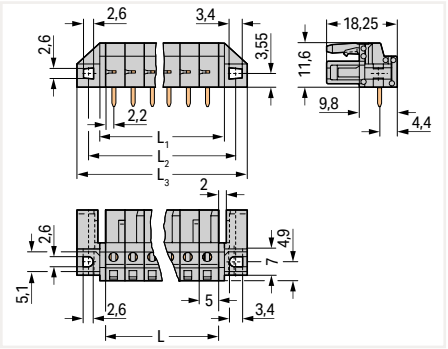
Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Mounting type: Flush feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

232-236/047-000

Pole No.	Item No.	PU
2	232-232/047-000	100
3	232-233/047-000	50
4	232-234/047-000	50
5	232-235/047-000	50
6	232-236/047-000	50
7	232-237/047-000	50
8	232-238/047-000	50
9	232-239/047-000	25
10	232-240/047-000	25
11	232-241/047-000	25
12	232-242/047-000	25
13	232-243/047-000	25
14	232-244/047-000	25
15	232-245/047-000	25
16	232-246/047-000	10
17	232-247/047-000	10
18	232-248/047-000	10
19	232-249/047-000	10
20	232-250/047-000	10
21	232-251/047-000	10
22	232-252/047-000	10
23	232-253/047-000	10
24	232-254/047-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-136/047-000

Pole No.	Item No.	PU
2	232-132/047-000	100
3	232-133/047-000	50
4	232-134/047-000	50
5	232-135/047-000	50
6	232-136/047-000	50
7	232-137/047-000	50
8	232-138/047-000	50
9	232-139/047-000	25
10	232-140/047-000	25
11	232-141/047-000	25
12	232-142/047-000	25
13	232-143/047-000	25
14	232-144/047-000	25
15	232-145/047-000	25
16	232-146/047-000	10
17	232-147/047-000	10
18	232-148/047-000	10
19	232-149/047-000	10
20	232-150/047-000	10
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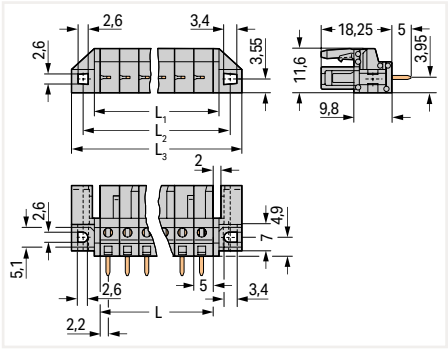
22	232-152/047-000	10
23	232-153/047-000	10
24	232-154/047-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

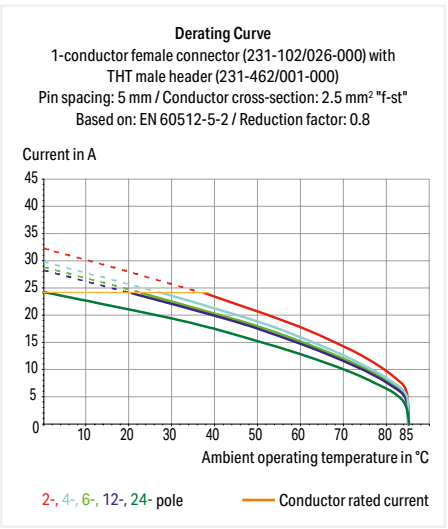
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI Classic ▸ 231 Series
Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Mounting	Page 869
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

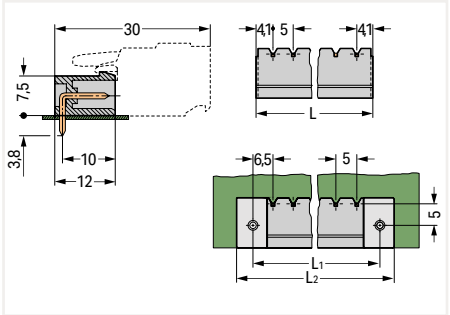
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-436/001-000

Pole No.	Item No.	PU
2	231-432/001-000	200
3	231-433/001-000	200
4	231-434/001-000	200
5	231-435/001-000	200
6	231-436/001-000	100
7	231-437/001-000	100
8	231-438/001-000	100
9	231-439/001-000	100
10	231-440/001-000	100
11	231-441/001-000	100
12	231-442/001-000	100
13	231-443/001-000	50
14	231-444/001-000	50
15	231-445/001-000	50
16	231-446/001-000	50
17	231-447/001-000	50
18	231-448/001-000	50
19	231-449/001-000	50
20	231-450/001-000	50
21	231-451/001-000	50
22	231-452/001-000	50
23	231-453/001-000	50
24	231-454/001-000	50

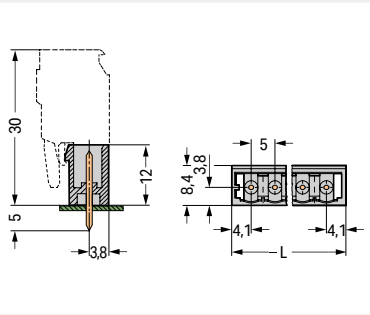


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-136/001-000

Pole No.	Item No.	PU
2	231-132/001-000	200
3	231-133/001-000	200
4	231-134/001-000	200
5	231-135/001-000	200
6	231-136/001-000	100
7	231-137/001-000	100
8	231-138/001-000	100
9	231-139/001-000	100
10	231-140/001-000	100
11	231-141/001-000	100
12	231-142/001-000	100
13	231-143/001-000	50
14	231-144/001-000	50
15	231-145/001-000	50
17	231-147/001-000	50
18	231-148/001-000	50
19	231-149/001-000	50
20	231-150/001-000	50
21	231-151/001-000	50
22	231-152/001-000	50
23	231-153/001-000	50
24	231-154/001-000	50

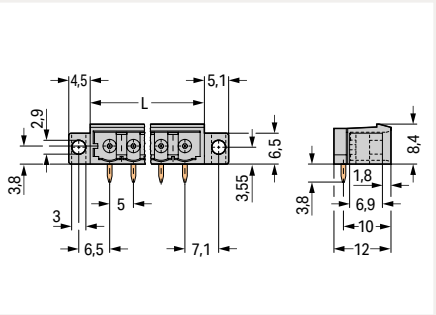


L = (pole no. – 1) x pin spacing + 8.2 mm

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-436/040-000

Pole No.	Item No.	PU
2	231-432/040-000	200
3	231-433/040-000	200
5	231-435/040-000	100
6	231-436/040-000	100
14	231-444/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

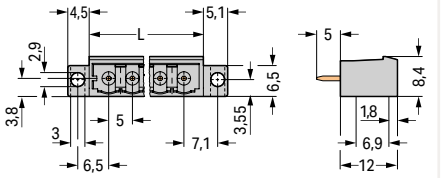
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-136/040-000

Pole No.	Item No.	PU
2	231-132/040-000	200
3	231-133/040-000	200
5	231-135/040-000	100
6	231-136/040-000	100
14	231-144/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

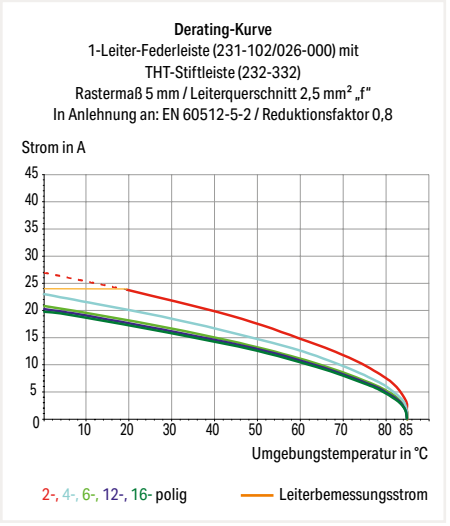
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header for double-deck assembly ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 5 mm ▸ Color: gray

- Male headers for double-deck assembly provide high-density wiring for wire-to-board connections
- Horizontal PCB mounting
- Double-deck design allows male or female headers with angled solder pins to be placed on the lower deck
- Coding option available



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

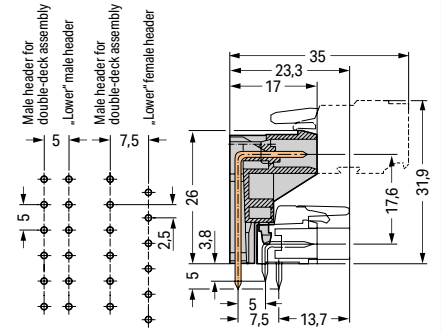
For approvals and corresponding ratings, visit www.wago.com

THT male header for double-deck assembly ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 5 mm ▸ Color: gray

232-336

Pole No.	Item No.	PU
2	232-332	100
3	232-333	100
4	232-334	100
5	232-335	100
6	232-336	50
7	232-337	50
8	232-338	50
10	232-340	50
12	232-342	50
16	232-346	25



Length = (pole no. – 1) x pin spacing + 8.2 mm
The solder pins of the "lower" male headers are in line.
The solder pins of the "lower" female headers are staggered by half a pin spacing.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

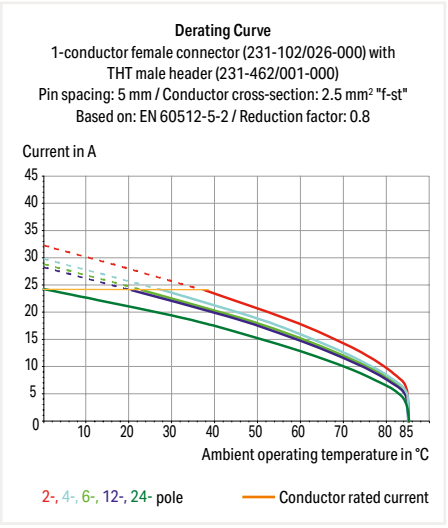
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Mounting	Page 869
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

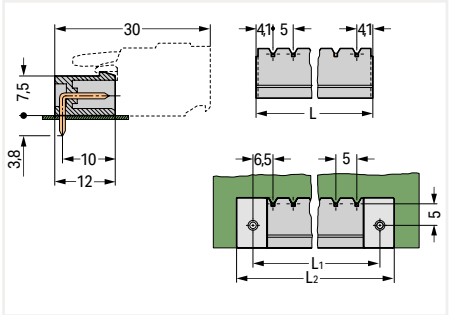
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-466/001-000

Pole No.	Item No.	PU
2	231-462/001-000	200
3	231-463/001-000	200
4	231-464/001-000	200
5	231-465/001-000	200
6	231-466/001-000	100
7	231-467/001-000	100
8	231-468/001-000	100
9	231-469/001-000	100
10	231-470/001-000	100
11	231-471/001-000	100
12	231-472/001-000	100
13	231-473/001-000	50
14	231-474/001-000	50
15	231-475/001-000	50
16	231-476/001-000	50
17	231-477/001-000	50
18	231-478/001-000	50
19	231-479/001-000	50
20	231-480/001-000	50
21	231-481/001-000	50
22	231-482/001-000	50
23	231-483/001-000	50
24	231-484/001-000	50

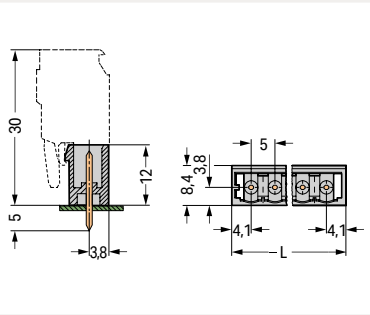


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-166/001-000

Pole No.	Item No.	PU
2	231-162/001-000	200
3	231-163/001-000	200
4	231-164/001-000	200
5	231-165/001-000	200
6	231-166/001-000	200
7	231-167/001-000	100
8	231-168/001-000	100
9	231-169/001-000	100
10	231-170/001-000	100
11	231-171/001-000	100
12	231-172/001-000	100
13	231-173/001-000	50
14	231-174/001-000	50
15	231-175/001-000	50
16	231-176/001-000	50
17	231-177/001-000	50
18	231-178/001-000	50
19	231-179/001-000	50
20	231-180/001-000	50
21	231-181/001-000	50
22	231-182/001-000	50
23	231-183/001-000	50
24	231-184/001-000	50

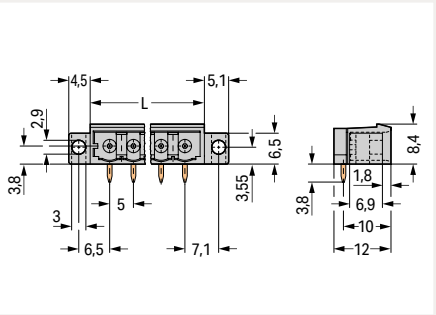


L = (pole no. – 1) x pin spacing + 8.2 mm

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-466/040-000

Pole No.	Item No.	PU
2	231-462/040-000	200
3	231-463/040-000	200
5	231-465/040-000	100
6	231-466/040-000	100
14	231-474/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

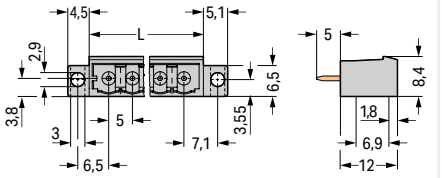
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-166/040-000

Pole No.	Item No.	PU
2	231-162/040-000	200
3	231-163/040-000	200
5	231-165/040-000	100
6	231-166/040-000	100
14	231-174/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

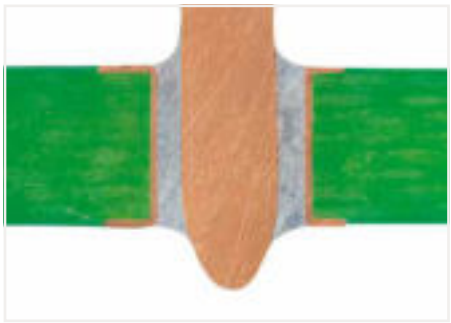
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

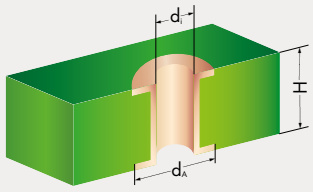
THR (Through-Hole Reflow) Soldering Process

By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.



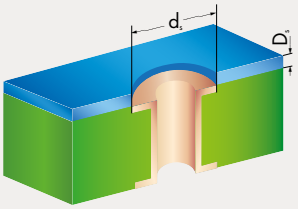
Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.

1



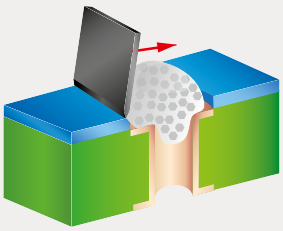
Metal-plated PCB bore hole

2



SMD positioning pattern

3



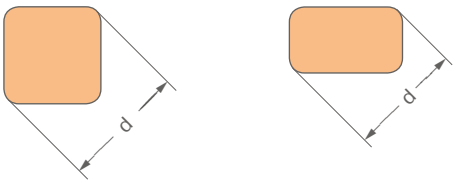
Solder paste application

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1.1^{+0.1}$	1.9	< 2	1.8	150	0.9	2.8
231 (1 x 1 mm)	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
231 (1.2 x 1.2 mm)	$1.7^{+0.1}$	2.8	< 2	2.7	150	1.5	2.4
236	$1.1^{+0.1}$	2.2	< 2	2.1	150	0.9	3.6
250	$1.1^{+0.1}$	2.0	< 2	1.9	150	0.9	2.4
713	$1.0^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
733	$1.2^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
734	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
2060	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	2.4
2061	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	1.5 / 2.4
2086	$1.0^{+0.1}$	2.0	< 2	1.9	150	0.85	1.5 / 2.4

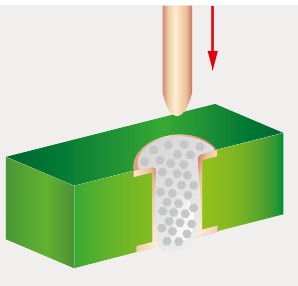
d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Solder pin form

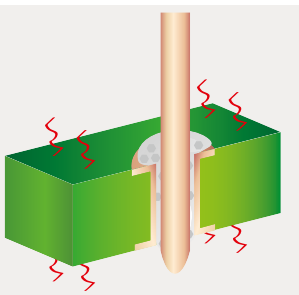


4



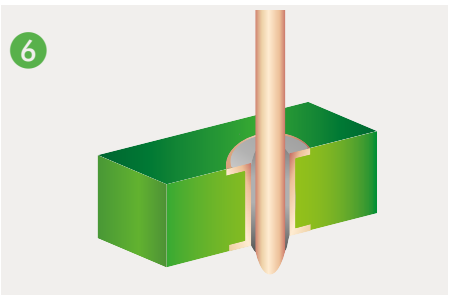
Component assembly, automatic/by hand

5



Reflow soldering process

6



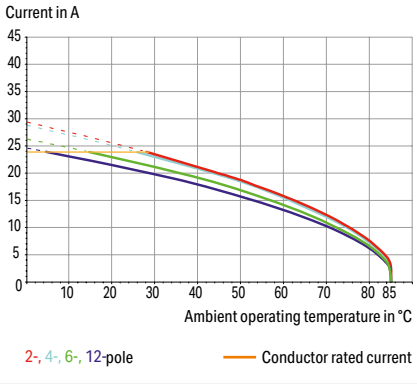
THR soldering joint

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers

Derating Curve
1-conductor female connector (231-102/026-000) with THR male header (231-432/001-000/105-604)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering	Page 596
Coding	Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

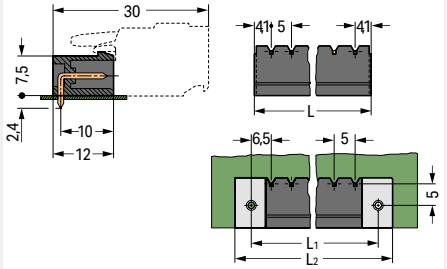
Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 0 °

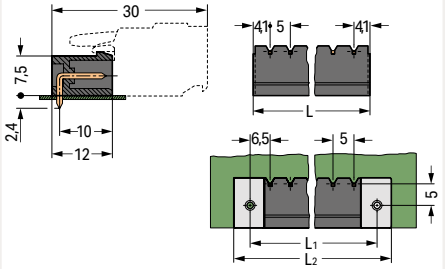
Suitable for automated assembly

Pole No.	Item No.	PU
2	231-432/001-000/105-604	200
3	231-433/001-000/105-604	200
4	231-434/001-000/105-604	200
5	231-435/001-000/105-604	200
6	231-436/001-000/105-604	100
7	231-437/001-000/105-604	100
8	231-438/001-000/105-604	100
9	231-439/001-000/105-604	100
10	231-440/001-000/105-604	100
11	231-441/001-000/105-604	100
12	231-442/001-000/105-604	100

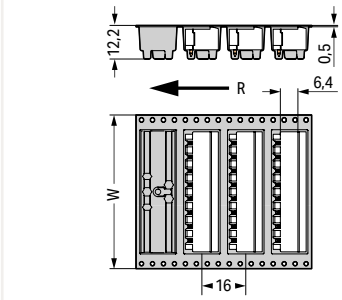
Pole No.	Tape width	Item No.	PU
2	32 mm	231-432/001-000/105-604/997-405	170
3	32 mm	231-433/001-000/105-604/997-405	170
4	56 mm	231-434/001-000/105-604/997-407	170
5	56 mm	231-435/001-000/105-604/997-407	170
6	56 mm	231-436/001-000/105-604/997-407	170
7	56 mm	231-437/001-000/105-604/997-407	170
8	56 mm	231-438/001-000/105-604/997-407	170
9	88 mm	231-439/001-000/105-604/997-409	170
10	88 mm	231-440/001-000/105-604/997-409	170
11	88 mm	231-441/001-000/105-604/997-409	170
12	88 mm	231-442/001-000/105-604/997-409	170



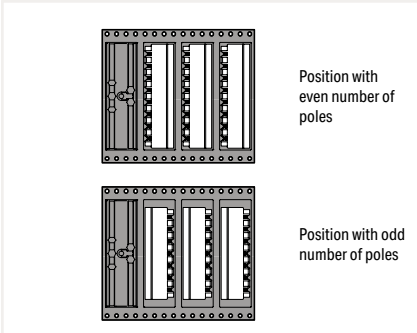
L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 4.8 mm
L_2 = L_1 + 7.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 4.8 mm
L_2 = L_1 + 7.2 mm



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

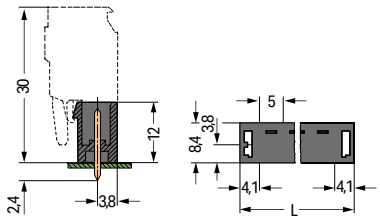
Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 90 °

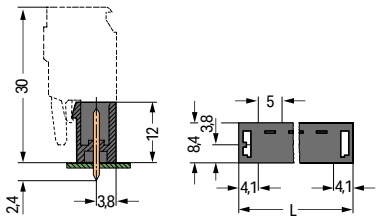
Suitable for automated assembly

Pole No.	Item No.	PU
2	231-132/001-000/105-604	200
3	231-133/001-000/105-604	200
4	231-134/001-000/105-604	200
5	231-135/001-000/105-604	200
6	231-136/001-000/105-604	100
7	231-137/001-000/105-604	100
8	231-138/001-000/105-604	100
9	231-139/001-000/105-604	100
10	231-140/001-000/105-604	100
11	231-141/001-000/105-604	100
12	231-142/001-000/105-604	100

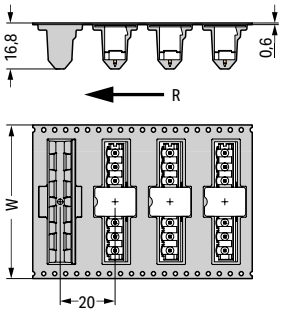
Pole No.	Tape width	Item No.	PU
2	32 mm	231-132/001-000/105-604/997-405	170
3	32 mm	231-133/001-000/105-604/997-405	170
4	56 mm	231-134/001-000/105-604/997-407	170
5	56 mm	231-135/001-000/105-604/997-407	170
6	56 mm	231-136/001-000/105-604/997-407	170
7	56 mm	231-137/001-000/105-604/997-407	170
8	56 mm	231-138/001-000/105-604/997-407	170
9	88 mm	231-139/001-000/105-604/997-409	170
10	88 mm	231-140/001-000/105-604/997-409	170
11	88 mm	231-141/001-000/105-604/997-409	170
12	88 mm	231-142/001-000/105-604/997-409	170



L = (pole no. – 1) x pin spacing + 8.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm



W = tape width
R = feed direction

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

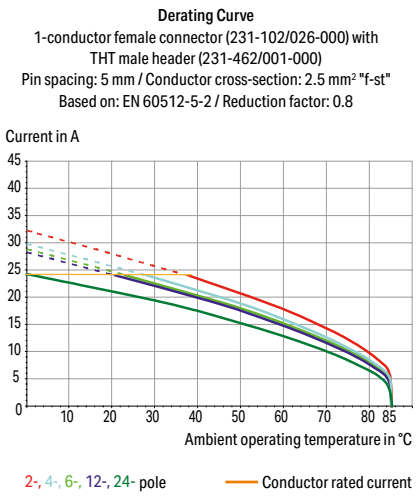
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 1.2 mm
Plated through-hole diameter (THR)	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering	Page 596
Coding	Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

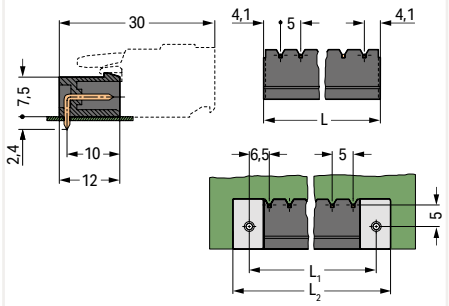
Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

Mating direction to the PCB: 0 °

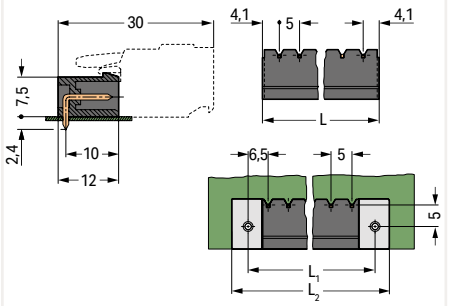
Suitable for automated assembly

Pole No.	Item No.	PU
2	231-462/001-000/105-604	200
3	231-463/001-000/105-604	200
4	231-464/001-000/105-604	200
5	231-465/001-000/105-604	200
6	231-466/001-000/105-604	100
7	231-467/001-000/105-604	100
8	231-468/001-000/105-604	100
9	231-469/001-000/105-604	100
10	231-470/001-000/105-604	100
11	231-471/001-000/105-604	100
12	231-472/001-000/105-604	100

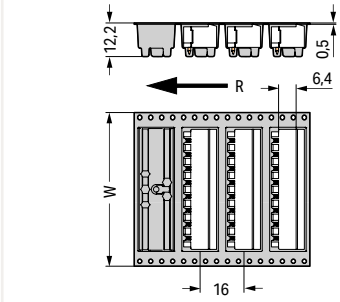
Pole No.	Tape width	Item No.	PU
2	32 mm	231-462/001-000/105-604/997-405	170
3	32 mm	231-463/001-000/105-604/997-405	170
4	56 mm	231-464/001-000/105-604/997-407	170
5	56 mm	231-465/001-000/105-604/997-407	170
6	56 mm	231-466/001-000/105-604/997-407	170
7	56 mm	231-467/001-000/105-604/997-407	170
8	56 mm	231-468/001-000/105-604/997-407	170
9	88 mm	231-469/001-000/105-604/997-409	170
10	88 mm	231-470/001-000/105-604/997-409	170
11	88 mm	231-471/001-000/105-604/997-409	170
12	88 mm	231-472/001-000/105-604/997-409	170



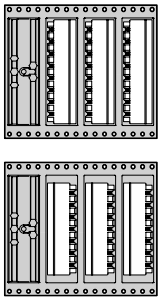
L = (pole no. x pin spacing) + 3.2 mm
L_1 = L + 4.8 mm
L_2 = L_1 + 7.2 mm



L = (pole no. x pin spacing) + 3.2 mm
L_1 = L + 4.8 mm
L_2 = L_1 + 7.2 mm



W = tape width
R = feed direction



Position with even number of poles

Position with odd number of poles

Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

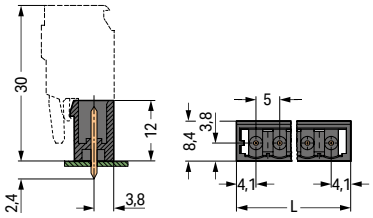
Pin spacing: 5 mm / 0.197 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

Mating direction to the PCB: 90 °

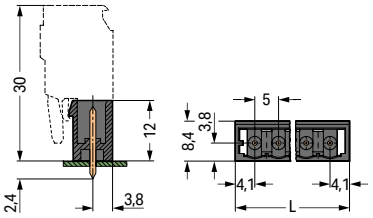
Suitable for automated assembly

Pole No.	Item No.	PU
2	231-162/001-000/105-604	200
3	231-163/001-000/105-604	200
4	231-164/001-000/105-604	200
5	231-165/001-000/105-604	200
6	231-166/001-000/105-604	100
7	231-167/001-000/105-604	100
8	231-168/001-000/105-604	100
9	231-169/001-000/105-604	100
10	231-170/001-000/105-604	100
11	231-171/001-000/105-604	100
12	231-172/001-000/105-604	100

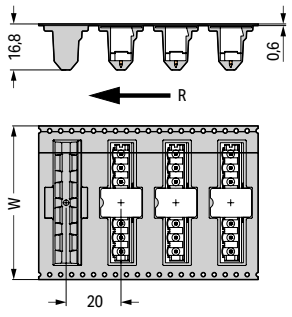
Pole No.	Tape width	Item No.	PU
2	32 mm	231-162/001-000/105-604/997-405	170
3	32 mm	231-163/001-000/105-604/997-405	170
4	56 mm	231-164/001-000/105-604/997-407	170
5	56 mm	231-165/001-000/105-604/997-407	170
6	56 mm	231-166/001-000/105-604/997-407	170
7	56 mm	231-167/001-000/105-604/997-407	170
8	56 mm	231-168/001-000/105-604/997-407	170
9	88 mm	231-169/001-000/105-604/997-409	170
10	88 mm	231-170/001-000/105-604/997-409	170
11	88 mm	231-171/001-000/105-604/997-409	170
12	88 mm	231-172/001-000/105-604/997-409	170



L = (pole no. x pin spacing) + 3.2 mm



L = (pole no. x pin spacing) + 3.2 mm



W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

Double pin header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5 mm / 0.197 inch ▸ Mounting type: DIN-35 rail ▸ Color: gray

- Allow *MCS* Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

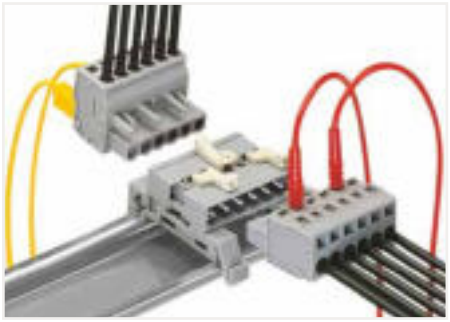
DIN-rail Page 868

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Double pin header ▶ *MCS* MIDI Classic ▶ 232 Series
Pin spacing: 5 mm / 0.197 inch ▶ Mounting type: DIN-35 rail ▶ Color: gray

232-506/007-000



Angled female connector – straight female connector

Pole No.	Item No.	PU
2	232-502/007-000	100
3	232-503/007-000	50
4	232-504/007-000	50
5	232-505/007-000	50
6	232-506/007-000	50
7	232-507/007-000	25
8	232-508/007-000	25
9	232-509/007-000	25
10	232-510/007-000	25
11	232-511/007-000	25
12	232-512/007-000	25
13	232-513/007-000	25
14	232-514/007-000	25
15	232-515/007-000	25
16	232-516/007-000	25
17	232-517/007-000	25
18	232-518/007-000	25
19	232-519/007-000	25
20	232-520/007-000	25
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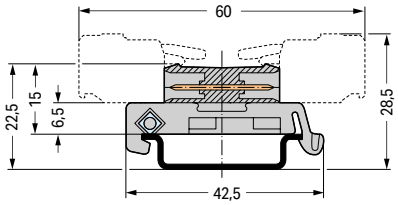
22	232-522/007-000	10
23	232-523/007-000	10
24	232-524/007-000	10



Total length = (pole no. – 1) x pin spacing + 8.2 mm

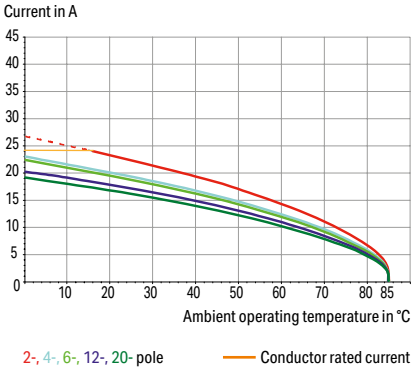
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers

Female connector for rail-mount terminal blocks ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Female connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Female connectors are touch-proof when unmated, providing a pluggable, live output
- With coding fingers

Derating Curve
Female connector (232-232/005-000) with
1-conductor male connector (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Test and measurement Page 725

See technical section for further information

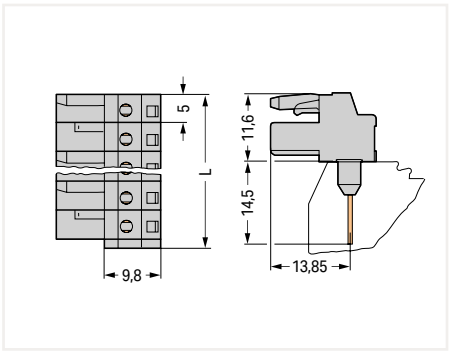
For approvals and corresponding ratings, visit www.wago.com

Female connector for rail-mount terminal blocks ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

Mating direction to the rail-mount terminal block: 0 °

232-236/005-000

Pole No.	Item No.	PU
2	232-232/005-000	100
3	232-233/005-000	100
4	232-234/005-000	100
5	232-235/005-000	100
6	232-236/005-000	50
7	232-237/005-000	50
8	232-238/005-000	50
9	232-239/005-000	50
10	232-240/005-000	50
11	232-241/005-000	25
12	232-242/005-000	25



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

Mating direction to the rail-mount terminal block: 90 °

232-136/005-000

Pole No.	Item No.	PU
2	232-132/005-000	100
3	232-133/005-000	100
4	232-134/005-000	100
5	232-135/005-000	100
6	232-136/005-000	50
7	232-137/005-000	50
8	232-138/005-000	50
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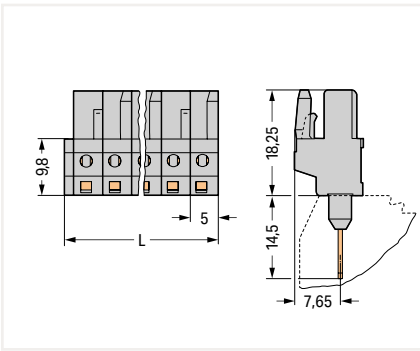
10	232-140/005-000	50
11	232-141/005-000	25
12	232-142/005-000	25

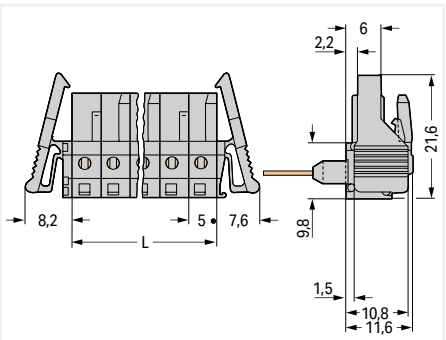


L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: Locking lever ▸ Mating direction to the rail-mount terminal block: 0 °

232-236/005-000/039-000

Pole No.	Item No.	PU
2	232-232/005-000/039-000	100
3	232-233/005-000/039-000	50
4	232-234/005-000/039-000	50
5	232-235/005-000/039-000	50
6	232-236/005-000/039-000	50
7	232-237/005-000/039-000	50
9	232-239/005-000/039-000	25
10	232-240/005-000/039-000	25
11	232-241/005-000/039-000	25
12	232-242/005-000/039-000	25



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

9

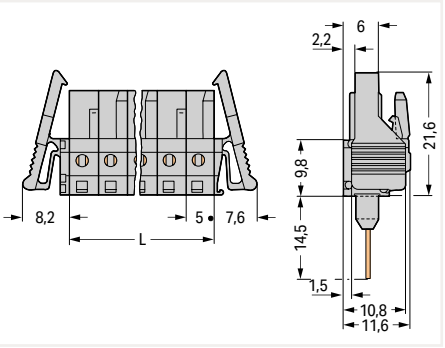
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers

Female connector for rail-mount terminal blocks ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

Locking of plug-in connection: Locking lever ▸ Mating direction to the rail-mount terminal block: 90 °

Pole No.	Item No.	PU
2	232-132/005-000/039-000	100
3	232-133/005-000/039-000	50
4	232-134/005-000/039-000	50
5	232-135/005-000/039-000	50
6	232-136/005-000/039-000	50
7	232-137/005-000/039-000	50
8	232-138/005-000/039-000	50
9	232-139/005-000/039-000	25
10	232-140/005-000/039-000	25
11	232-141/005-000/039-000	25
12	232-142/005-000/039-000	25



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

9

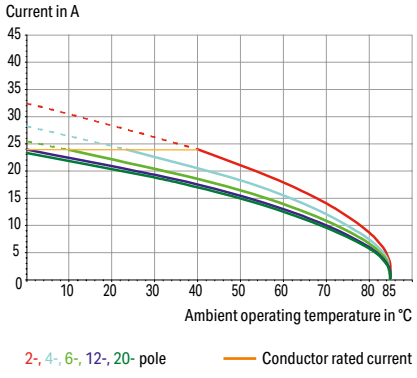
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers

Male connector for rail-mount terminal blocks ▸ *MCS* MIDI Classic ▸ 231 Series
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Male connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Pins can be touched when the connector is unplugged, so power supply should be performed via terminal block (observe rated voltage!)
- With coding fingers

Derating Curve
1-conductor female connector (231-102/026-000) with male connector (231-162/003-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Tool	Page 725

See technical section for further information

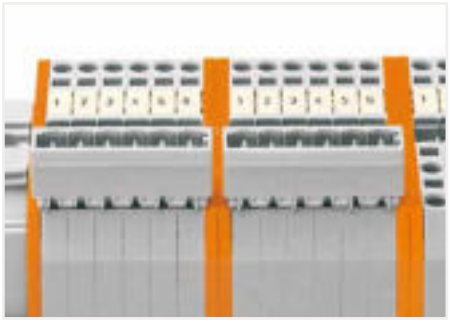
For approvals and corresponding ratings, visit www.wago.com

Male connector for rail-mount terminal blocks ▸ *MCS* MIDI Classic ▸ 231 Series
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

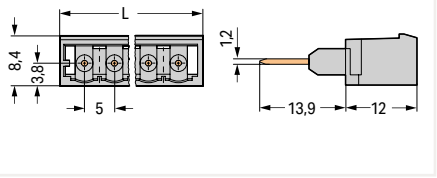
231-166/003-000

Inserting a male connector via multipole operating tool.

Pole No.	Item No.	PU
2	231-162/003-000	200
3	231-163/003-000	200
4	231-164/003-000	200
5	231-165/003-000	200
6	231-166/003-000	100
7	231-167/003-000	100
8	231-168/003-000	100
9	231-169/003-000	100
10	231-170/003-000	100
11	231-171/003-000	100
12	231-172/003-000	100



The extra width of the male connectors when used on front-entry, rail-mount terminal blocks must be compensated for by either two intermediate plates or rail-mount spacer block (block assembly).



L = (pole no. – 1) x pin spacing + 8.2 mm

Spacer blocks can be bridged via alternate or staggered jumpers.

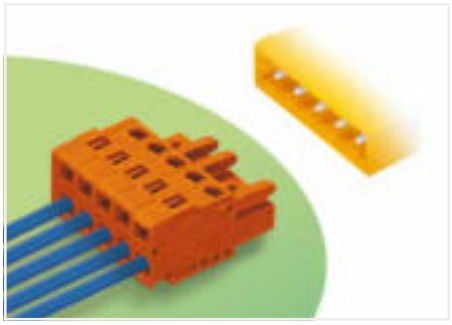
9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

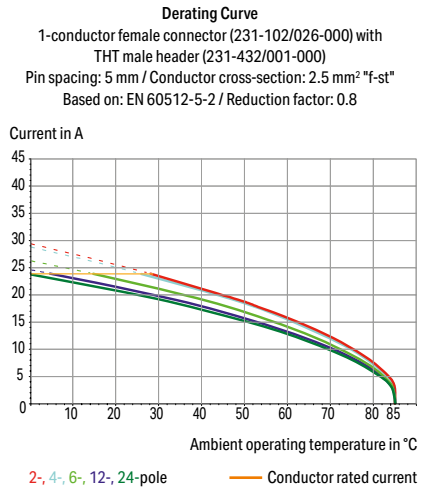
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 730
Test and measurement	Page 725, 886
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

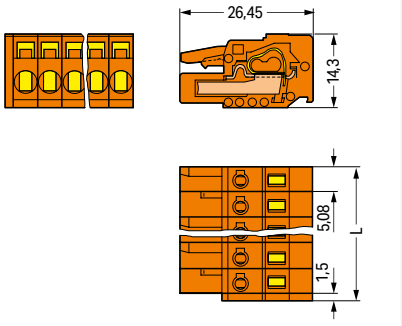
Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Plugging without loss of pin spacing

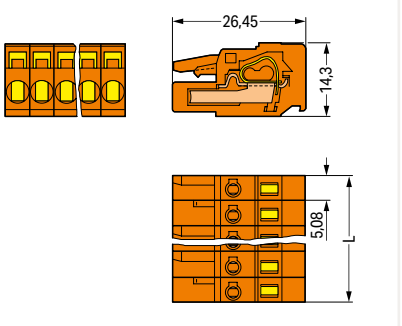
231-306/102-000

Pole No.	Item No.	PU
2	231-302/026-000	100
3	231-303/026-000	100
4	231-304/026-000	100
5	231-305/026-000	100
6	231-306/026-000	50
7	231-307/026-000	50
8	231-308/026-000	50
9	231-309/026-000	50
10	231-310/026-000	50
11	231-311/026-000	25
12	231-312/026-000	25
13	231-313/026-000	25
14	231-314/026-000	25
15	231-315/026-000	25
16	231-316/026-000	25
17	231-317/026-000	25
18	231-318/026-000	10
19	231-319/026-000	10
20	231-320/026-000	10
21	231-321/026-000	10
22	231-322/026-000	10
23	231-323/026-000	10
24	231-324/026-000	10

Pole No.	Item No.	PU
2	231-302/102-000	100
3	231-303/102-000	100
4	231-304/102-000	100
5	231-305/102-000	100
6	231-306/102-000	50
7	231-307/102-000	50
8	231-308/102-000	50
9	231-309/102-000	50
10	231-310/102-000	50
11	231-311/102-000	25
12	231-312/102-000	25
13	231-313/102-000	25
14	231-314/102-000	25
15	231-315/102-000	25
16	231-316/102-000	25
17	231-317/102-000	25
18	231-318/102-000	10
19	231-319/102-000	10
20	231-320/102-000	10
21	231-321/102-000	10
22	231-322/102-000	10
23	231-323/102-000	10
24	231-324/102-000	10

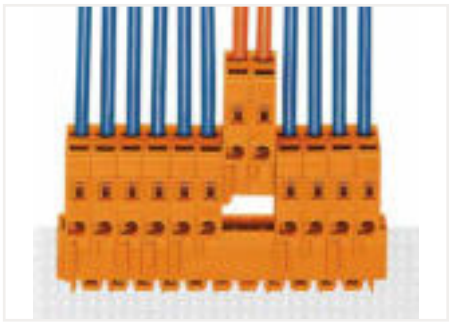


L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

Total pole number for female connectors
= pole number for male header



Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to "pole no. x pin spacing"!

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

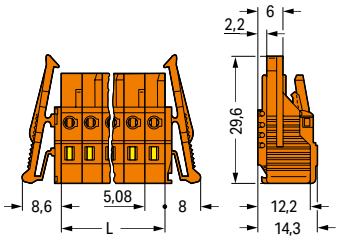
1-conductor female plug ▶ *MCS* MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0 ° ▶ Color: orange

Locking of plug-in connection: Locking lever

231-306/037-000

Pole No.	Item No.	PU
2	231-302/037-000	100
3	231-303/037-000	50
4	231-304/037-000	50
5	231-305/037-000	50
6	231-306/037-000	50
7	231-307/037-000	50
8	231-308/037-000	25
9	231-309/037-000	25
10	231-310/037-000	25
11	231-311/037-000	25
12	231-312/037-000	25
13	231-313/037-000	25
14	231-314/037-000	25
15	231-315/037-000	25
16	231-316/037-000	10
17	231-317/037-000	10
18	231-318/037-000	10
19	231-319/037-000	10
20	231-320/037-000	10
21	231-321/037-000	10
22	231-322/037-000	10
23	231-323/037-000	10
24	231-324/037-000	10

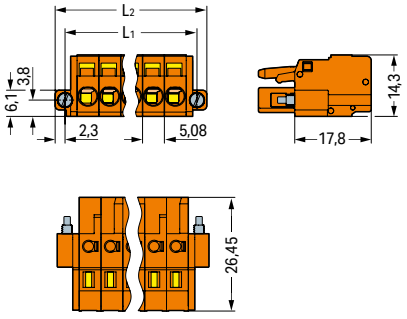


L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: Screw flange

231-306/107-000

Pole No.	Item No.	PU
2	231-302/107-000	100
3	231-303/107-000	100
4	231-304/107-000	50
5	231-305/107-000	50
6	231-306/107-000	50
7	231-307/107-000	50
8	231-308/107-000	50
9	231-309/107-000	25
10	231-310/107-000	25
12	231-312/107-000	25
14	231-314/107-000	25
15	231-315/107-000	25
16	231-316/107-000	25



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

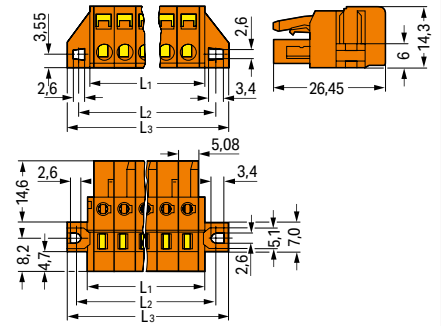
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

231-306/031-000

Pole No.	Item No.	PU
2	231-302/031-000	100
3	231-303/031-000	50
4	231-304/031-000	50
5	231-305/031-000	50
6	231-306/031-000	50
7	231-307/031-000	50
8	231-308/031-000	50
9	231-309/031-000	25
10	231-310/031-000	25
11	231-311/031-000	25
12	231-312/031-000	25
13	231-313/031-000	25
14	231-314/031-000	25
15	231-315/031-000	25
16	231-316/031-000	10
17	231-317/031-000	10
18	231-318/031-000	10
19	231-319/031-000	10
20	231-320/031-000	10
21	231-321/031-000	10
22	231-322/031-000	10
23	231-323/031-000	10
24	231-324/031-000	10



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2- to 3-pole female connectors – one latch only

Female connectors with mounting flanges can be used as PCB through-panel connectors – conductor termination parallel to CAGE CLAMP® actuation.

PCB female connectors with mounting flanges can be used as through-panel connectors for external wiring.

16-pole female connector with mounting flanges in a 19" rack – conductor termination parallel to CAGE CLAMP® actuation

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strips

231-306/027-000

Pole No.	Item No.	PU
6	231-306/027-000	50
7	231-307/027-000	50
8	231-308/027-000	50
9	231-309/027-000	25
10	231-310/027-000	25
11	231-311/027-000	25
12	231-312/027-000	25
13	231-313/027-000	25
14	231-314/027-000	25
15	231-315/027-000	25
16	231-316/027-000	10
17	231-317/027-000	10
18	231-318/027-000	10
19	231-319/027-000	10
20	231-320/027-000	10
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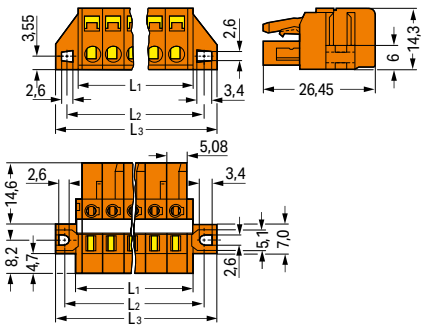
22	231-322/027-000	10
23	231-323/027-000	10
24	231-324/027-000	10



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2- to 3-pole female connectors – one latch only

Female connectors with mounting flanges can be used as PCB through-panel connectors – conductor termination parallel to CAGE CLAMP® actuation.

PCB female connectors with mounting flanges can be used as through-panel connectors for external wiring.

16-pole female connector with mounting flanges in a 19" rack – conductor termination parallel to CAGE CLAMP® actuation

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

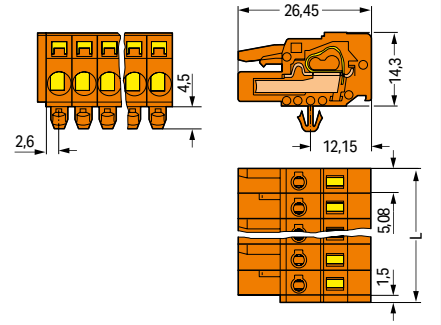
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

231-306/008-000

Pole No.	Item No.	PU
2	231-302/008-000	100
3	231-303/008-000	100
4	231-304/008-000	100
5	231-305/008-000	100
6	231-306/008-000	50
7	231-307/008-000	50
8	231-308/008-000	50
9	231-309/008-000	50
10	231-310/008-000	50
11	231-311/008-000	25
12	231-312/008-000	25
13	231-313/008-000	25
14	231-314/008-000	25
15	231-315/008-000	25
16	231-316/008-000	25
17	231-317/008-000	25
18	231-318/008-000	10
19	231-319/008-000	10
20	231-320/008-000	10
21	231-321/008-000	10
22	231-322/008-000	10
23	231-323/008-000	10
24	231-324/008-000	10



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

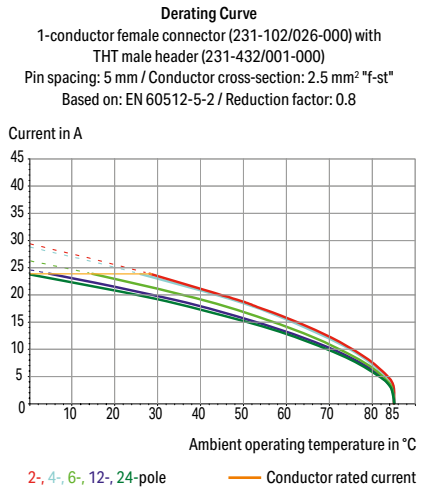
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

9

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Strain relief	Page 730
Test and measurement	Page 725, 886
Tool	Page 538
Direct marking	Page 734

See technical section for further information

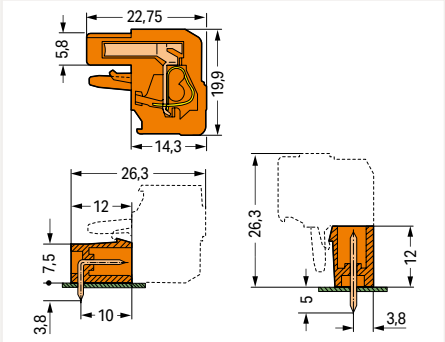
For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

Conductor entry direction to mating direction: 90 °

232-406/026-000

Pole No.	Item No.	PU
2	232-402/026-000	100
3	232-403/026-000	100
4	232-404/026-000	100
5	232-405/026-000	100
6	232-406/026-000	50
7	232-407/026-000	50
8	232-408/026-000	50
9	232-409/026-000	50
10	232-410/026-000	50
11	232-411/026-000	25
12	232-412/026-000	25
13	232-413/026-000	25
14	232-414/026-000	25
15	232-415/026-000	25
16	232-416/026-000	25
17	232-417/026-000	25
18	232-418/026-000	10
19	232-419/026-000	10
20	232-420/026-000	10
21	232-421/026-000	10
22	232-422/026-000	10
23	232-423/026-000	10
24	232-424/026-000	10

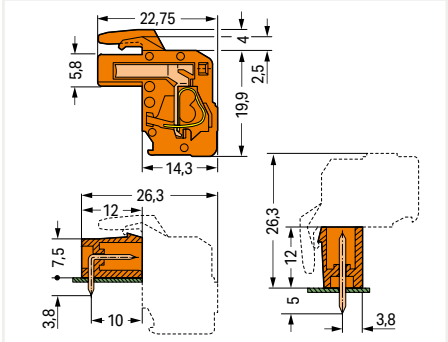


Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

Conductor entry direction to mating direction: 270 °

232-306/026-000

Pole No.	Item No.	PU
2	232-302/026-000	100
3	232-303/026-000	100
4	232-304/026-000	100
5	232-305/026-000	100
6	232-306/026-000	50
7	232-307/026-000	50
8	232-308/026-000	50
9	232-309/026-000	50
10	232-310/026-000	50
11	232-311/026-000	25
12	232-312/026-000	25
13	232-313/026-000	25
14	232-314/026-000	25
15	232-315/026-000	25
16	232-316/026-000	25
17	232-317/026-000	25
18	232-318/026-000	10
19	232-319/026-000	10
20	232-320/026-000	10
21	232-321/026-000	10
22	232-322/026-000	10
23	232-323/026-000	10
24	232-324/026-000	10



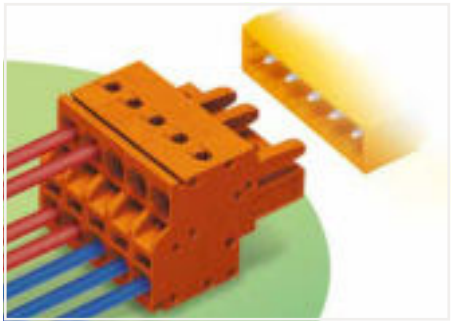
Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Gold-plated or partially gold-plated contact surfaces

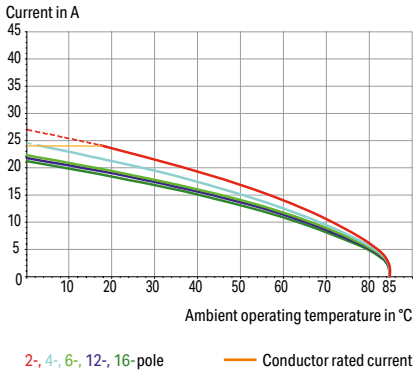
2-conductor female connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

Derating Curve
2-conductor female connector (231-2102/026-000) with THT male header (231-132/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 729
Test and measurement	Page 725
Tool	Page 725, 870
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

2-conductor female connector ▸ *MCS* MIDI Classic ▸ 231 Series

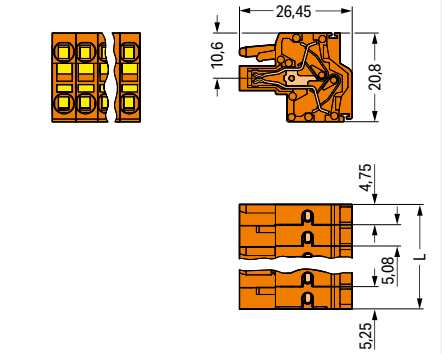
Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

	Locking of plug-in connection: Locking lever	Locking of plug-in connection: Screw flange
231-2306/026-000	231-2306/037-000	231-2306/107-000

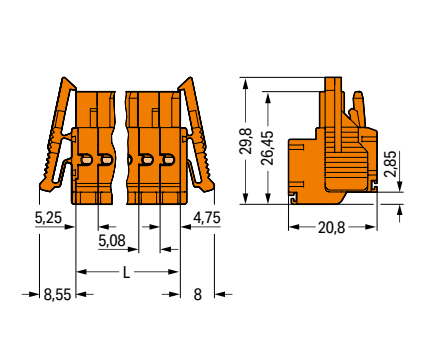
Pole No.	Item No.	PU
2	231-2302/026-000	100
3	231-2303/026-000	100
4	231-2304/026-000	100
5	231-2305/026-000	50
6	231-2306/026-000	50
7	231-2307/026-000	50
8	231-2308/026-000	50
9	231-2309/026-000	50
10	231-2310/026-000	50
11	231-2311/026-000	25
12	231-2312/026-000	25
13	231-2313/026-000	25
14	231-2314/026-000	25
15	231-2315/026-000	25
16	231-2316/026-000	25

Pole No.	Item No.	PU
2	231-2302/037-000	100
3	231-2303/037-000	50
4	231-2304/037-000	50
5	231-2305/037-000	50
6	231-2306/037-000	50
7	231-2307/037-000	50
8	231-2308/037-000	25
9	231-2309/037-000	25
10	231-2310/037-000	25
11	231-2311/037-000	25
12	231-2312/037-000	25
13	231-2313/037-000	25
14	231-2314/037-000	25
15	231-2315/037-000	25
16	231-2316/037-000	10

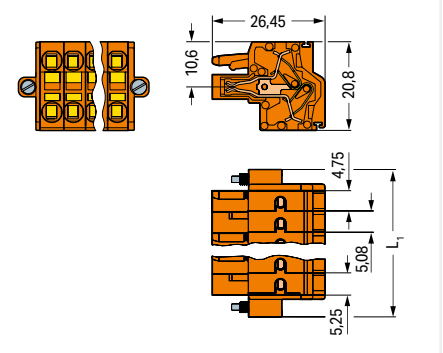
Pole No.	Item No.	PU
2	231-2302/107-000	100
3	231-2303/107-000	100
4	231-2304/107-000	50
5	231-2305/107-000	50
6	231-2306/107-000	50
7	231-2307/107-000	50
8	231-2308/107-000	50
9	231-2309/107-000	25
10	231-2310/107-000	25
12	231-2312/107-000	25
14	231-2314/107-000	25
15	231-2315/107-000	25
16	231-2316/107-000	10



L = (pole no. – 2) x pin spacing + 10 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 2) x pin spacing + 10 mm
2- to 3-pole female connectors – one latch only



L1 = (pole no. – 2) x pin spacing + 20 mm
2- to 3-pole female connectors – one latch only

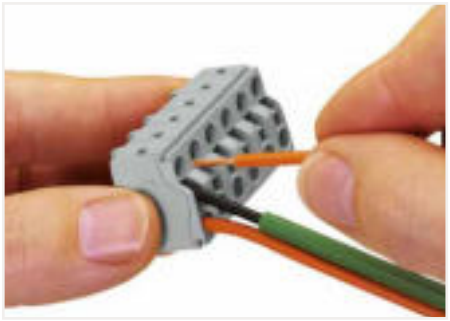
9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

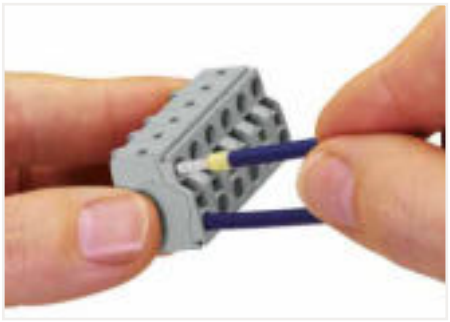
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Gold-plated or partially gold-plated contact surfaces

2-conductor female connector ▶ *MCS* MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0 ° ▶ Color: orange



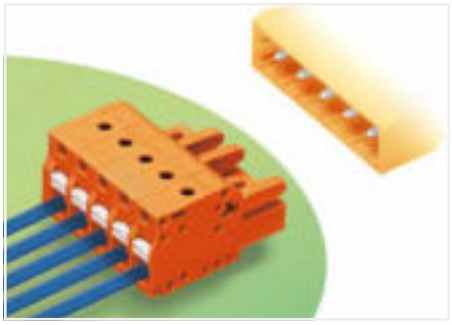
Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



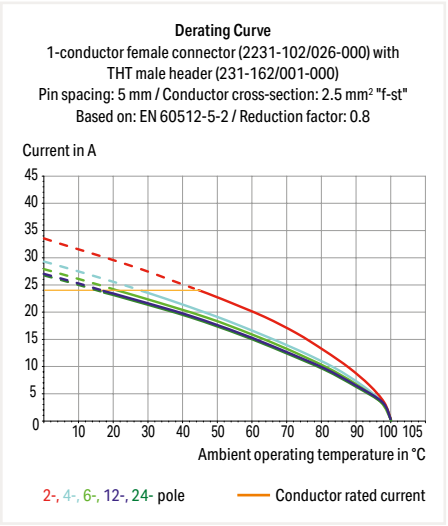
Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- Coding option available



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 729
Test and measurement	Page 725, 886
Tool	Page 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

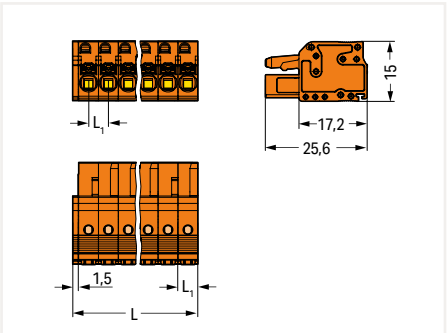
Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

	Plugging without loss of pin spacing	Locking of plug-in connection: Locking lever
2231-306/026-000	2231-306/102-000	2231-306/037-000

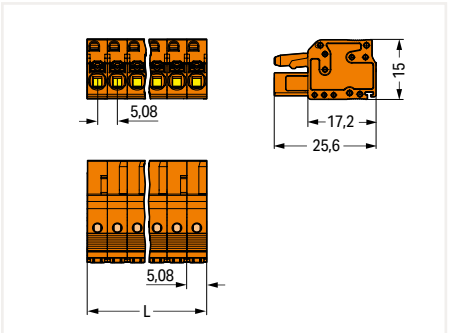
Pole No.	Item No.	PU
2	2231-302/026-000	100
3	2231-303/026-000	100
4	2231-304/026-000	100
5	2231-305/026-000	100
6	2231-306/026-000	50
7	2231-307/026-000	50
8	2231-308/026-000	50
9	2231-309/026-000	50
10	2231-310/026-000	50
11	2231-311/026-000	25
12	2231-312/026-000	25
13	2231-313/026-000	25
14	2231-314/026-000	25
15	2231-315/026-000	25
16	2231-316/026-000	25
17	2231-317/026-000	25
18	2231-318/026-000	10
19	2231-319/026-000	10
20	2231-320/026-000	10
21	2231-321/026-000	10
22	2231-322/026-000	10
23	2231-323/026-000	10
24	2231-324/026-000	10

Pole No.	Item No.	PU
2	2231-302/102-000	100
3	2231-303/102-000	100
4	2231-304/102-000	100
5	2231-305/102-000	100
6	2231-306/102-000	50
7	2231-307/102-000	50
8	2231-308/102-000	50
9	2231-309/102-000	50
10	2231-310/102-000	50
11	2231-311/102-000	25
12	2231-312/102-000	25
13	2231-313/102-000	25
14	2231-314/102-000	25
15	2231-315/102-000	25
16	2231-316/102-000	25
17	2231-317/102-000	25
18	2231-318/102-000	10
19	2231-319/102-000	10
20	2231-320/102-000	10
21	2231-321/102-000	10
22	2231-322/102-000	10
23	2231-323/102-000	10
24	2231-324/102-000	10

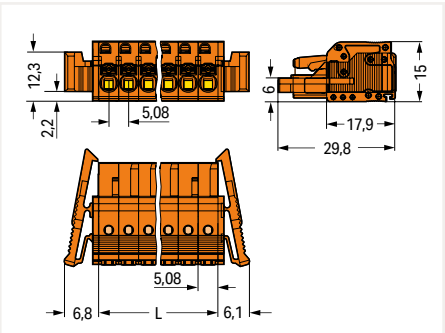
Pole No.	Item No.	PU
2	2231-302/037-000	100
3	2231-303/037-000	50
4	2231-304/037-000	50
5	2231-305/037-000	50
6	2231-306/037-000	50
7	2231-307/037-000	50
8	2231-308/037-000	25
9	2231-309/037-000	25
10	2231-310/037-000	25
11	2231-311/037-000	25
12	2231-312/037-000	25
13	2231-313/037-000	25
14	2231-314/037-000	25
15	2231-315/037-000	25
16	2231-316/037-000	10
17	2231-317/037-000	10
18	2231-318/037-000	10
19	2231-319/037-000	10
20	2231-320/037-000	10
21	2231-321/037-000	10
22	2231-322/037-000	10
23	2231-323/037-000	10
24	2231-324/037-000	10



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5,08 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

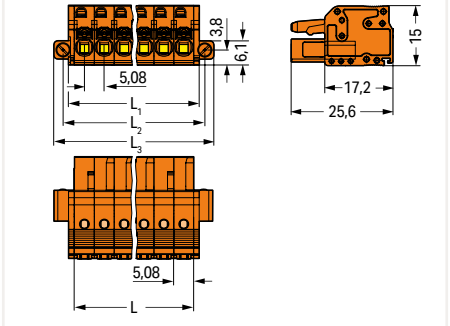
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Locking of plug-in connection: Screw flange

2231-306/107-000

Pole No.	Item No.	PU
2	2231-302/107-000	100
3	2231-303/107-000	100
4	2231-304/107-000	50
5	2231-305/107-000	50
6	2231-306/107-000	50
7	2231-307/107-000	50
8	2231-308/107-000	50
9	2231-309/107-000	25
10	2231-310/107-000	25
12	2231-312/107-000	25
14	2231-314/107-000	25
15	2231-315/107-000	25
16	2231-316/107-000	10

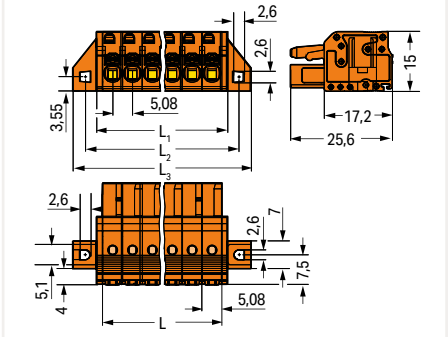


L = pole no. x pin spacing
L_1 = L + 2.8 mm
L_2 = L + 5.4 mm
L_3 = L + 10 mm
2- to 3-pole female connectors – one latch only

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

2231-306/031-000

Pole No.	Item No.	PU
2	2231-302/031-000	100
3	2231-303/031-000	50
4	2231-304/031-000	50
5	2231-305/031-000	50
6	2231-306/031-000	50
7	2231-307/031-000	50
8	2231-308/031-000	50
9	2231-309/031-000	50
10	2231-310/031-000	25
11	2231-311/031-000	25
12	2231-312/031-000	25
13	2231-313/031-000	25
14	2231-314/031-000	25
15	2231-315/031-000	25
16	2231-316/031-000	10
17	2231-317/031-000	10
18	2231-318/031-000	10
19	2231-319/031-000	10
20	2231-320/031-000	10
21	2231-321/031-000	10
22	2231-322/031-000	10
23	2231-323/031-000	10
24	2231-324/031-000	10

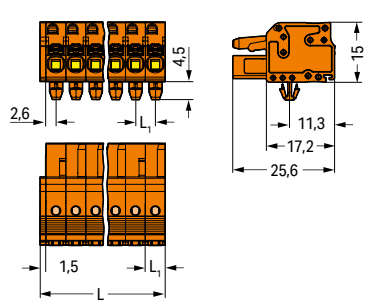


L = pole no. x pin spacing
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

2231-306/008-000

Pole No.	Item No.	PU
2	2231-302/008-000	100
3	2231-303/008-000	100
4	2231-304/008-000	100
5	2231-305/008-000	100
6	2231-306/008-000	50
7	2231-307/008-000	50
8	2231-308/008-000	50
9	2231-309/008-000	50
10	2231-310/008-000	50
11	2231-311/008-000	25
12	2231-312/008-000	25
13	2231-313/008-000	25
14	2231-314/008-000	25
15	2231-315/008-000	25
16	2231-316/008-000	25
17	2231-317/008-000	25
18	2231-318/008-000	10
19	2231-319/008-000	10
20	2231-320/008-000	10
21	2231-321/008-000	10
22	2231-322/008-000	10
23	2231-323/008-000	10
24	2231-324/008-000	10



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5.08 mm
2- to 3-pole female connectors – one latch only

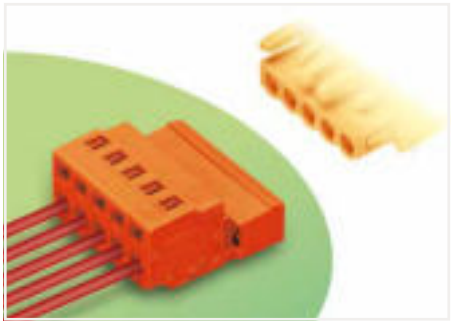
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

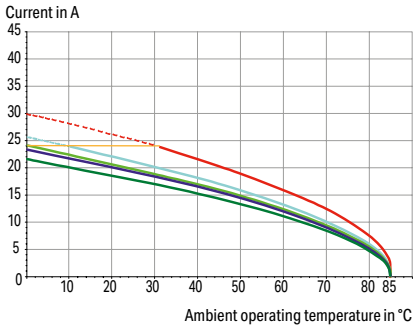
1-conductor male connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers

Derating Curve
1-conductor female connector (231-102/026-000) with 1-conductor male header (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Jumper	Page 733
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 730
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 231 Series

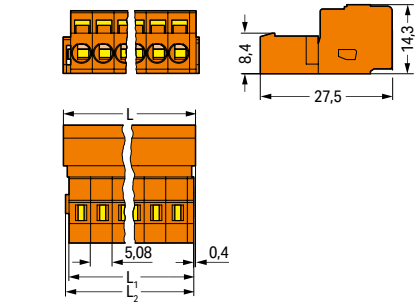
Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

	Locking of plug-in connection: Threaded flange	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange
	231-636/109-000	231-636/019-000

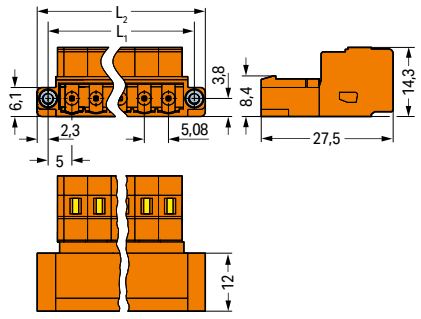
Pole No.	Item No.	PU
2	231-632	100
3	231-633	100
4	231-634	100
5	231-635	50
6	231-636	50
7	231-637	50
8	231-638	50
9	231-639	50
10	231-640	50
11	231-641	25
12	231-642	25
13	231-643	25
14	231-644	25
15	231-645	25
16	231-646	25
17	231-647	25
18	231-648	10
19	231-649	10
20	231-650	10
21	231-651	10
22	231-652	10
23	231-653	10
24	231-654	10

Pole No.	Item No.	PU
2	231-632/109-000	100
3	231-633/109-000	50
4	231-634/109-000	50
5	231-635/109-000	50
6	231-636/109-000	50
7	231-637/109-000	50
8	231-638/109-000	50
9	231-639/109-000	25
10	231-640/109-000	25
12	231-642/109-000	25
14	231-644/109-000	25
15	231-645/109-000	25
16	231-646/109-000	10

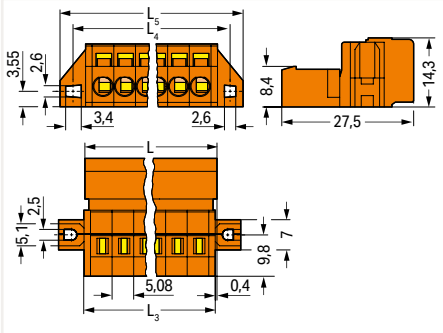
Pole No.	Item No.	PU
2	231-632/019-000	100
3	231-633/019-000	50
4	231-634/019-000	50
5	231-635/019-000	50
6	231-636/019-000	50
7	231-637/019-000	50
8	231-638/019-000	50
9	231-639/019-000	25
10	231-640/019-000	25
11	231-641/019-000	25
12	231-642/019-000	25
13	231-643/019-000	25
14	231-644/019-000	25
15	231-645/019-000	25
16	231-646/019-000	10
17	231-647/019-000	10
18	231-648/019-000	10
19	231-649/019-000	10
20	231-650/019-000	10
21	231-651/019-000	10
22	231-652/019-000	10
23	231-653/019-000	10
24	231-654/019-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L3 + 5.8 mm
L_5 = L3 + 11.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Mounting type: Feed-through mounting ▸ Mounting type: Snap-in

231-636/114-000

Male connector, with snap-in flanges, for feedthrough applications, for 0.5 … 2.5 mm plate thickness

Pole No.	Item No.	PU
2	231-632/114-000	50
3	231-633/114-000	50
4	231-634/114-000	50
5	231-635/114-000	50
6	231-636/114-000	50
7	231-637/114-000	25
8	231-638/114-000	25
9	231-639/114-000	25
10	231-640/114-000	25
11	231-641/114-000	25
12	231-642/114-000	25
13	231-643/114-000	25
14	231-644/114-000	25
15	231-645/114-000	10
16	231-646/114-000	10
17	231-647/114-000	10
18	231-648/114-000	10
19	231-649/114-000	10
20	231-650/114-000	10
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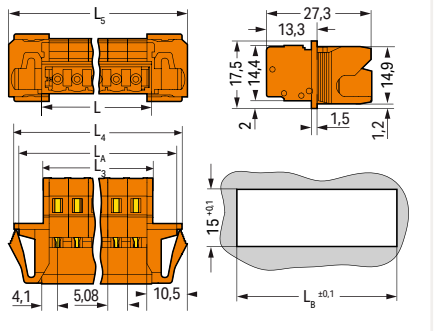
23	231-653/114-000	10
24	231-654/114-000	10



L = (pole no. x pin spacing) + 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

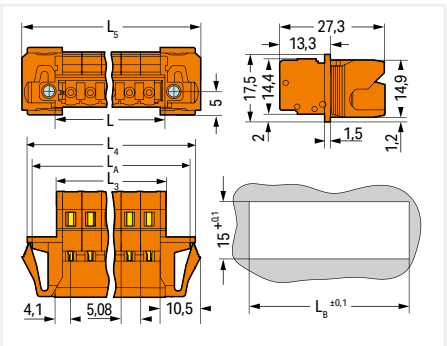
1-conductor male connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Mounting type: Feed-through mounting ▸ Mounting type: Snap-in ▸ Locking of plug-in connection: Threaded flange

231-636/129-000

Pole No.	Item No.	PU
2	231-632/129-000	50
3	231-633/129-000	50
4	231-634/129-000	50
5	231-635/129-000	50
6	231-636/129-000	50
7	231-637/129-000	25
8	231-638/129-000	25
9	231-639/129-000	25
10	231-640/129-000	25
12	231-642/129-000	25
14	231-644/129-000	25
15	231-645/129-000	10
16	231-646/129-000	10



L = (pole no. x pin spacing) + 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

231-636/018-000

Pole No.	Item No.	PU
2	231-632/018-000	100
3	231-633/018-000	100
4	231-634/018-000	100
5	231-635/018-000	50
6	231-636/018-000	50
7	231-637/018-000	50
8	231-638/018-000	50
9	231-639/018-000	50
10	231-640/018-000	50
11	231-641/018-000	25
12	231-642/018-000	25
13	231-643/018-000	25
14	231-644/018-000	25
15	231-645/018-000	25
16	231-646/018-000	25
17	231-647/018-000	25
18	231-648/018-000	10
19	231-649/018-000	10
20	231-650/018-000	10
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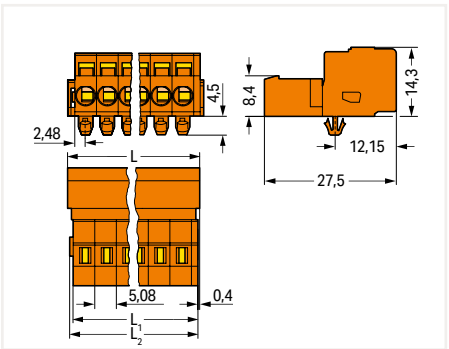
24	231-654/018-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

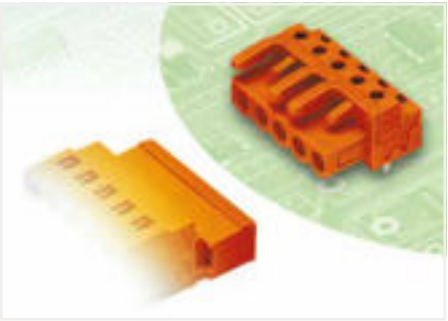
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

9

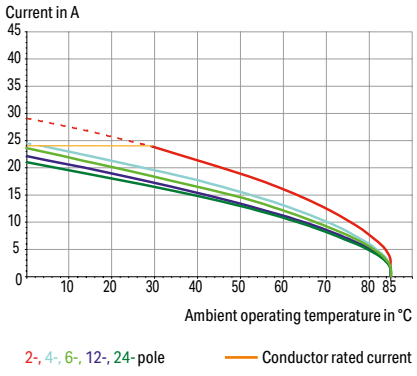
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

Derating Curve
THT female header (232-232) with
1-conductor male connector (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +85 °C

9

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 869
Test and measurement	Page 725, 886
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

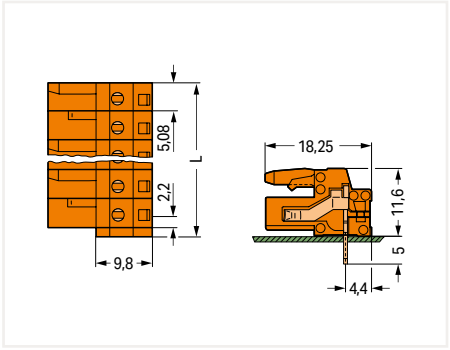
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Mating direction to the PCB: 0 °

232-266

Pole No.	Item No.	PU
2	232-262	100
3	232-263	100
4	232-264	100
5	232-265	100
6	232-266	50
7	232-267	50
8	232-268	50
9	232-269	50
10	232-270	50
11	232-271	25
12	232-272	25
13	232-273	25
14	232-274	25
15	232-275	25
16	232-276	25
17	232-277	25
18	232-278	25
19	232-279	10
20	232-280	10
21	232-281	10
22	232-282	10
23	232-283	10
24	232-284	10



L = (pole no. x pin spacing) + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-162

Pole No.	Item No.	PU
2	232-162	100
3	232-163	100
4	232-164	100
5	232-165	100
6	232-166	50
7	232-167	50
8	232-168	50
9	232-169	50
10	232-170	50
11	232-171	25
12	232-172	25
13	232-173	25
14	232-174	25
15	232-175	25
16	232-176	25
17	232-177	25
18	232-178	25
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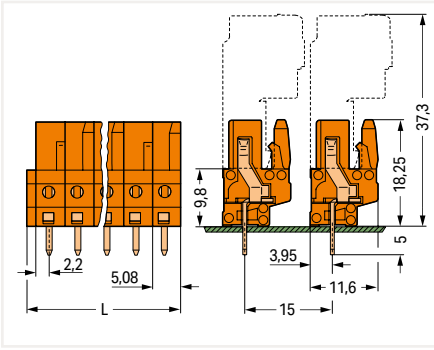
24	232-184	10

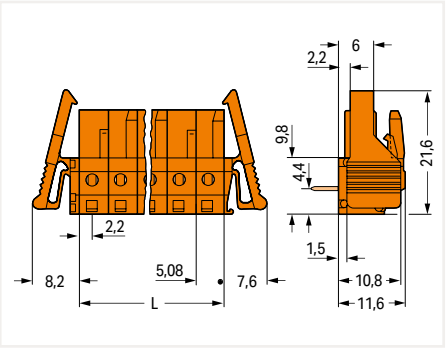


L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

232-266/039-000

Pole No.	Item No.	PU
2	232-262/039-000	100
3	232-263/039-000	50
4	232-264/039-000	50
5	232-265/039-000	50
6	232-266/039-000	50
7	232-267/039-000	50
8	232-268/039-000	50
9	232-269/039-000	25
10	232-270/039-000	25
11	232-271/039-000	25
12	232-272/039-000	25
13	232-273/039-000	25
14	232-274/039-000	25
15	232-275/039-000	25
16	232-276/039-000	10
17	232-277/039-000	10
18	232-278/039-000	10
19	232-279/039-000	10
20	232-280/039-000	10
21	232-281/039-000	10
22	232-282/039-000	10
23	232-283/039-000	10
24	232-284/039-000	10



L = pole no. x pin spacing
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

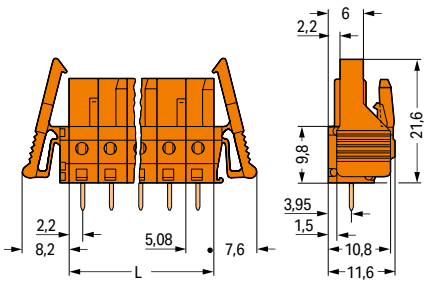
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

232-166/039-000

Pole No.	Item No.	PU
2	232-162/039-000	100
3	232-163/039-000	50
4	232-164/039-000	50
5	232-165/039-000	50
6	232-166/039-000	50
7	232-167/039-000	50
8	232-168/039-000	50
9	232-169/039-000	25
10	232-170/039-000	25
11	232-171/039-000	25
12	232-172/039-000	25
13	232-173/039-000	25
14	232-174/039-000	25
15	232-175/039-000	25
16	232-176/039-000	10
17	232-177/039-000	10
18	232-178/039-000	10
19	232-179/039-000	10
20	232-180/039-000	10
21	232-181/039-000	10
22	232-182/039-000	10
23	232-183/039-000	10
24	232-184/039-000	10



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

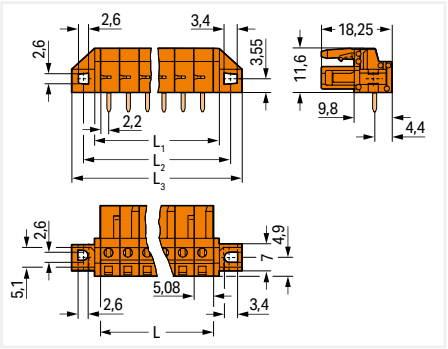
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

232-266/031-000

Pole No.	Item No.	PU
2	232-262/031-000	100
3	232-263/031-000	50
4	232-264/031-000	50
5	232-265/031-000	50
6	232-266/031-000	50
7	232-267/031-000	50
8	232-268/031-000	50
9	232-269/031-000	25
10	232-270/031-000	25
11	232-271/031-000	25
12	232-272/031-000	25
13	232-273/031-000	25
14	232-274/031-000	25
15	232-275/031-000	25
16	232-276/031-000	10
17	232-277/031-000	10
18	232-278/031-000	10
19	232-279/031-000	10
20	232-280/031-000	10
21	232-281/031-000	10
22	232-282/031-000	10
23	232-283/031-000	10
24	232-284/031-000	10

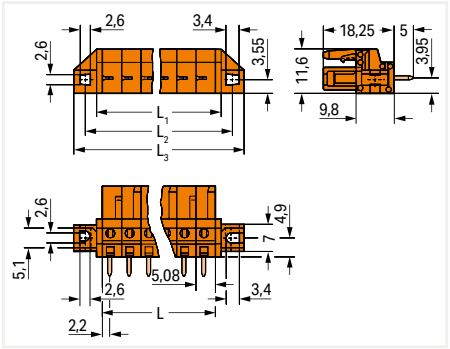


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-166/031-000

Pole No.	Item No.	PU
2	232-162/031-000	100
3	232-163/031-000	50
4	232-164/031-000	50
5	232-165/031-000	50
6	232-166/031-000	50
7	232-167/031-000	50
8	232-168/031-000	50
9	232-169/031-000	25
10	232-170/031-000	25
11	232-171/031-000	25
12	232-172/031-000	25
13	232-173/031-000	25
14	232-174/031-000	25
15	232-175/031-000	25
16	232-176/031-000	10
17	232-177/031-000	10
18	232-178/031-000	10
19	232-179/031-000	10
20	232-180/031-000	10
21	232-181/031-000	10
22	232-182/031-000	10
23	232-183/031-000	10
24	232-184/031-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

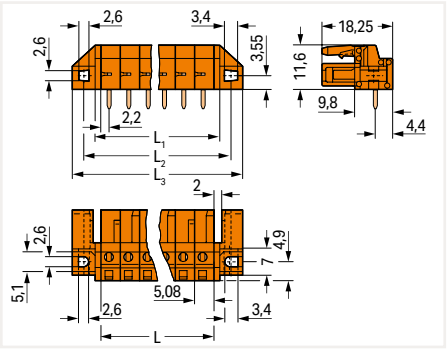
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Mounting type: Flush feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

232-266/047-000

Pole No.	Item No.	PU
2	232-262/047-000	100
3	232-263/047-000	50
4	232-264/047-000	50
5	232-265/047-000	50
6	232-266/047-000	50
7	232-267/047-000	50
8	232-268/047-000	50
9	232-269/047-000	25
10	232-270/047-000	25
11	232-271/047-000	25
12	232-272/047-000	25
13	232-273/047-000	25
14	232-274/047-000	25
15	232-275/047-000	25
16	232-276/047-000	10
17	232-277/047-000	10
18	232-278/047-000	10
19	232-279/047-000	10
20	232-280/047-000	10
21	232-281/047-000	10
22	232-282/047-000	10
23	232-283/047-000	10
24	232-284/047-000	10

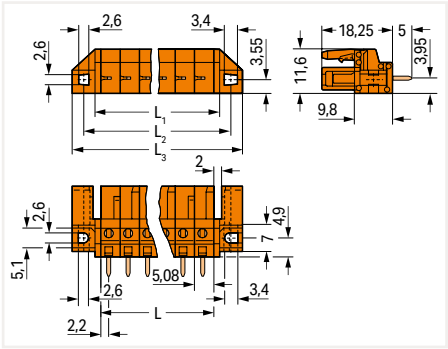


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-166/047-000

Pole No.	Item No.	PU
2	232-162/047-000	100
3	232-163/047-000	50
4	232-164/047-000	50
5	232-165/047-000	50
6	232-166/047-000	50
7	232-167/047-000	50
8	232-168/047-000	50
9	232-169/047-000	25
10	232-170/047-000	25
11	232-171/047-000	25
12	232-172/047-000	25
13	232-173/047-000	25
14	232-174/047-000	25
15	232-175/047-000	25
16	232-176/047-000	10
17	232-177/047-000	10
18	232-178/047-000	10
19	232-179/047-000	10
20	232-180/047-000	10
21	232-181/047-000	10
22	232-182/047-000	10
23	232-183/047-000	10
24	232-184/047-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

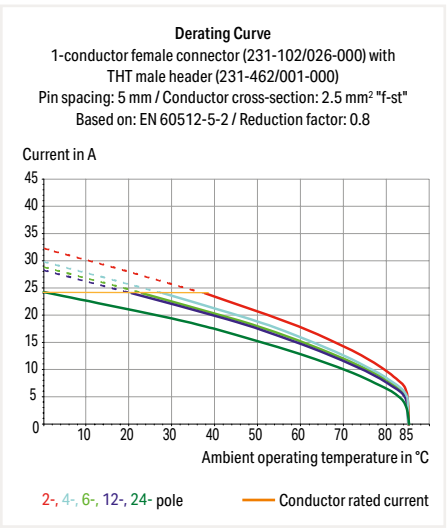
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI Classic ▸ 231 Series
Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

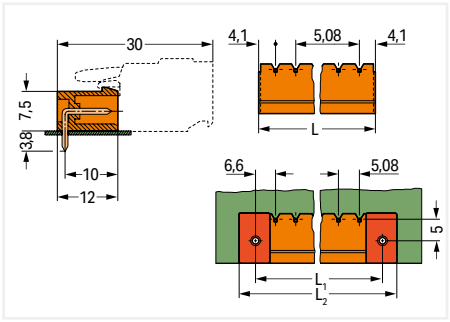
For approvals and corresponding ratings, visit www.wago.com

THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

Pole No.	Item No.	PU
2	231-532/001-000	200
3	231-533/001-000	200
4	231-534/001-000	200
5	231-535/001-000	200
6	231-536/001-000	100
7	231-537/001-000	100
8	231-538/001-000	100
9	231-539/001-000	100
10	231-540/001-000	100
11	231-541/001-000	100
12	231-542/001-000	100
13	231-543/001-000	50
14	231-544/001-000	50
15	231-545/001-000	50
16	231-546/001-000	50
17	231-547/001-000	50
18	231-548/001-000	50
19	231-549/001-000	50
20	231-550/001-000	50
21	231-551/001-000	50
22	231-552/001-000	50
23	231-553/001-000	50
24	231-554/001-000	50

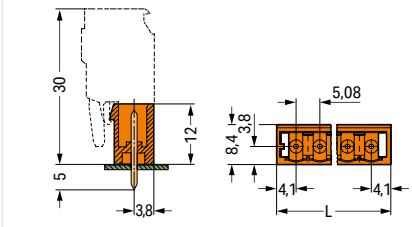


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-336/001-000

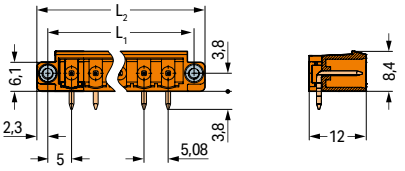
Pole No.	Item No.	PU
2	231-332/001-000	200
3	231-333/001-000	200
4	231-334/001-000	200
5	231-335/001-000	200
6	231-336/001-000	100
7	231-337/001-000	100
8	231-338/001-000	100
9	231-339/001-000	100
10	231-340/001-000	100
11	231-341/001-000	100
12	231-342/001-000	100
13	231-343/001-000	50
14	231-344/001-000	50
15	231-345/001-000	50
16	231-346/001-000	50
17	231-347/001-000	50
18	231-348/001-000	50
19	231-349/001-000	50
20	231-350/001-000	50
21	231-351/001-000	50
22	231-352/001-000	50
23	231-353/001-000	50
24	231-354/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

Pole No.	Item No.	PU
2	231-532/108-000	200
3	231-533/108-000	200
4	231-534/108-000	100
5	231-535/108-000	100
6	231-536/108-000	100
7	231-537/108-000	100
8	231-538/108-000	100
9	231-539/108-000	100
10	231-540/108-000	100
12	231-542/108-000	100
14	231-544/108-000	50
15	231-545/108-000	50
16	231-546/108-000	50



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

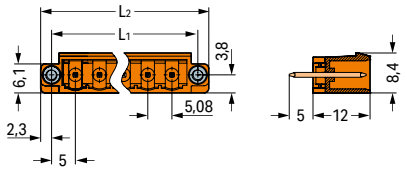
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-336/108-000

Pole No.	Item No.	PU
2	231-332/108-000	200
3	231-333/108-000	200
4	231-334/108-000	100
5	231-335/108-000	100
6	231-336/108-000	100
7	231-337/108-000	100
8	231-338/108-000	100
9	231-339/108-000	100
10	231-340/108-000	100
12	231-342/108-000	100
14	231-344/108-000	50
15	231-345/108-000	50
16	231-346/108-000	50



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm

9

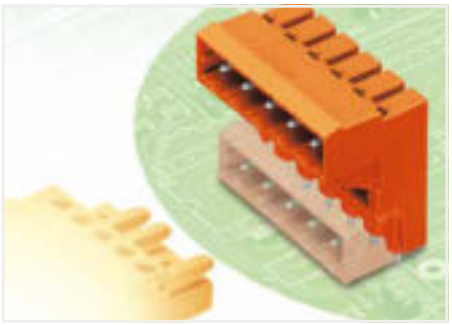
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

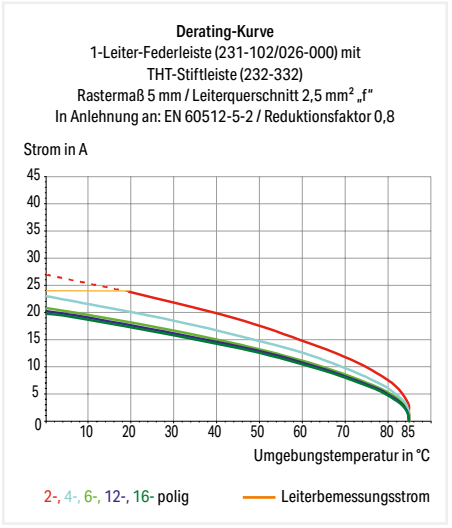
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header for double-deck assembly ▶ *MCS* MIDI Classic ▶ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▶ Solder pin dimensions: 1 x 1 mm ▶ Mating direction to the PCB: 0 ° ▶ Solder pin length: 5 mm ▶ Color: orange



- Male headers for double-deck assembly provide high-density wiring for wire-to-board connections
- Horizontal PCB mounting
- Double-deck design allows male or female headers with angled solder pins to be placed on the lower deck
- Coding option available



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

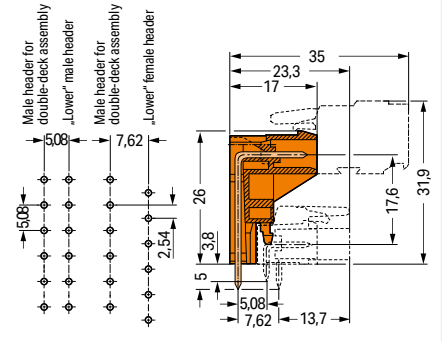
For approvals and corresponding ratings, visit www.wago.com

THT male header for double-deck assembly ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 5 mm ▸ Color: orange

232-366

Pole No.	Item No.	PU
2	232-362	100
3	232-363	100
4	232-364	100
6	232-366	50
8	232-368	50
10	232-370	50
12	232-372	50
16	232-376	25



Length = (pole no. – 1) x pin spacing + 8.2 mm
The solder pins of the "lower" male headers are in line.
The solder pins of the "lower" female headers are staggered by half a pin spacing.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

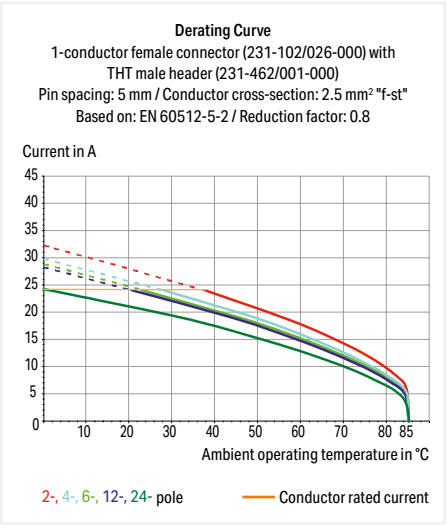
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange

- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

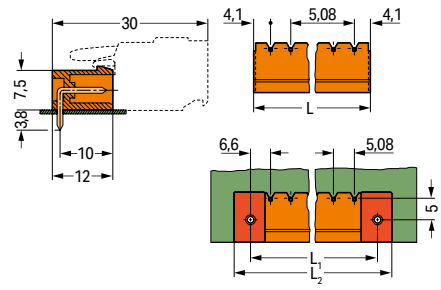
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-566/001-000

Pole No.	Item No.	PU
2	231-562/001-000	200
3	231-563/001-000	200
4	231-564/001-000	200
5	231-565/001-000	200
6	231-566/001-000	100
7	231-567/001-000	100
8	231-568/001-000	100
9	231-569/001-000	100
10	231-570/001-000	100
11	231-571/001-000	100
12	231-572/001-000	100
13	231-573/001-000	50
14	231-574/001-000	50
15	231-575/001-000	50
16	231-576/001-000	50
17	231-577/001-000	50
18	231-578/001-000	50
19	231-579/001-000	50
20	231-580/001-000	50
21	231-581/001-000	50
22	231-582/001-000	50
23	231-583/001-000	50
24	231-584/001-000	50

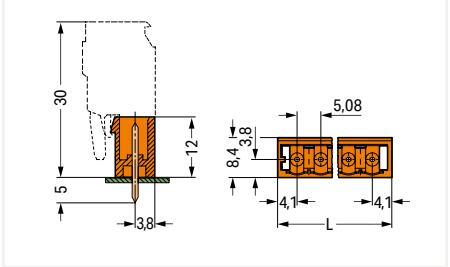


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-366/001-000

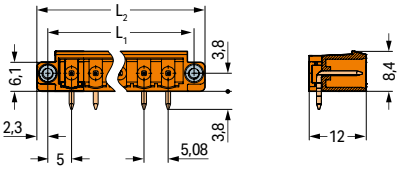
Pole No.	Item No.	PU
2	231-362/001-000	200
3	231-363/001-000	200
4	231-364/001-000	200
5	231-365/001-000	200
6	231-366/001-000	100
7	231-367/001-000	100
8	231-368/001-000	100
9	231-369/001-000	100
10	231-370/001-000	100
11	231-371/001-000	100
12	231-372/001-000	100
13	231-373/001-000	50
14	231-374/001-000	50
15	231-375/001-000	50
16	231-376/001-000	50
17	231-377/001-000	50
18	231-378/001-000	50
19	231-379/001-000	50
20	231-380/001-000	50
21	231-381/001-000	50
22	231-382/001-000	50
23	231-383/001-000	50
24	231-384/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

Pole No.	Item No.	PU
2	231-562/108-000	100
3	231-563/108-000	200
4	231-564/108-000	100
5	231-565/108-000	100
6	231-566/108-000	100
7	231-567/108-000	100
8	231-568/108-000	100
9	231-569/108-000	100
10	231-570/108-000	100
12	231-572/108-000	100
14	231-574/108-000	50
15	231-575/108-000	50
16	231-576/108-000	50



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

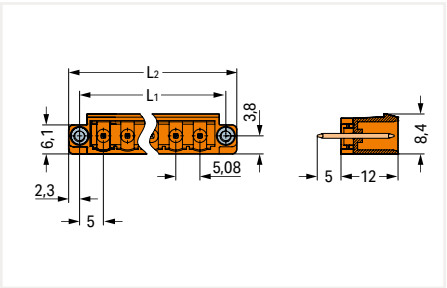
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm / 0.2 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-366/108-000

Pole No.	Item No.	PU
2	231-362/108-000	200
3	231-363/108-000	200
4	231-364/108-000	100
5	231-365/108-000	100
6	231-366/108-000	100
7	231-367/108-000	100
8	231-368/108-000	100
9	231-369/108-000	100
10	231-370/108-000	100
12	231-372/108-000	100
14	231-374/108-000	50
15	231-375/108-000	50
16	231-376/108-000	50



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

Double pin header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5.08 mm / 0.2 inch ▸ Mounting type: DIN-35 rail ▸ Color: orange

- Allow *MCS* Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

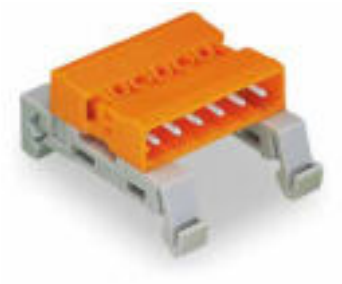
Coding Page 726

DIN-rail Page 868

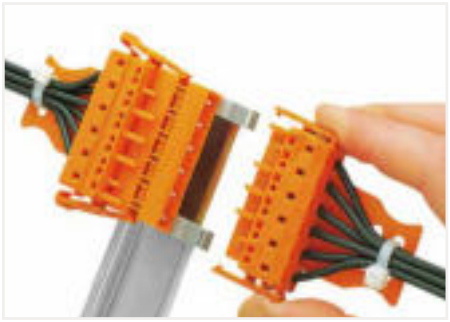
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Double pin header ▶ *MCS* MIDI Classic ▶ 232 Series
Pin spacing: 5.08 mm / 0.2 inch ▶ Mounting type: DIN-35 rail ▶ Color: orange

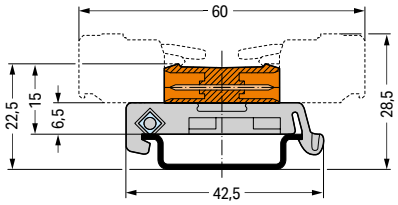


232-536/007-000



Female connectors with locking levers

Pole No.	Item No.	PU
2	232-532/007-000	100
3	232-533/007-000	50
4	232-534/007-000	50
5	232-535/007-000	50
6	232-536/007-000	50
7	232-537/007-000	25
8	232-538/007-000	25
9	232-539/007-000	25
10	232-540/007-000	25
11	232-541/007-000	25
12	232-542/007-000	25
13	232-543/007-000	25
14	232-544/007-000	25
15	232-545/007-000	25
16	232-546/007-000	25
17	232-547/007-000	25
18	232-548/007-000	25
19	232-549/007-000	10
20	232-550/007-000	25
21	232-551/007-000	10
22	232-552/007-000	10
23	232-553/007-000	10
24	232-554/007-000	10



Total length = (pole no. – 1) x pin spacing + 8.2 mm

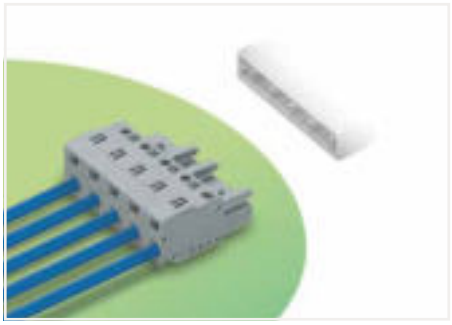
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

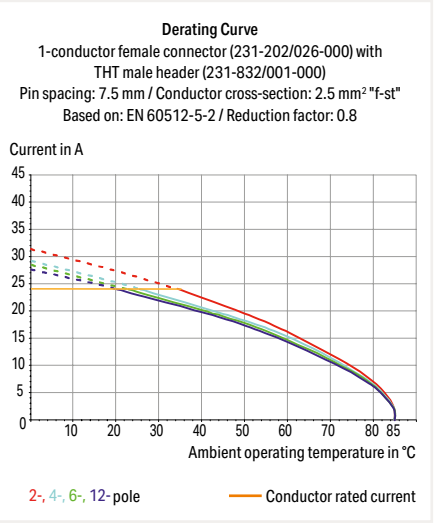
- Other pole numbers

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 731
Test and measurement	Page 725, 886
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

	Locking of plug-in connection: Locking lever	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

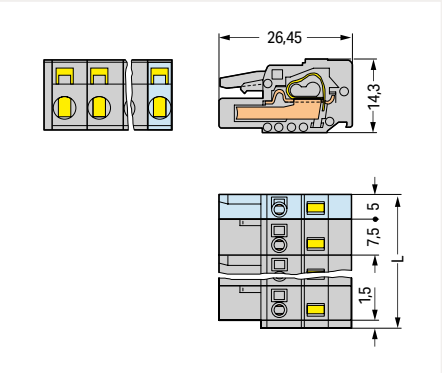
231-206/026-000

231-206/037-000

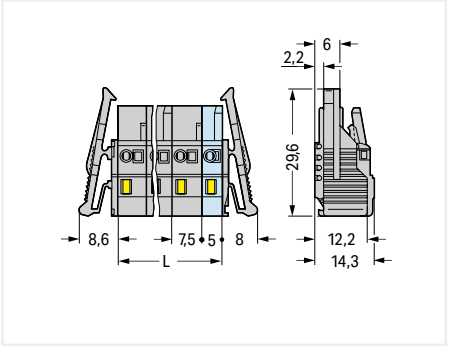
Pole No.	Item No.	PU
2	231-202/026-000	100
3	231-203/026-000	100
4	231-204/026-000	50
5	231-205/026-000	50
6	231-206/026-000	50
7	231-207/026-000	50
8	231-208/026-000	25
9	231-209/026-000	25
10	231-210/026-000	25
11	231-211/026-000	25
12	231-212/026-000	25
13	231-213/026-000	10
16	231-216/026-000	10

Pole No.	Item No.	PU
2	231-202/037-000	50
3	231-203/037-000	50
4	231-204/037-000	50
5	231-205/037-000	50
6	231-206/037-000	25
7	231-207/037-000	25
8	231-208/037-000	25
9	231-209/037-000	25
10	231-210/037-000	25
11	231-211/037-000	10
12	231-212/037-000	10
13	231-213/037-000	10
16	231-216/037-000	10

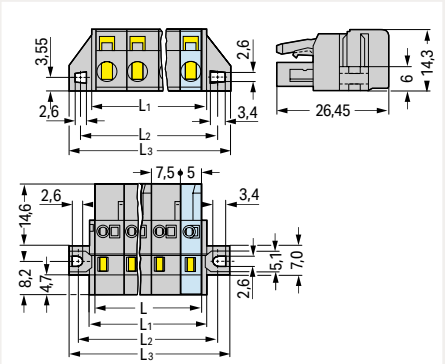
Pole No.	Item No.	PU
2	231-202/031-000	50
3	231-203/031-000	50
4	231-204/031-000	50
5	231-205/031-000	50
6	231-206/031-000	25
7	231-207/031-000	25
8	231-208/031-000	25
9	231-209/031-000	25
10	231-210/031-000	25
11	231-211/031-000	10
12	231-212/031-000	10
13	231-213/031-000	10
16	231-216/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

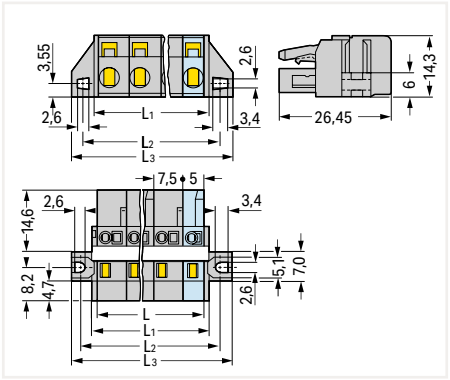
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strips

231-206/027-000

Pole No.	Item No.	PU
6	231-206/027-000	25
7	231-207/027-000	25
8	231-208/027-000	25
9	231-209/027-000	25
10	231-210/027-000	25
11	231-211/027-000	10
12	231-212/027-000	10
13	231-213/027-000	10
16	231-216/027-000	10

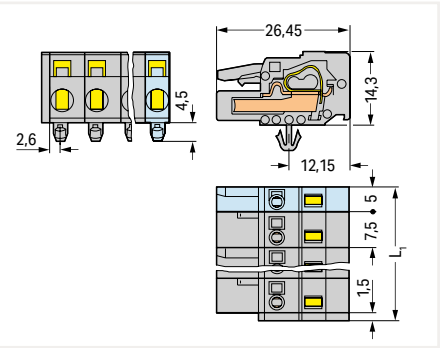


L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

231-206/008-000

Pole No.	Item No.	PU
2	231-202/008-000	100
3	231-203/008-000	100
4	231-204/008-000	50
5	231-205/008-000	50
6	231-206/008-000	50
7	231-207/008-000	50
8	231-208/008-000	25
9	231-209/008-000	25
10	231-210/008-000	25
11	231-211/008-000	25
12	231-212/008-000	25
13	231-213/008-000	10
16	231-216/008-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

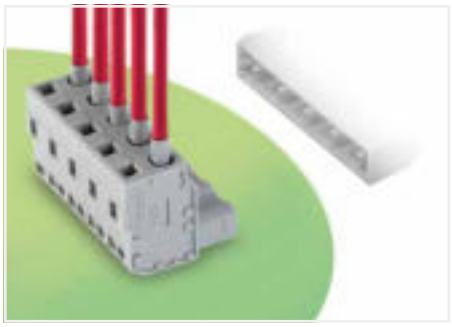
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

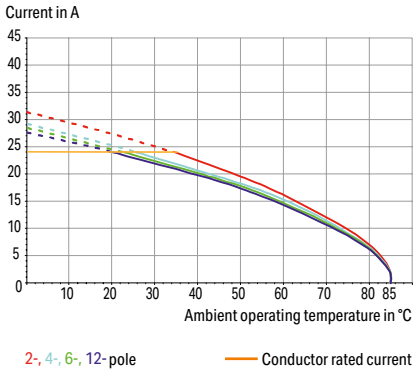
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 732 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 270 ° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-832/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 731
Test and measurement	Page 725, 886
Tool	Page 538
Direct marking	Page 734

See technical section for further information

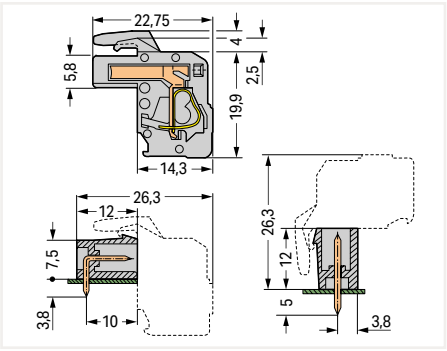
For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 732 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 270 ° ▸ Color: gray

732-106/026-000

Pole No.	Item No.	PU
2	732-102/026-000	100
3	732-103/026-000	100
4	732-104/026-000	50
5	732-105/026-000	25
6	732-106/026-000	50
7	732-107/026-000	50
8	732-108/026-000	25
9	732-109/026-000	25
10	732-110/026-000	25
11	732-111/026-000	25
12	732-112/026-000	25
16	732-116/026-000	10



Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm + 0.9 mm

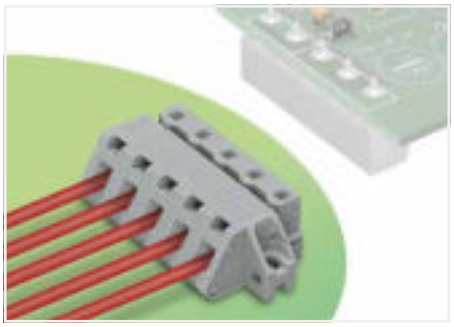
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

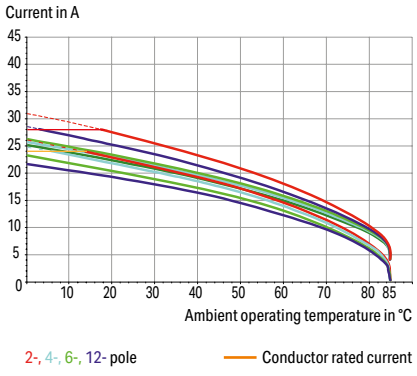
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90 ° ▸ Color: gray



- Universal connection for all conductor types
- Available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-35 rail mounted
- Easy conductor termination, even when halves are mated

Derating Curve
1-conductor female connector (731-532/031-000) with THT male header (231-232/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	7 … 8 mm / 0.28 … 0.31 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Marking	Page 865
Mounting	Page 732, 869
Strain relief	Page 731
Test and measurement	Page 725
Tool	Page 538, 870
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90 ° ▸ Color: gray

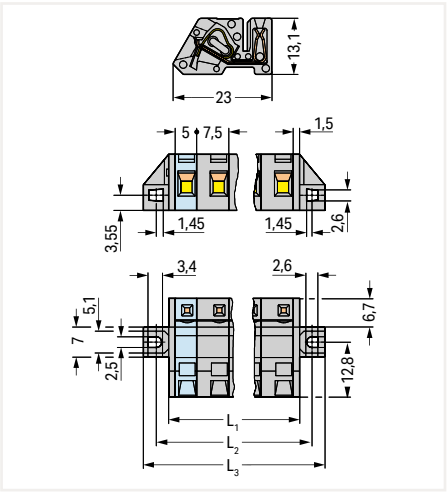
Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

731-535/031-000

Angled female connector –
used as through-panel connector; termination ports and operating slots are located outside the housing – panel thickness up to 2 mm.

Angled female connector –
a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.

Pole No.	Item No.	PU
2	731-532/031-000	50
3	731-533/031-000	50
4	731-534/031-000	50
5	731-535/031-000	25
6	731-536/031-000	25
7	731-537/031-000	25
8	731-538/031-000	25
9	731-539/031-000	25
10	731-540/031-000	25
11	731-541/031-000	10
12	731-542/031-000	10
13	731-543/031-000	10
16	731-546/031-000	10



L_1 = (pole no. – 1) x pin spacing + 5 mm + 3 mm
L_2 = (pole no. – 1) x pin spacing + 5 mm + 8.8 mm
L_3 = (pole no. – 1) x pin spacing + 5 mm + 14.8 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▶ *MCS* MIDI Classic ▶ 731 Series

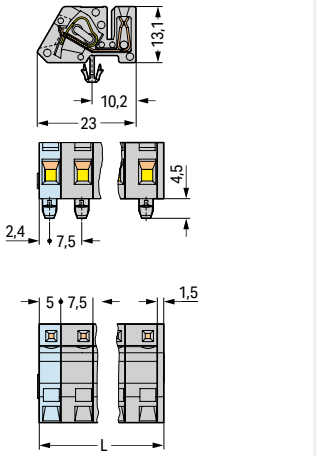
Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 90 ° ▶ Color: gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot

731-535/008-000

Angled female connector with DIN-35 rail-mount adapter (209-120)

Pole No.	Item No.	PU
2	731-532/008-000	100
3	731-533/008-000	100
4	731-534/008-000	50
5	731-535/008-000	50
6	731-536/008-000	50
7	731-537/008-000	50
8	731-538/008-000	25
9	731-539/008-000	25
10	731-540/008-000	25
11	731-541/008-000	25
12	731-542/008-000	25
13	731-543/008-000	10
16	731-546/008-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

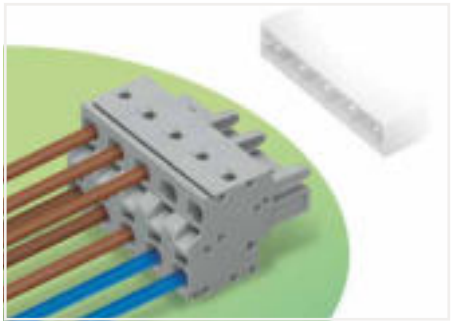
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

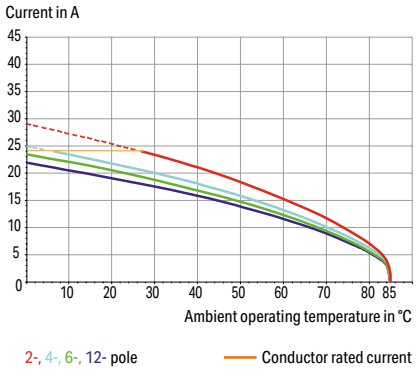
2-conductor female connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

Derating Curve
2-conductor female connector (231-2202/026-000) with THT male header (231-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 729
Test and measurement	Page 725, 886
Tool	Page 870
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

2-conductor female connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

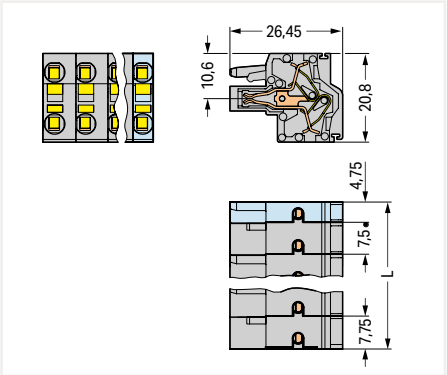
Locking of plug-in connection: Locking lever

231-2206/026-000

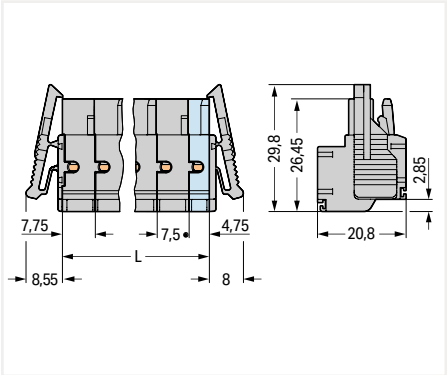
231-2206/037-000

Pole No.	Item No.	PU
2	231-2202/026-000	100
3	231-2203/026-000	100
4	231-2204/026-000	50
5	231-2205/026-000	50
6	231-2206/026-000	50
7	231-2207/026-000	50
8	231-2208/026-000	25
9	231-2209/026-000	25
10	231-2210/026-000	25
11	231-2211/026-000	25
12	231-2212/026-000	25

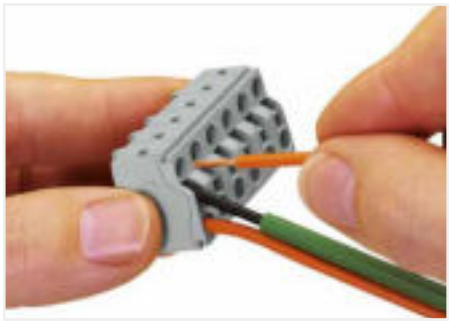
Pole No.	Item No.	PU
2	231-2202/037-000	50
3	231-2203/037-000	50
4	231-2204/037-000	50
5	231-2205/037-000	50
6	231-2206/037-000	25
7	231-2207/037-000	25
8	231-2208/037-000	25
9	231-2209/037-000	25
10	231-2210/037-000	25
11	231-2211/037-000	10
12	231-2212/037-000	10



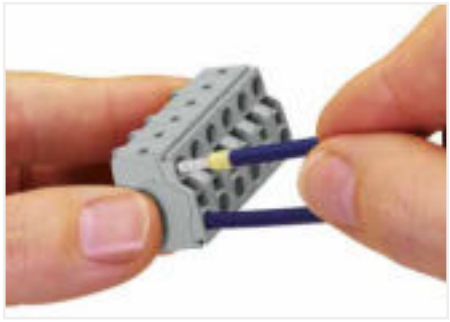
L = (pole no. – 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

9

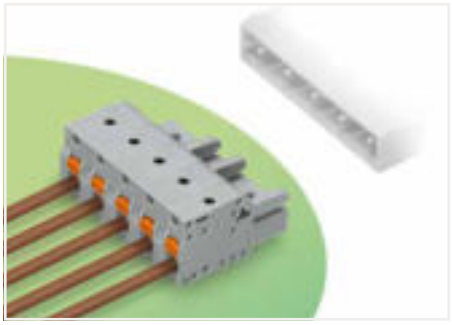
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

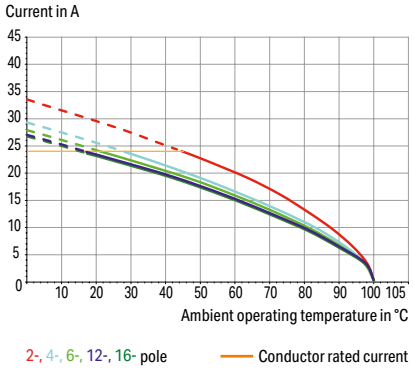
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- Coding option available

Derating Curve
1-conductor female connector (2231-202/026-000) with THT male header (231-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732
Strain relief	Page 729
Test and measurement	Page 725, 886
Tool	Page 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

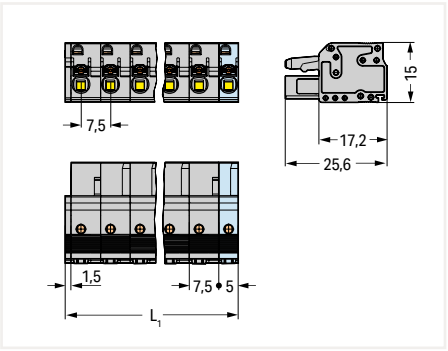
Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

	Locking of plug-in connection: Locking lever	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange
2231-206/026-000	2231-206/037-000	2231-206/031-000

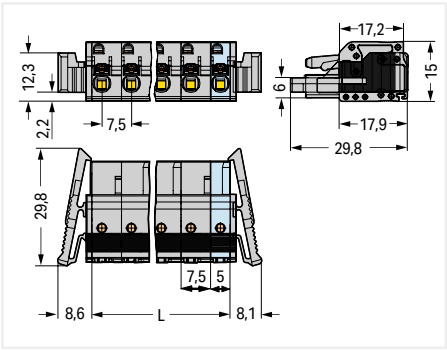
Pole No.	Item No.	PU
2	2231-202/026-000	100
3	2231-203/026-000	100
4	2231-204/026-000	50
5	2231-205/026-000	50
6	2231-206/026-000	50
7	2231-207/026-000	50
8	2231-208/026-000	25
9	2231-209/026-000	25
10	2231-210/026-000	25
11	2231-211/026-000	25
12	2231-212/026-000	25
13	2231-213/026-000	10
16	2231-216/026-000	10

Pole No.	Item No.	PU
2	2231-202/037-000	50
3	2231-203/037-000	50
4	2231-204/037-000	50
5	2231-205/037-000	50
6	2231-206/037-000	25
7	2231-207/037-000	25
8	2231-208/037-000	25
9	2231-209/037-000	25
10	2231-210/037-000	25
11	2231-211/037-000	10
12	2231-212/037-000	10
13	2231-213/037-000	10
16	2231-216/037-000	10

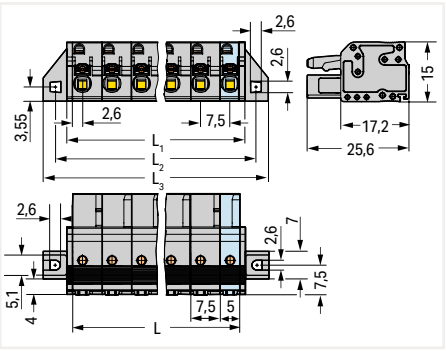
Pole No.	Item No.	PU
2	2231-202/031-000	50
3	2231-203/031-000	50
4	2231-204/031-000	50
5	2231-205/031-000	50
6	2231-206/031-000	25
7	2231-207/031-000	25
8	2231-208/031-000	25
9	2231-209/031-000	25
10	2231-210/031-000	25
11	2231-211/031-000	10
12	2231-212/031-000	10
13	2231-213/031-000	10
16	2231-216/031-000	10



L_1 = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Gold-plated or partially gold-plated contact surfaces

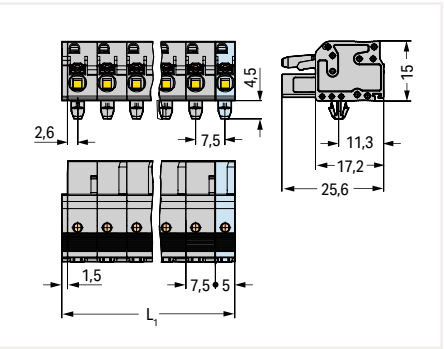
1-conductor female plug ▶ *MCS* MIDI Classic ▶ 2231 Series

Pin spacing: 7.5 mm / 0.295 inch ▶ Actuation type: Push-button ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0 ° ▶ Color: gray

Mounting type: Panel mounting ▶ Mounting type: Snap-in foot

2231-206/008-000

Pole No.	Item No.	PU
2	2231-202/008-000	100
3	2231-203/008-000	100
4	2231-204/008-000	50
5	2231-205/008-000	50
6	2231-206/008-000	50
7	2231-207/008-000	50
8	2231-208/008-000	25
9	2231-209/008-000	25
10	2231-210/008-000	25
11	2231-211/008-000	25
12	2231-212/008-000	25
13	2231-213/008-000	10
16	2231-216/008-000	10



L_1 = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

9

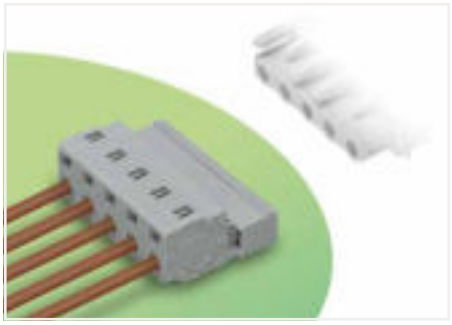
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

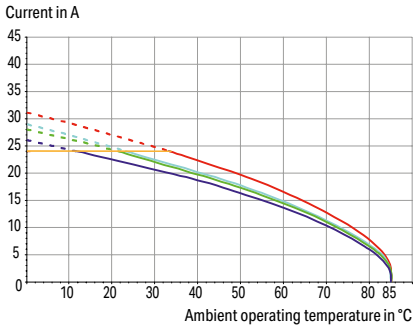
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 731
Tool	Page 538, 870
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 731 Series

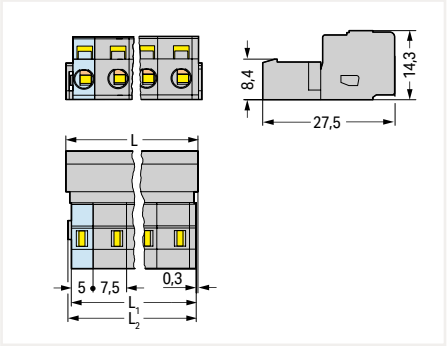
Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

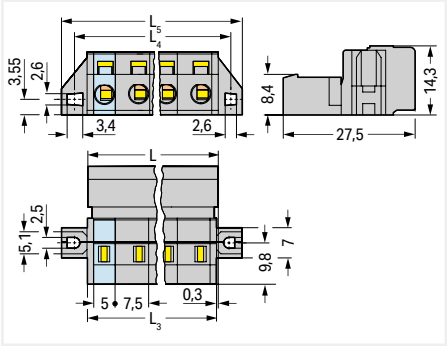
731-606/019-000

Pole No.	Item No.	PU
2	731-602	100
3	731-603	100
4	731-604	50
5	731-605	50
6	731-606	50
7	731-607	50
8	731-608	25
9	731-609	25
10	731-610	25
11	731-611	25
12	731-612	25
13	731-613	10
16	731-616	10

Pole No.	Item No.	PU
2	731-602/019-000	50
3	731-603/019-000	50
4	731-604/019-000	50
5	731-605/019-000	50
6	731-606/019-000	25
7	731-607/019-000	25
8	731-608/019-000	25
9	731-609/019-000	25
10	731-610/019-000	25
11	731-611/019-000	10
12	731-612/019-000	10
13	731-613/019-000	10
16	731-616/019-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 5.8 mm
L_5 = L_3 + 11.8 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 731 Series

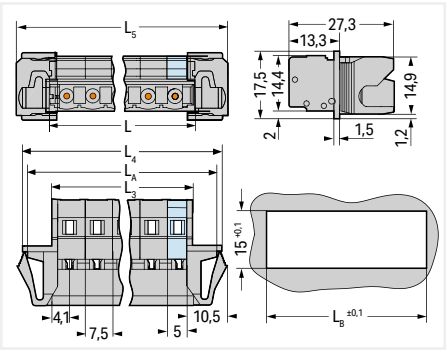
Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Mounting type: Feed-through mounting ▸ Mounting type: Snap-in

731-606/114-000

Male connector, with snap-in flanges, for feedthrough applications, for 0.5 … 2.5 mm plate thickness

Pole No.	Item No.	PU
2	731-602/114-000	50
3	731-603/114-000	50
4	731-604/114-000	50
5	731-605/114-000	25
6	731-606/114-000	25
7	731-607/114-000	25
8	731-608/114-000	25
9	731-609/114-000	25
10	731-610/114-000	10
11	731-611/114-000	10
12	731-612/114-000	10
13	731-613/114-000	10
16	731-616/114-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

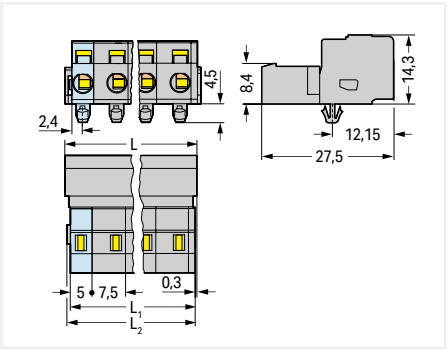
1-conductor male connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: gray

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

731-606/018-000

Pole No.	Item No.	PU
2	731-602/018-000	100
3	731-603/018-000	100
4	731-604/018-000	50
5	731-605/018-000	50
6	731-606/018-000	50
7	731-607/018-000	50
8	731-608/018-000	25
9	731-609/018-000	25
10	731-610/018-000	25
11	731-611/018-000	25
12	731-612/018-000	25
13	731-613/018-000	10
16	731-616/018-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

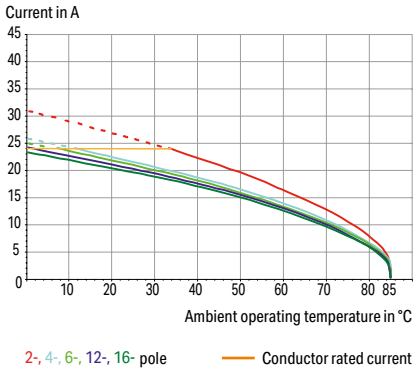
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

Derating Curve
THT female header (232-832) with
1-conductor male connector (731-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 869
Test and measurement	Page 725, 886
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Mating direction to the PCB: 0 °

Mating direction to the PCB: 90 °

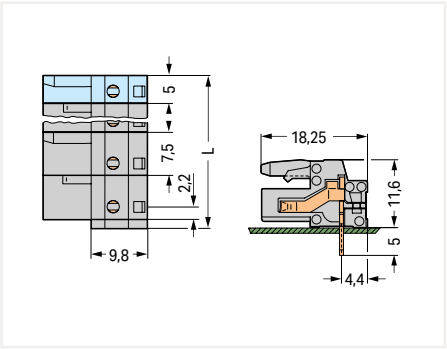
Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

232-836/039-000

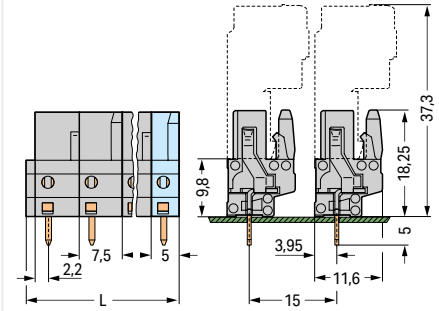
Pole No.	Item No.	PU
2	232-832	100
3	232-833	100
4	232-834	50
5	232-835	50
6	232-836	50
7	232-837	50
8	232-838	25
9	232-839	25
10	232-840	25
11	232-841	25
12	232-842	25
13	232-843	10
16	232-846	10

Pole No.	Item No.	PU
2	232-732	100
3	232-733	100
4	232-734	50
5	232-735	50
6	232-736	50
7	232-737	50
8	232-738	25
9	232-739	25
10	232-740	25
11	232-741	25
12	232-742	25
13	232-743	10
16	232-746	10

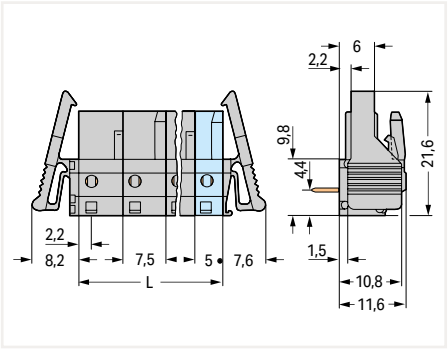
Pole No.	Item No.	PU
2	232-832/039-000	50
3	232-833/039-000	50
4	232-834/039-000	50
5	232-835/039-000	50
6	232-836/039-000	25
7	232-837/039-000	25
8	232-838/039-000	25
9	232-839/039-000	25
10	232-840/039-000	25
11	232-841/039-000	10
12	232-842/039-000	10
13	232-843/039-000	10
16	232-846/039-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

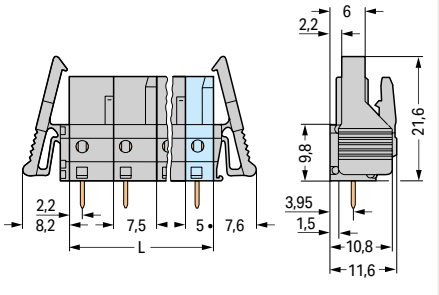
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

232-736/039-000

Pole No.	Item No.	PU
2	232-732/039-000	50
3	232-733/039-000	50
4	232-734/039-000	50
5	232-735/039-000	50
6	232-736/039-000	25
7	232-737/039-000	25
8	232-738/039-000	25
9	232-739/039-000	25
10	232-740/039-000	25
11	232-741/039-000	10
12	232-742/039-000	10
13	232-743/039-000	10
16	232-746/039-000	10



L = (pole no. – 1) x pin spacing + 5 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

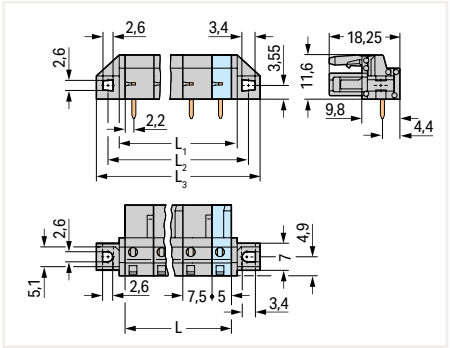
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

232-836/031-000

Pole No.	Item No.	PU
2	232-832/031-000	50
3	232-833/031-000	50
4	232-834/031-000	50
5	232-835/031-000	50
6	232-836/031-000	25
7	232-837/031-000	25
8	232-838/031-000	25
9	232-839/031-000	25
10	232-840/031-000	25
11	232-841/031-000	10
12	232-842/031-000	10
13	232-843/031-000	10
16	232-846/031-000	10

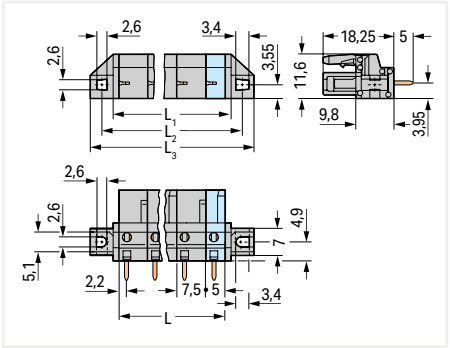


L = (pole no. – 1) x pin spacing + 5 mm
L1 = L + 3 mm
L2 = L + 8.8 mm
L3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-736/031-000

Pole No.	Item No.	PU
2	232-732/031-000	50
3	232-733/031-000	50
4	232-734/031-000	50
5	232-735/031-000	50
6	232-736/031-000	25
7	232-737/031-000	25
8	232-738/031-000	25
9	232-739/031-000	25
10	232-740/031-000	25
11	232-741/031-000	10
12	232-742/031-000	25
13	232-743/031-000	10
16	232-746/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L1 = L + 3 mm
L2 = L + 8.8 mm
L3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

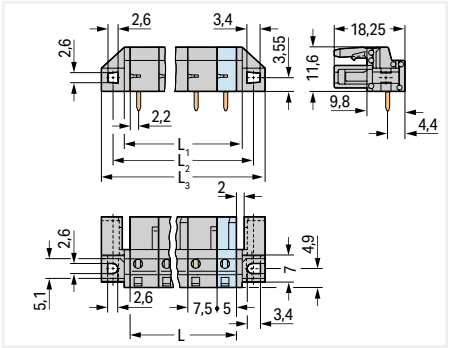
Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Mounting type: Flush feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

232-836/047-000

Pole No.	Item No.	PU
2	232-832/047-000	50
3	232-833/047-000	50
4	232-834/047-000	50
5	232-835/047-000	50
6	232-836/047-000	25
7	232-837/047-000	25
8	232-838/047-000	25
9	232-839/047-000	25
10	232-840/047-000	25
11	232-841/047-000	10
12	232-842/047-000	10
13	232-843/047-000	10
16	232-846/047-000	10

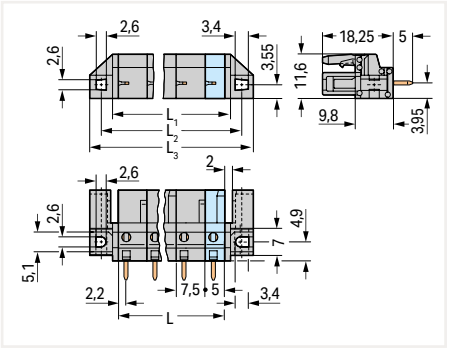


L = (pole no. – 1) x pin spacing + 5 mm
L1 = L + 3 mm
L2 = L + 8.8 mm
L3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-736/047-000

Pole No.	Item No.	PU
2	232-732/047-000	100
3	232-733/047-000	50
4	232-734/047-000	50
5	232-735/047-000	50
6	232-736/047-000	25
7	232-737/047-000	50
8	232-738/047-000	25
9	232-739/047-000	25
10	232-740/047-000	25
11	232-741/047-000	25
12	232-742/047-000	25
13	232-743/047-000	10
16	232-746/047-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L1 = L + 3 mm
L2 = L + 8.8 mm
L3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

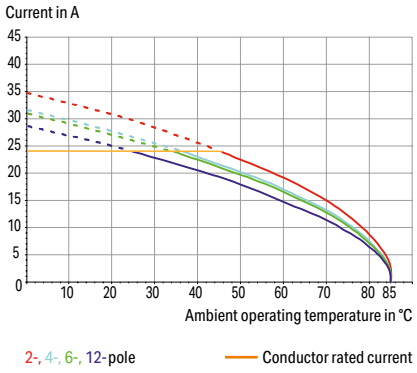
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Mounting	Page 869
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

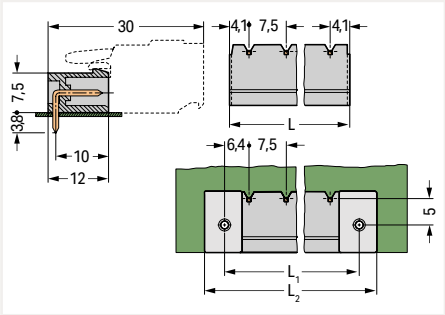
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-836/001-000

Pole No.	Item No.	PU
2	231-832/001-000	200
3	231-833/001-000	200
4	231-834/001-000	100
5	231-835/001-000	100
6	231-836/001-000	100
7	231-837/001-000	50
8	231-838/001-000	50
9	231-839/001-000	50
10	231-840/001-000	50
11	231-841/001-000	50
12	231-842/001-000	50
13	231-843/001-000	50
16	231-846/001-000	50

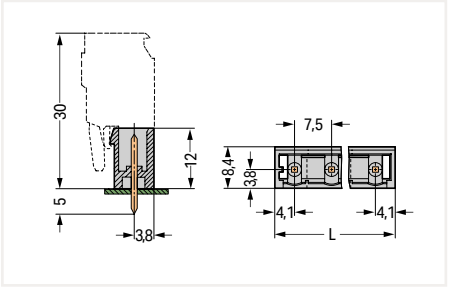


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-236/001-000

Pole No.	Item No.	PU
2	231-232/001-000	200
3	231-233/001-000	200
4	231-234/001-000	100
5	231-235/001-000	100
6	231-236/001-000	100
7	231-237/001-000	50
8	231-238/001-000	50
9	231-239/001-000	50
10	231-240/001-000	50
11	231-241/001-000	50
12	231-242/001-000	50
13	231-243/001-000	50
16	231-246/001-000	50

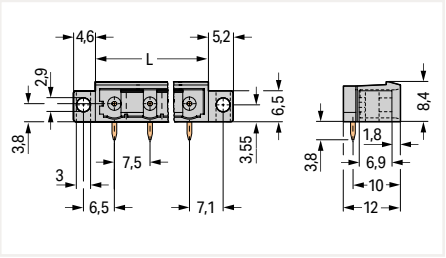


L = (pole no. – 1) x pin spacing + 8.2 mm

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-840/040-000

Pole No.	Item No.	PU
10	231-840/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

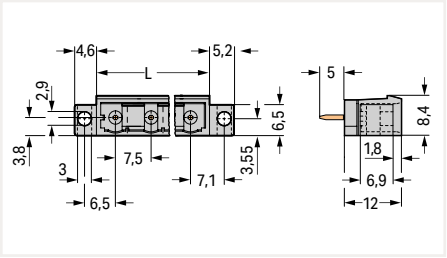
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-240/040-000

Pole No.	Item No.	PU
10	231-240/040-000	25



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

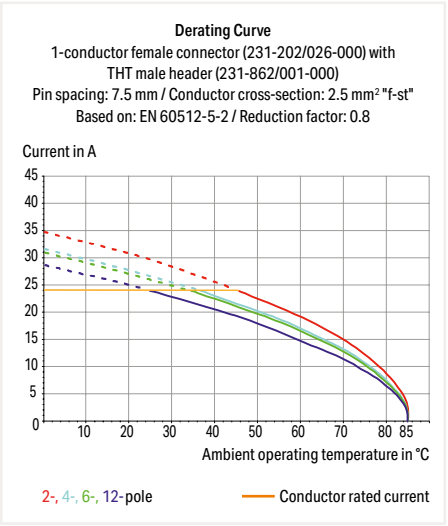
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

9

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Mounting	Page 869
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

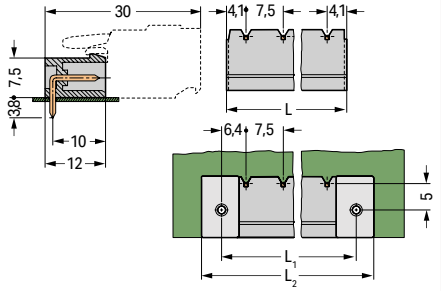
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-866/001-000

Pole No.	Item No.	PU
2	231-862/001-000	200
3	231-863/001-000	200
4	231-864/001-000	100
5	231-865/001-000	100
6	231-866/001-000	100
7	231-867/001-000	50
8	231-868/001-000	50
9	231-869/001-000	50
10	231-870/001-000	50
11	231-871/001-000	50
12	231-872/001-000	50
13	231-873/001-000	50
16	231-876/001-000	50

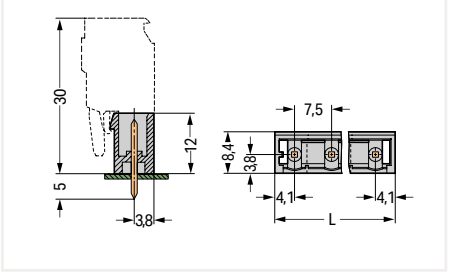


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-266/001-000

Pole No.	Item No.	PU
2	231-262/001-000	200
3	231-263/001-000	200
4	231-264/001-000	100
5	231-265/001-000	100
6	231-266/001-000	100
7	231-267/001-000	50
8	231-268/001-000	50
9	231-269/001-000	50
10	231-270/001-000	50
11	231-271/001-000	50
12	231-272/001-000	50
13	231-273/001-000	50
16	231-276/001-000	50

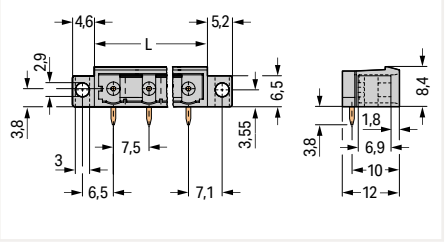


L = (pole no. – 1) x pin spacing + 8.2 mm

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-870/040-000

Pole No.	Item No.	PU
10	231-870/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

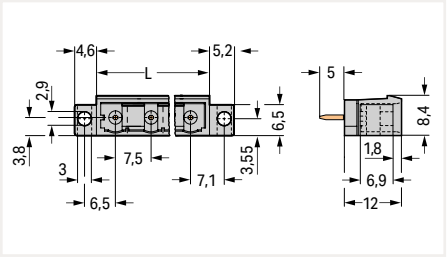
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-270/040-000

Pole No.	Item No.	PU
10	231-270/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

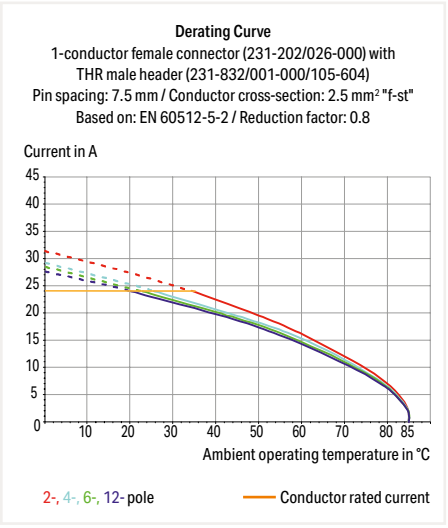
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	12 A	12 A	12 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per	UL 1977			
Rated voltage	600 V			
Rated current	10 A			
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering	Page 596
Coding	Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

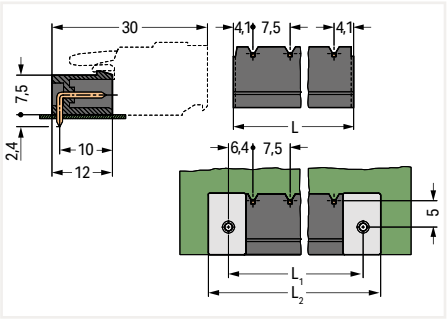
Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 0 °

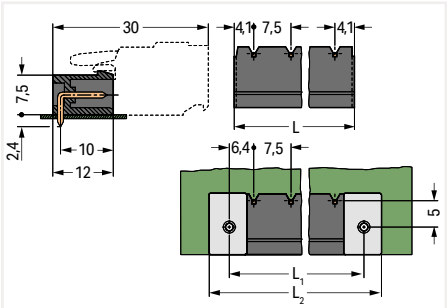
Suitable for automated assembly

Pole No.	Item No.	PU
2	231-832/001-000/105-604	200
3	231-833/001-000/105-604	200
4	231-834/001-000/105-604	100
5	231-835/001-000/105-604	100
6	231-836/001-000/105-604	100
7	231-837/001-000/105-604	50
8	231-838/001-000/105-604	50
9	231-839/001-000/105-604	50
10	231-840/001-000/105-604	50
11	231-841/001-000/105-604	50
12	231-842/001-000/105-604	50

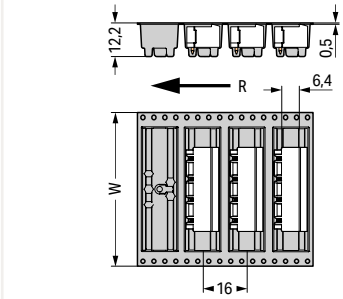
Pole No.	Tape width	Item No.	PU
2	32 mm	231-832/001-000/105-604/997-405	170
3	56 mm	231-833/001-000/105-604/997-407	170
4	56 mm	231-834/001-000/105-604/997-407	170
5	56 mm	231-835/001-000/105-604/997-407	170
6	88 mm	231-836/001-000/105-604/997-409	330
7	88 mm	231-837/001-000/105-604/997-409	330
8	88 mm	231-838/001-000/105-604/997-409	330
9	88 mm	231-839/001-000/105-604/997-409	330



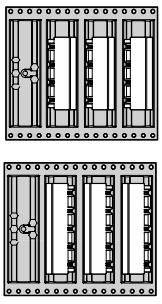
L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm



W = tape width
R = feed direction



Position with even number of poles

Position with odd number of poles

Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

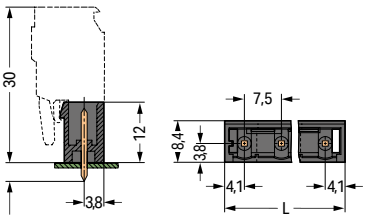
Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 90 °

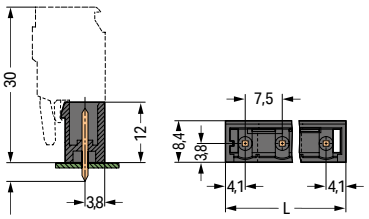
Suitable for automated assembly

Pole No.	Item No.	PU
2	231-232/001-000/105-604	200
3	231-233/001-000/105-604	200
4	231-234/001-000/105-604	100
5	231-235/001-000/105-604	100
6	231-236/001-000/105-604	100
7	231-237/001-000/105-604	50
8	231-238/001-000/105-604	50
9	231-239/001-000/105-604	50
10	231-240/001-000/105-604	50
11	231-241/001-000/105-604	50
12	231-242/001-000/105-604	50

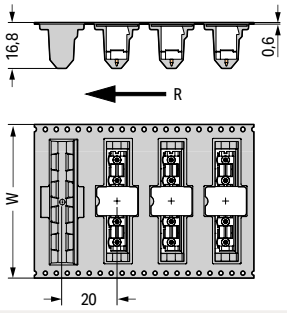
Pole No.	Tape width	Item No.	PU
2	32 mm	231-232/001-000/105-604/997-405	170
3	56 mm	231-233/001-000/105-604/997-407	170
4	56 mm	231-234/001-000/105-604/997-407	170
5	56 mm	231-235/001-000/105-604/997-407	170
6	88 mm	231-236/001-000/105-604/997-409	170
7	88 mm	231-237/001-000/105-604/997-409	170
8	88 mm	231-238/001-000/105-604/997-409	170
9	88 mm	231-239/001-000/105-604/997-409	170



L = (pole no. – 1) x pin spacing + 8.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm



W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

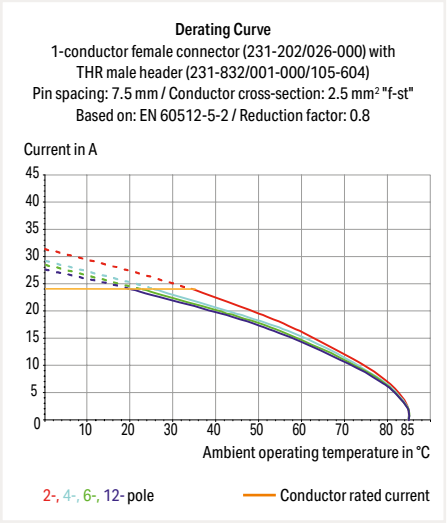
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	16 A	16 A	16 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approbations per	UL 1977			
Rated voltage	600 V			
Rated current	15 A			
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 1.2 mm
Plated through-hole diameter (THR)	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR soldering	Page 596
Coding	Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

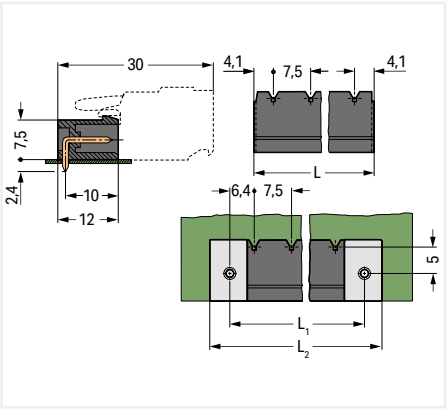
Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

Mating direction to the PCB: 0 °

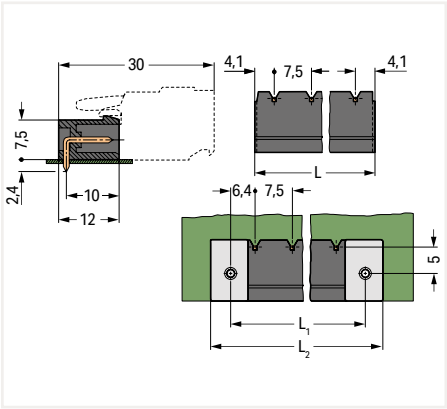
Suitable for automated assembly

Pole No.	Item No.	PU
2	231-862/001-000/105-604	200
3	231-863/001-000/105-604	200
4	231-864/001-000/105-604	100
5	231-865/001-000/105-604	100
6	231-866/001-000/105-604	100
7	231-867/001-000/105-604	50
8	231-868/001-000/105-604	50
9	231-869/001-000/105-604	50
10	231-870/001-000/105-604	50
11	231-871/001-000/105-604	50
12	231-872/001-000/105-604	50

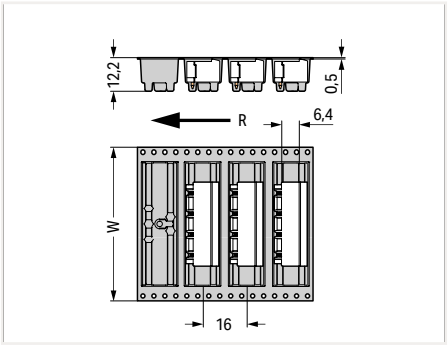
Pole No.	Tape width	Item No.	PU
2	32 mm	231-862/001-000/105-604/997-405	170
3	56 mm	231-863/001-000/105-604/997-407	170
4	56 mm	231-864/001-000/105-604/997-407	170
5	56 mm	231-865/001-000/105-604/997-407	170
6	88 mm	231-866/001-000/105-604/997-409	330
7	88 mm	231-867/001-000/105-604/997-409	330
8	88 mm	231-868/001-000/105-604/997-409	330
9	88 mm	231-869/001-000/105-604/997-409	330



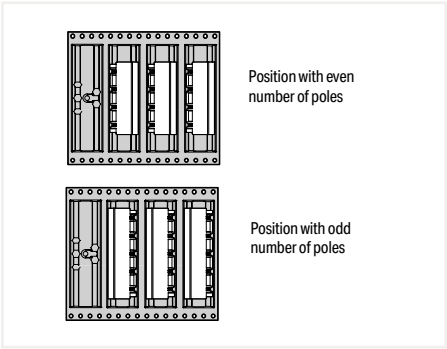
L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm



W = tape width
R = feed direction



Pin position in tape-and-reel packaging

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR male header ▸ *MCS* MIDI Classic ▸ 231 Series

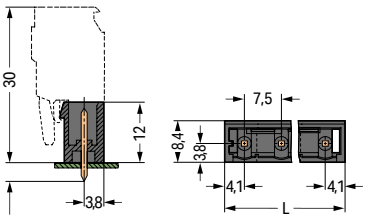
Pin spacing: 7.5 mm / 0.295 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

Mating direction to the PCB: 90 °

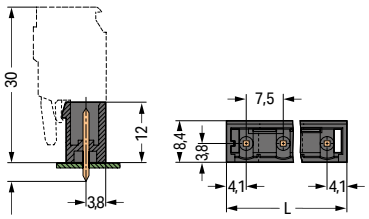
Suitable for automated assembly

Pole No.	Item No.	PU
2	231-262/001-000/105-604	200
3	231-263/001-000/105-604	200
4	231-264/001-000/105-604	100
5	231-265/001-000/105-604	100
6	231-266/001-000/105-604	50
7	231-267/001-000/105-604	50
8	231-268/001-000/105-604	50
9	231-269/001-000/105-604	50
10	231-270/001-000/105-604	50
11	231-271/001-000/105-604	50
12	231-272/001-000/105-604	50

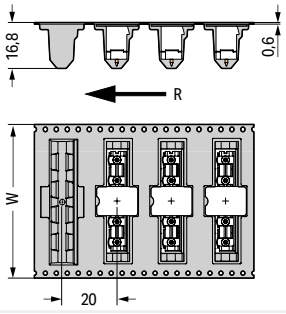
Pole No.	Tape width	Item No.	PU
2	32 mm	231-262/001-000/105-604/997-405	170
3	56 mm	231-263/001-000/105-604/997-407	170
4	56 mm	231-264/001-000/105-604/997-407	170
5	56 mm	231-265/001-000/105-604/997-407	170
6	88 mm	231-266/001-000/105-604/997-409	170
7	88 mm	231-267/001-000/105-604/997-409	170
8	88 mm	231-268/001-000/105-604/997-409	170
9	88 mm	231-269/001-000/105-604/997-409	170



L = (pole no. – 1) x pin spacing + 8.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm



W = tape width
R = feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

Double pin header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 7.5 mm / 0.295 inch ▸ Mounting type: DIN-35 rail ▸ Color: gray

- Allow *MCS* Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

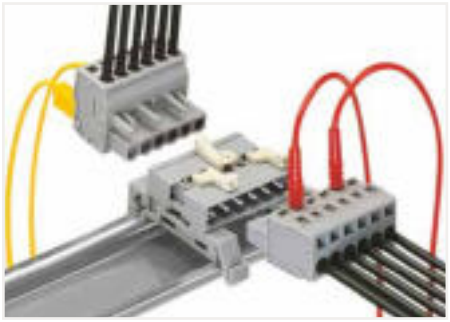
DIN-rail Page 868

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

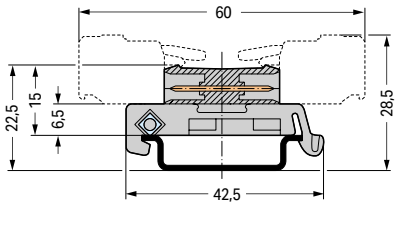
Double pin header ▶ *MCS* MIDI Classic ▶ 232 Series
Pin spacing: 7.5 mm / 0.295 inch ▶ Mounting type: DIN-35 rail ▶ Color: gray

232-566/007-000



Angled female connector – straight female connector

Pole No.	Item No.	PU
2	232-562/007-000	50
3	232-563/007-000	50
4	232-564/007-000	25
5	232-565/007-000	50
6	232-566/007-000	25
7	232-567/007-000	10
8	232-568/007-000	10
9	232-569/007-000	10
10	232-570/007-000	10
11	232-571/007-000	10
12	232-572/007-000	10



Total length = (pole no. – 1) x pin spacing + 8.2 mm

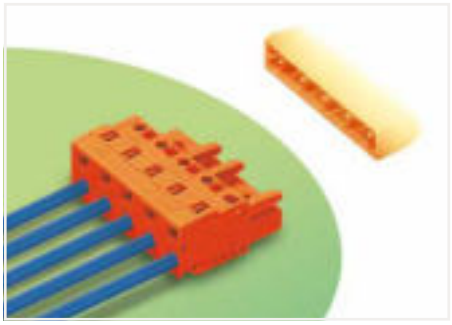
9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers

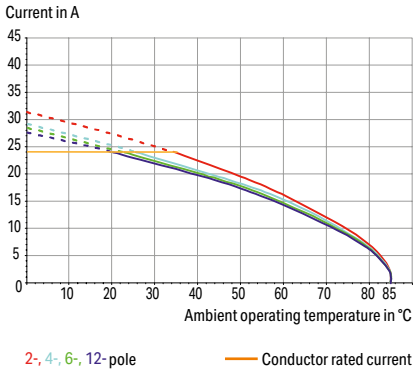
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-832/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 731
Test and measurement	Page 725, 886
Tool	Page 538, 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

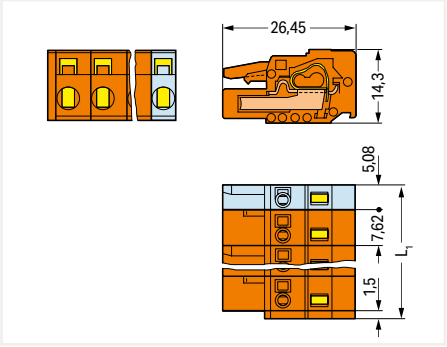
Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

	Locking of plug-in connection: Locking lever	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange
	231-706/037-000	231-706/031-000

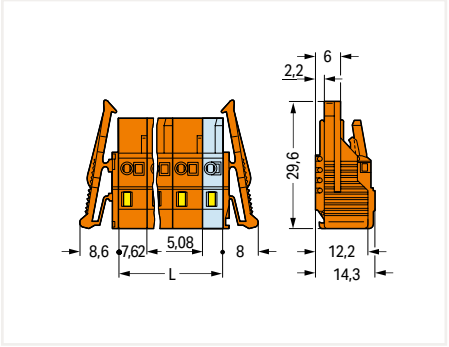
Pole No.	Item No.	PU
2	231-702/026-000	100
3	231-703/026-000	100
4	231-704/026-000	50
5	231-705/026-000	50
6	231-706/026-000	50
7	231-707/026-000	50
8	231-708/026-000	25
9	231-709/026-000	25
10	231-710/026-000	25
11	231-711/026-000	25
12	231-712/026-000	25

Pole No.	Item No.	PU
2	231-702/037-000	50
3	231-703/037-000	50
4	231-704/037-000	50
5	231-705/037-000	50
6	231-706/037-000	25
7	231-707/037-000	25
8	231-708/037-000	25
9	231-709/037-000	25
10	231-710/037-000	25
11	231-711/037-000	10
12	231-712/037-000	10

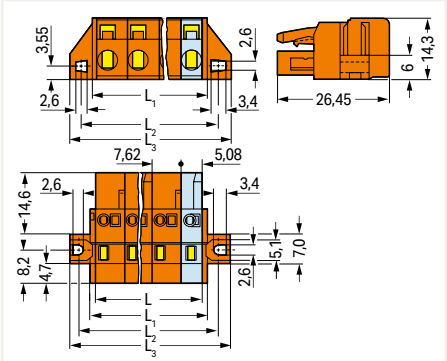
Pole No.	Item No.	PU
2	231-702/031-000	50
3	231-703/031-000	50
4	231-704/031-000	50
5	231-705/031-000	50
6	231-706/031-000	25
7	231-707/031-000	25
8	231-708/031-000	25
9	231-709/031-000	25
10	231-710/031-000	25
11	231-711/031-000	10
12	231-712/031-000	10



L_1 = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

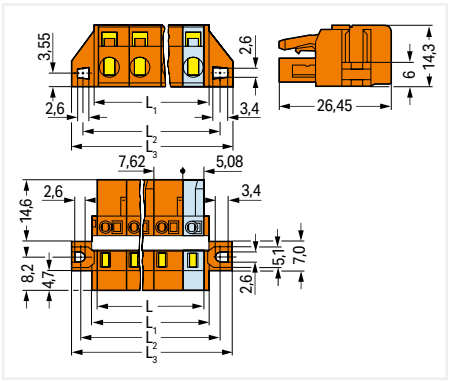
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strips

231-706/027-000

Pole No.	Item No.	PU
6	231-706/027-000	25
7	231-707/027-000	25
8	231-708/027-000	25
9	231-709/027-000	25
10	231-710/027-000	25
11	231-711/027-000	10
12	231-712/027-000	10

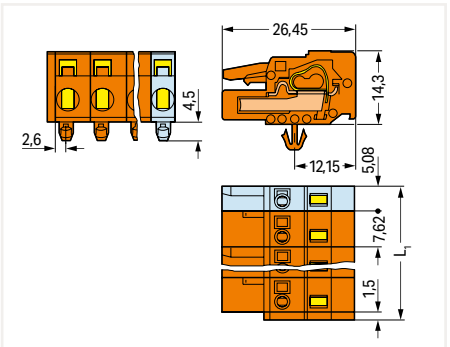


L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

231-706/008-000

Pole No.	Item No.	PU
2	231-702/008-000	100
3	231-703/008-000	100
4	231-704/008-000	50
5	231-705/008-000	50
6	231-706/008-000	50
7	231-707/008-000	50
8	231-708/008-000	25
9	231-709/008-000	25
10	231-710/008-000	25
11	231-711/008-000	25
12	231-712/008-000	25



L_1 = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

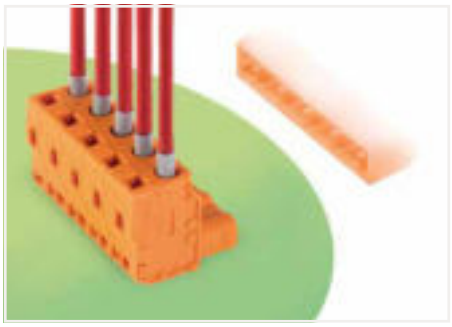
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

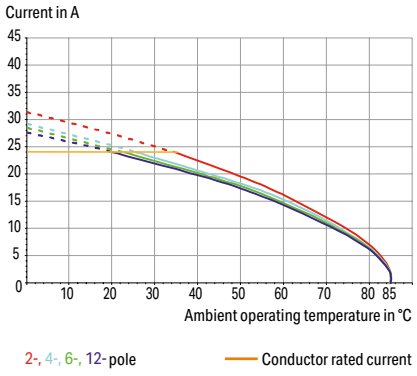
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 732 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 270 ° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-832/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	14 A	14 A	14 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 731
Test and measurement	Page 725, 886
Tool	Page 538
Direct marking	Page 734

See technical section for further information

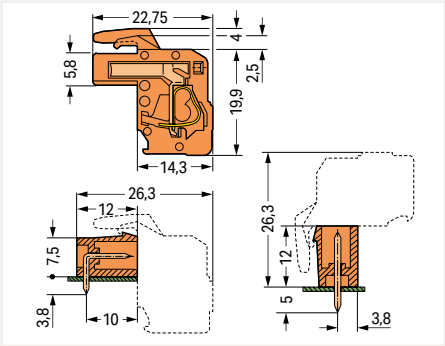
For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▶ *MCS* MIDI Classic ▶ 732 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ CAGE CLAMP® ▶ Conductor entry direction to mating direction: 270 ° ▶ Color: orange

732-126/026-000

Pole No.	Item No.	PU
2	732-122/026-000	100
3	732-123/026-000	100
4	732-124/026-000	50
5	732-125/026-000	50
6	732-126/026-000	50
7	732-127/026-000	50
8	732-128/026-000	25
9	732-129/026-000	25
10	732-130/026-000	25
11	732-131/026-000	25
12	732-132/026-000	25



Total length = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm + 0.9 mm

9

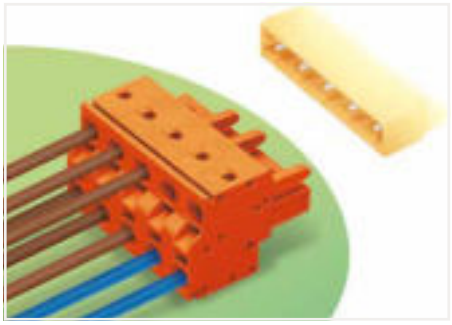
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

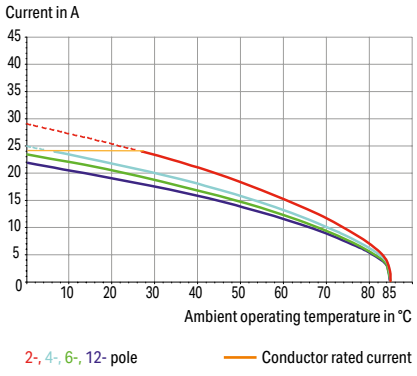
2-conductor female connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

Derating Curve
2-conductor female connector (231-2202/026-000) with THT male header (231-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	20 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Strain relief	Page 729
Test and measurement	Page 725
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

2-conductor female connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

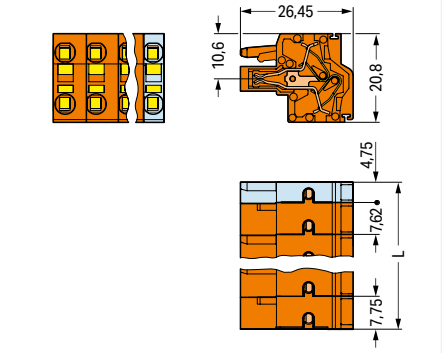
Locking of plug-in connection: Locking lever

231-2706/026-000

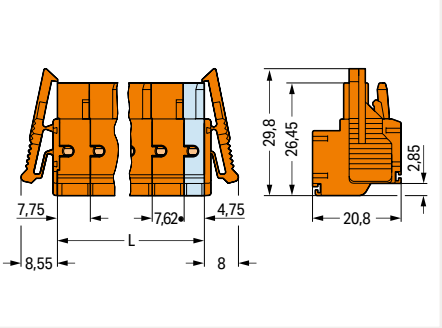
231-2706/037-000

Pole No.	Item No.	PU
2	231-2702/026-000	100
3	231-2703/026-000	100
4	231-2704/026-000	50
5	231-2705/026-000	50
6	231-2706/026-000	50
7	231-2707/026-000	50
8	231-2708/026-000	25
9	231-2709/026-000	25
10	231-2710/026-000	25
11	231-2711/026-000	25
12	231-2712/026-000	25

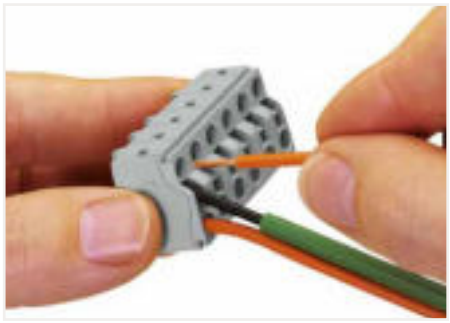
Pole No.	Item No.	PU
2	231-2702/037-000	50
3	231-2703/037-000	50
4	231-2704/037-000	50
5	231-2705/037-000	50
6	231-2706/037-000	25
7	231-2707/037-000	25
8	231-2708/037-000	25
9	231-2709/037-000	25
10	231-2710/037-000	25
11	231-2711/037-000	10
12	231-2712/037-000	10



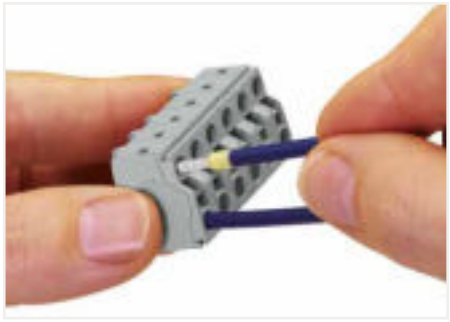
L = (pole no. – 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

9

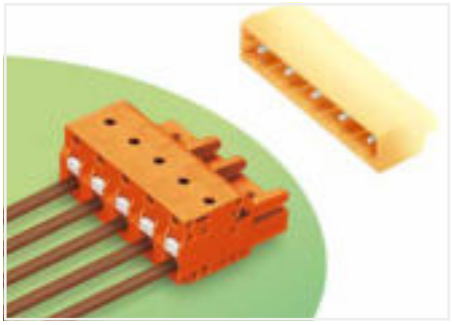
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Gold-plated or partially gold-plated contact surfaces

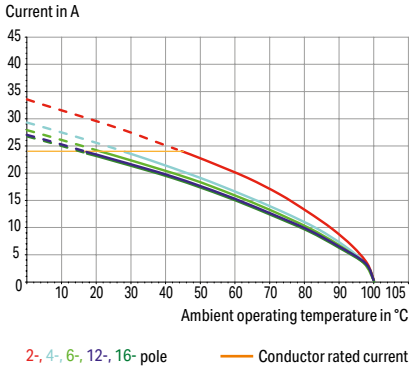
1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- Coding option available

Derating Curve
1-conductor female connector (2231-202/026-000) with THT male header (231-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732
Strain relief	Page 729
Test and measurement	Page 725, 886
Tool	Page 870
Direct marking	Page 734
Cutout dimensions	Page 738

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

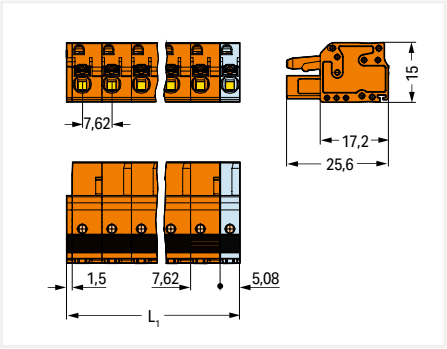
Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

	Locking of plug-in connection: Locking lever	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange
2231-706/026-000	2231-706/037-000	2231-706/031-000

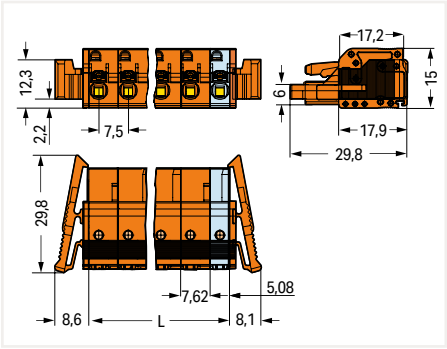
Pole No.	Item No.	PU
2	2231-702/026-000	100
3	2231-703/026-000	100
4	2231-704/026-000	50
5	2231-705/026-000	50
6	2231-706/026-000	50
7	2231-707/026-000	50
8	2231-708/026-000	25
9	2231-709/026-000	25
10	2231-710/026-000	25
11	2231-711/026-000	25
12	2231-712/026-000	25

Pole No.	Item No.	PU
2	2231-702/037-000	50
3	2231-703/037-000	50
4	2231-704/037-000	50
5	2231-705/037-000	50
6	2231-706/037-000	25
7	2231-707/037-000	25
8	2231-708/037-000	25
9	2231-709/037-000	25
10	2231-710/037-000	25
11	2231-711/037-000	10
12	2231-712/037-000	10

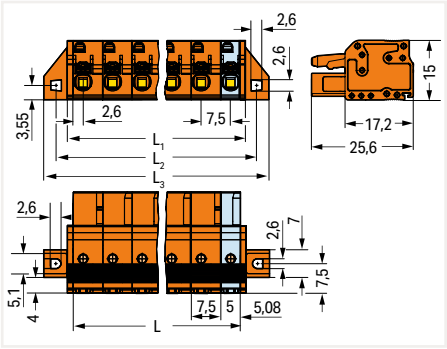
Pole No.	Item No.	PU
2	2231-702/031-000	50
3	2231-703/031-000	50
4	2231-704/031-000	50
5	2231-705/031-000	50
6	2231-706/031-000	25
7	2231-707/031-000	25
8	2231-708/031-000	25
9	2231-709/031-000	25
10	2231-710/031-000	25
11	2231-711/031-000	10
12	2231-712/031-000	10



L_1 = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

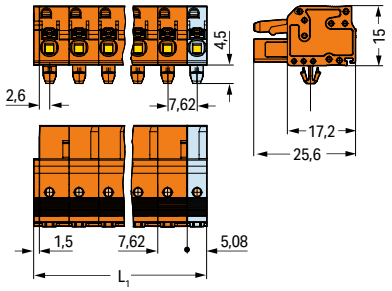
- Gold-plated or partially gold-plated contact surfaces

1-conductor female plug ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

Pole No.	Item No.	PU
2	2231-702/008-000	100
3	2231-703/008-000	100
4	2231-704/008-000	50
5	2231-705/008-000	50
6	2231-706/008-000	50
7	2231-707/008-000	50
8	2231-708/008-000	25
9	2231-709/008-000	25
10	2231-710/008-000	25
11	2231-711/008-000	25
12	2231-712/008-000	25



L_1 = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

9

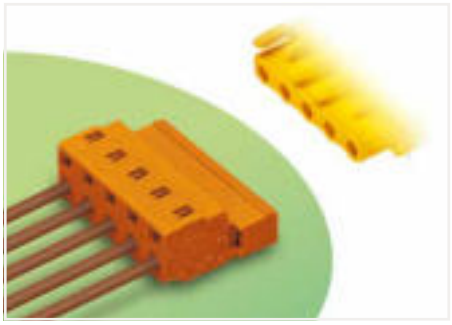
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

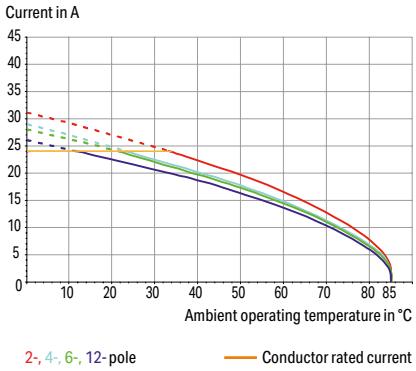
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers



Electrical Data

Montageart	Feed-through mounting;Panel mounting			Feed-through mounting		
Befestigungsart	Mounting flange;Snap-in;Snap-in foot			Snap-in		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	500 V	630 V	100 V
Rated impulse voltage	6 kV	6 kV	6 kV	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A	12 A	12 A	12 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A
Approbations per	UL 1977			UL 1977		
Rated voltage	600 V			600 V		
Rated current	15 A			15 A		
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 726
Ferrule	Page 879
General accessories	Page 727
Insulation stop	Page 727
Marking	Page 865
Mounting	Page 732, 869
Mounting adapter	Page 733
Strain relief	Page 731
Tool	Page 538, 870
Direct marking	Page 734

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

9

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

	Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

731-636

731-636/019-000

Pole No.	Item No.	PU
2	731-632	100
3	731-633	100
4	731-634	50
5	731-635	50
6	731-636	50
7	731-637	50
8	731-638	25
9	731-639	25
10	731-640	25
11	731-641	25
12	731-642	25

Pole No.	Item No.	PU
2	731-632/019-000	50
3	731-633/019-000	50
4	731-634/019-000	50
5	731-635/019-000	50
6	731-636/019-000	25
7	731-637/019-000	25
8	731-638/019-000	25
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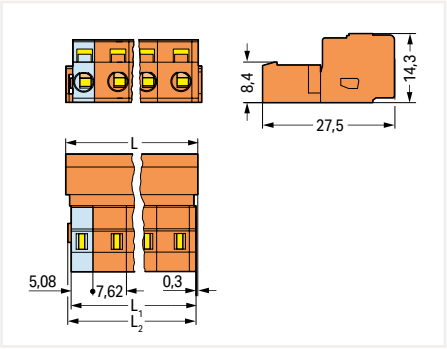
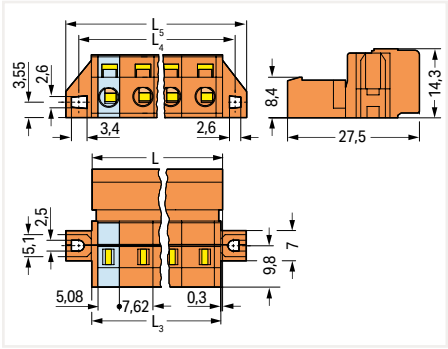
11	731-641/019-000	10
12	731-642/019-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 5.8 mm
L_5 = L_3 + 11.8 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-conductor male connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Mounting type: Feed-through mounting ▸ Mounting type: Snap-in

731-636/114-000

Male connector, with snap-in flanges, for feedthrough applications, for 0.5 … 2.5 mm plate thickness

Pole No.	Item No.	PU
2	731-632/114-000	50
3	731-633/114-000	50
4	731-634/114-000	50
5	731-635/114-000	25
6	731-636/114-000	25
7	731-637/114-000	25
8	731-638/114-000	25
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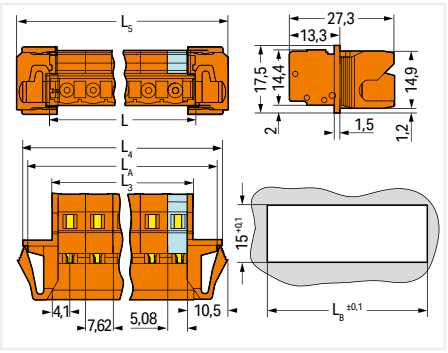
10	731-640/114-000	10
11	731-641/114-000	10
12	731-642/114-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

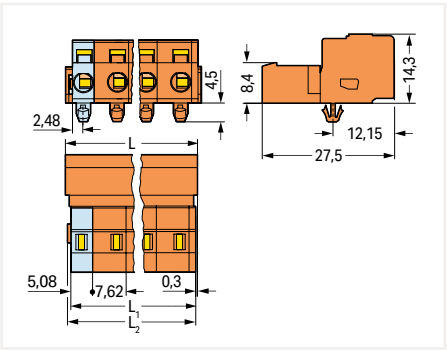
1-conductor male connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0 ° ▸ Color: orange

Mounting type: Panel mounting ▸ Mounting type: Snap-in foot

731-636/018-000

Pole No.	Item No.	PU
2	731-632/018-000	100
3	731-633/018-000	100
4	731-634/018-000	50
5	731-635/018-000	50
6	731-636/018-000	50
7	731-637/018-000	50
8	731-638/018-000	25
9	731-639/018-000	25
10	731-640/018-000	25
11	731-641/018-000	25
12	731-642/018-000	25



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

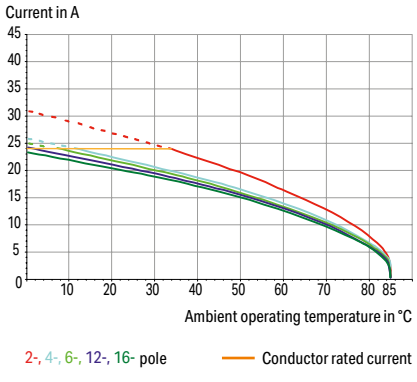
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

Derating Curve
THT female header (232-832) with
1-conductor male connector (731-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 869
Test and measurement	Page 725, 886
Cutout dimensions	Page 738
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Mating direction to the PCB: 0 °

Mating direction to the PCB: 90 °

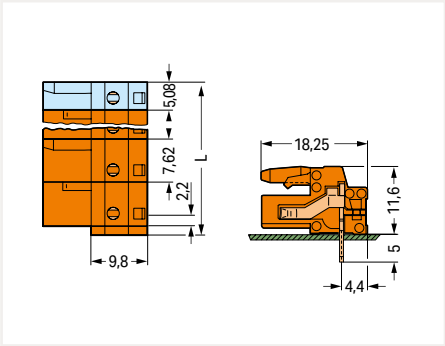
Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0 °

232-866/039-000

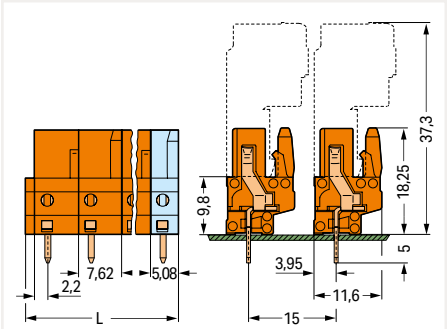
Pole No.	Item No.	PU
2	232-862	100
3	232-863	100
4	232-864	50
5	232-865	50
6	232-866	50
7	232-867	50
8	232-868	25
9	232-869	25
10	232-870	25
11	232-871	25
12	232-872	25

Pole No.	Item No.	PU
2	232-762	100
3	232-763	100
4	232-764	50
5	232-765	50
6	232-766	50
7	232-767	50
8	232-768	25
9	232-769	25
10	232-770	25
11	232-771	25
12	232-772	25

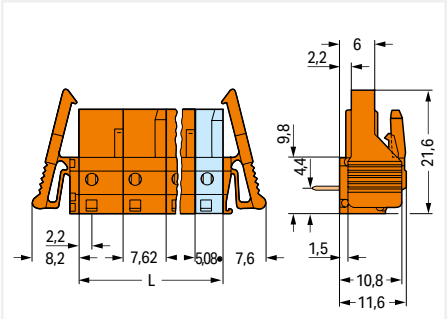
Pole No.	Item No.	PU
2	232-862/039-000	50
3	232-863/039-000	50
4	232-864/039-000	50
5	232-865/039-000	50
6	232-866/039-000	25
7	232-867/039-000	25
8	232-868/039-000	25
9	232-869/039-000	25
10	232-870/039-000	25
11	232-871/039-000	10
12	232-872/039-000	10



L = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

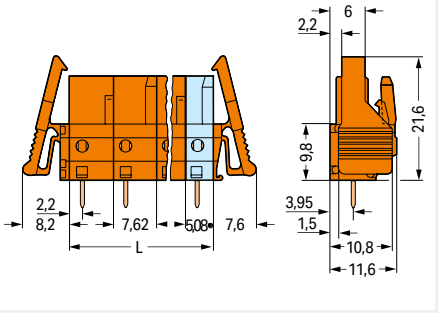
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90 °

232-766/039-000

Pole No.	Item No.	PU
2	232-762/039-000	50
3	232-763/039-000	50
4	232-764/039-000	50
5	232-765/039-000	50
6	232-766/039-000	25
7	232-767/039-000	25
8	232-768/039-000	25
9	232-769/039-000	25
10	232-770/039-000	25
11	232-771/039-000	10
12	232-772/039-000	10



L = (pole no. – 1) x pin spacing + 5.08 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

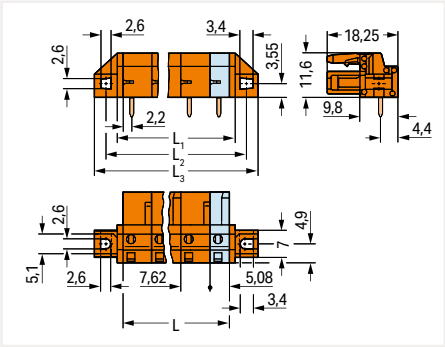
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Mounting type: Feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

232-866/031-000

Pole No.	Item No.	PU
2	232-862/031-000	50
3	232-863/031-000	50
4	232-864/031-000	50
5	232-865/031-000	50
6	232-866/031-000	25
7	232-867/031-000	25
8	232-868/031-000	25
9	232-869/031-000	25
10	232-870/031-000	25
11	232-871/031-000	10
12	232-872/031-000	10

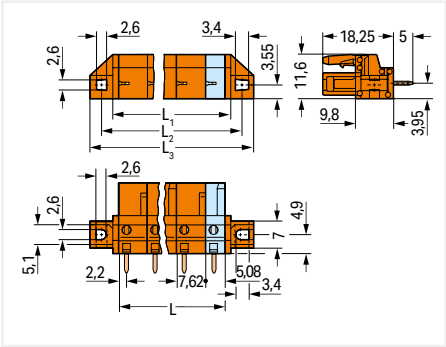


L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-766/031-000

Pole No.	Item No.	PU
2	232-762/031-000	50
3	232-763/031-000	50
4	232-764/031-000	50
5	232-765/031-000	50
6	232-766/031-000	25
7	232-767/031-000	25
8	232-768/031-000	25
9	232-769/031-000	25
10	232-770/031-000	25
11	232-771/031-000	10
12	232-772/031-000	10



L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

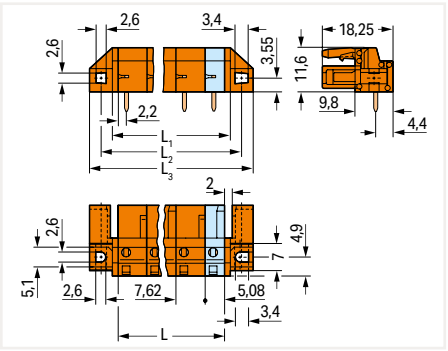
THT female header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Mounting type: Flush feed-through mounting;Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0 °

232-866/047-000

Pole No.	Item No.	PU
2	232-862/047-000	50
3	232-863/047-000	50
4	232-864/047-000	50
5	232-865/047-000	50
6	232-866/047-000	25
7	232-867/047-000	25
8	232-868/047-000	25
9	232-869/047-000	25
10	232-870/047-000	25
11	232-871/047-000	10
12	232-872/047-000	10

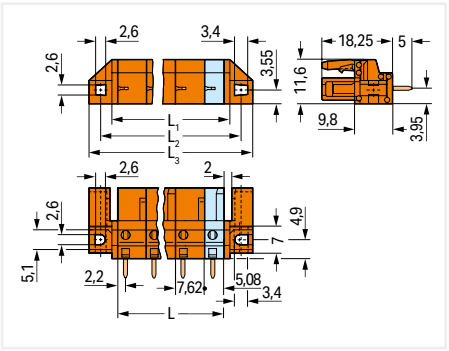


L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90 °

232-766/047-000

Pole No.	Item No.	PU
2	232-762/047-000	50
3	232-763/047-000	50
4	232-764/047-000	50
5	232-765/047-000	50
6	232-766/047-000	25
7	232-767/047-000	25
8	232-768/047-000	25
9	232-769/047-000	25
10	232-770/047-000	25
11	232-771/047-000	10
12	232-772/047-000	10



L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

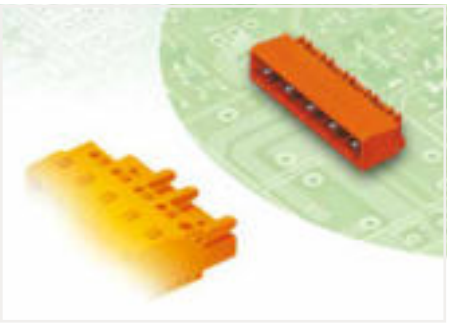
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

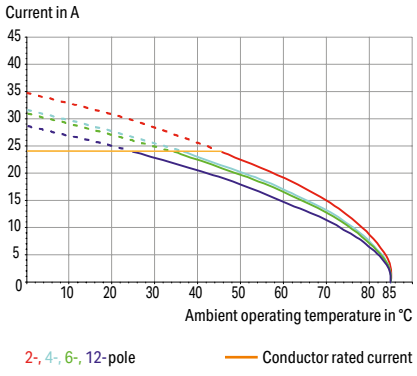
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	10 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

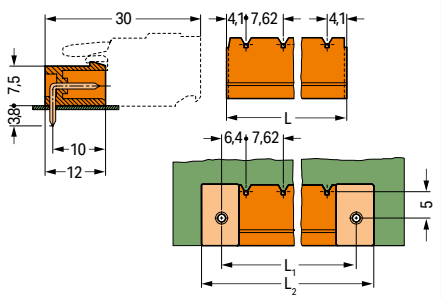
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-936/001-000

Pole No.	Item No.	PU
2	231-932/001-000	100
3	231-933/001-000	200
4	231-934/001-000	100
5	231-935/001-000	100
6	231-936/001-000	50
7	231-937/001-000	50
8	231-938/001-000	50
9	231-939/001-000	50
10	231-940/001-000	50
11	231-941/001-000	50
12	231-942/001-000	50

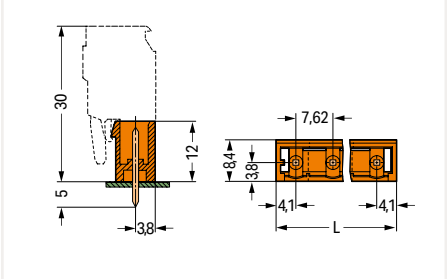


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-736/001-000

Pole No.	Item No.	PU
2	231-732/001-000	200
3	231-733/001-000	200
4	231-734/001-000	100
5	231-735/001-000	100
6	231-736/001-000	100
7	231-737/001-000	50
8	231-738/001-000	50
9	231-739/001-000	50
10	231-740/001-000	50
11	231-741/001-000	50
12	231-742/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

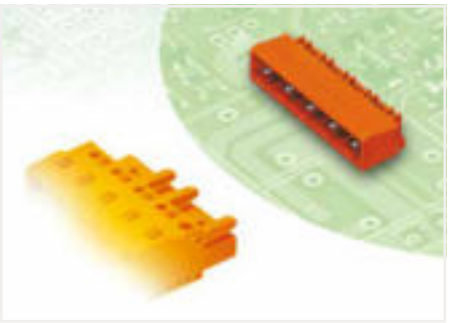
9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

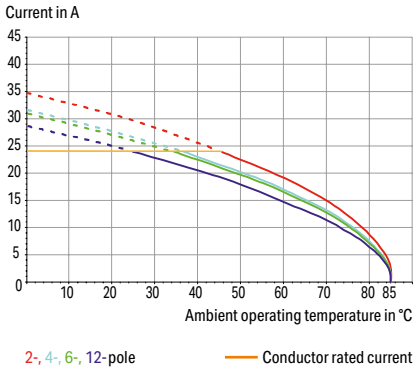
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT male header ▸ *MCS* MIDI Classic ▸ 231 Series
Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	15 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

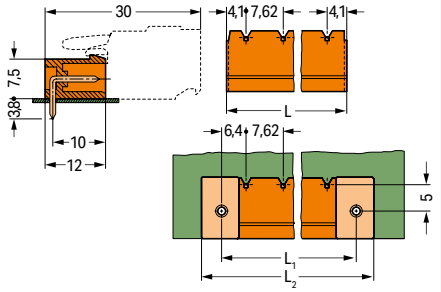
THT male header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange

Mating direction to the PCB: 0 ° ▸ Solder pin length: 3.8 mm

231-966/001-000

Pole No.	Item No.	PU
2	231-962/001-000	200
3	231-963/001-000	200
4	231-964/001-000	100
5	231-965/001-000	100
6	231-966/001-000	100
7	231-967/001-000	50
8	231-968/001-000	50
9	231-969/001-000	50
10	231-970/001-000	50
11	231-971/001-000	50
12	231-972/001-000	50

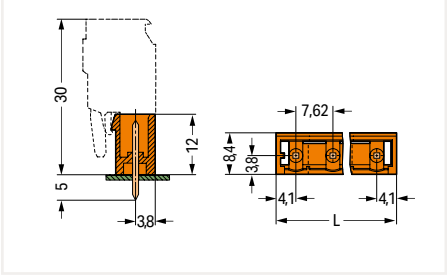


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90 ° ▸ Solder pin length: 5 mm

231-766/001-000

Pole No.	Item No.	PU
2	231-762/001-000	200
3	231-763/001-000	200
4	231-764/001-000	100
5	231-765/001-000	100
6	231-766/001-000	100
7	231-767/001-000	50
8	231-768/001-000	50
9	231-769/001-000	50
10	231-770/001-000	50
11	231-771/001-000	50
12	231-772/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

Double pin header ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 7.62 mm / 0.3 inch ▸ Mounting type: DIN-35 rail ▸ Color: orange

- Allow *MCS* Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	12 A	12 A	12 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approbations per	UL 1977			
Rated voltage	600 V			
Rated current	15 A			
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 726

DIN-rail Page 868

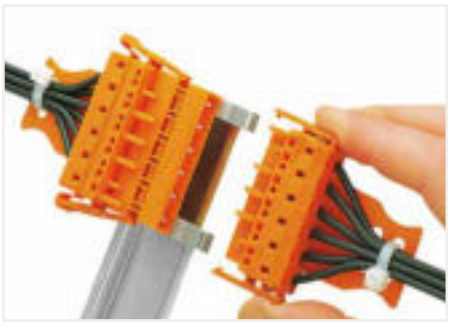
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Double pin header ▶ *MCS* MIDI Classic ▶ 232 Series

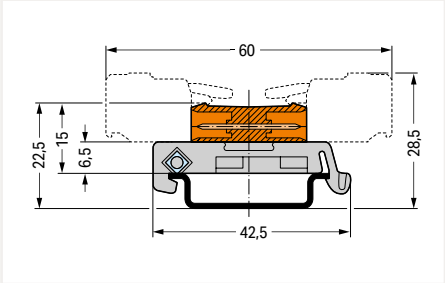
Pin spacing: 7.62 mm / 0.3 inch ▶ Mounting type: DIN-35 rail ▶ Color: orange

232-586/007-000



Female connectors with locking levers

Pole No.	Item No.	PU
2	232-582/007-000	50
3	232-583/007-000	50
4	232-584/007-000	25
5	232-585/007-000	25
6	232-586/007-000	25
7	232-587/007-000	10
8	232-588/007-000	10
9	232-589/007-000	10
10	232-590/007-000	10
11	232-591/007-000	10
12	232-592/007-000	10



Total length = (pole no. – 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

Operating Tools
MCS MIDI

Operating lever; for male and female connectors equipped with CAGE CLAMP® connection; 5/5.08 mm and 7.5/7.62 mm pin spacing

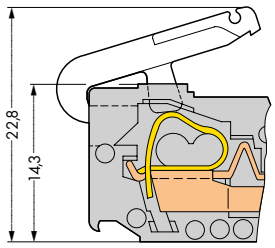
Color	Item No.	PU (SPU)
natural	**231-131**	100 (25)
rot	**231-291**	100 (25)

Operating tool; for male and female connectors equipped with CAGE CLAMP® connection; 5/5.08 mm and 7.5/7.62 mm pin spacing

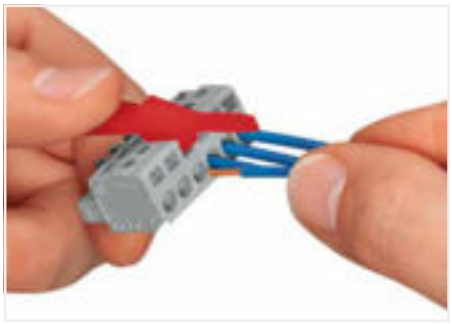
Color	Item No.	PU (SPU)
natural	**231-159**	100 (25)
rot	**231-231**	100 (25)

Inserting a conductor via operating lever.

Conductor termination parallel to CAGE CLAMP® actuation



Operating levers are not suitable for panel-mount, angled female connectors.



Conductor termination perpendicular to CAGE CLAMP® actuation

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

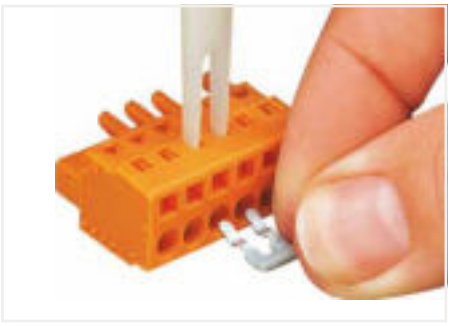
Operating Tools and Test Plug Adapters
MCS MIDI

Multipole operating tool; insulated; operation parallel to conductor entry; suitable for male and female connectors with CAGE CLAMP®; 5/5.08 mm pin spacing		
	Item No.	PU (SPU)
1-pole	**209-130**	100 (1)
2-pole	**280-432**	100 (1)
3-pole	**280-433**	100 (1)
4-pole	**280-434**	40 (1)
5-pole	**280-435**	40 (1)
6-pole	**280-436**	40 (1)
7-pole	**280-437**	30 (1)
8-pole	**280-438**	30 (1)
9-pole	**280-439**	30 (1)
10-pole	**280-440**	30 (1)

Operating tool; insulated; operation perpendicular to conductor entry; suitable for male and female connectors with CAGE CLAMP®; 5/5.08 pin spacing		
	Item No.	PU (SPU)
2-pole	**209-132**	40 (1)

Test plug adapter; for female connectors; light gray		
Pin Spacing	Item No.	PU
5/5.08 mm	**231-661**	100
7.5/7.62 mm	**231-662**	100

Inserting male or female connectors with long contact pins into 280 Series Rail-Mount Terminal Blocks via multi-pole operating tool (max. 10-pole for field assembly). Using CAGE CLAMP®-equipped male and female connectors (5/5.08 mm pin spacing), this operating tool allows up to ten CAGE CLAMP® units to be opened simultaneously, e.g., when inserting 231-90x Comb-Style Jumper Bars. Wiring male or female connectors should be performed in a suitable mount.



Operating tool for 231-902 Comb-Style Jumper Bars

Test plug adapter with CAGE CLAMP® connection

Electrical Data	
Ratings per	IEC/EN 60664-1
Overvoltage category	III
Pollution degree	2
Rated voltage	320 V
Rated surge voltage	4 kV
Rated current	12 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.33 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Coding Keys
MCS MIDI

Coding key; for male headers

Color	Item No.	PU (SPU)
○ light gray	**231-500**	200 (100)

Coding key; for male headers; 5/5.08 mm pin spacing

Color	Item No.	PU
○ light gray	**231-129**	100

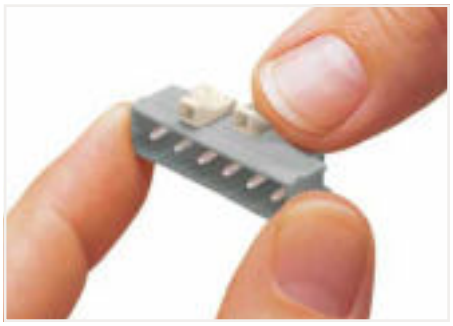
Coding key; for male headers; 7.5/7.62 mm pin spacing

Color	Item No.	PU
○ light gray	**231-130**	100

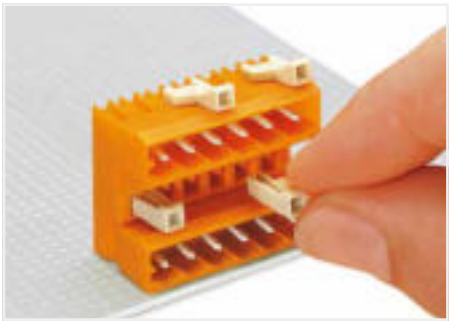
Coding pin; for male headers for double-deck assembly; snaps into lower level

Color	Item No.	PU
○ light gray	**231-160**	100

Inserting separators for group formation directly into MCS MIDI Classic Male Headers.
Group formation using separators means that pole count is reduced by at least one pole. Female connectors with integrated end plates and 5/5.08 mm pin spacing are available for group formation without loss of poles. Group formation without loss of poles is possible using standard female connectors (7.5/7.62 mm pin spacing) without separators.



Snap-on coding key for male headers with solder pins and CAGE CLAMP®-equipped male connectors.
The last pole of male and female connectors with 7.5 mm pin spacing has a width of 5 mm;
for 7.62 mm pin spacing, the pole width is 5.08 mm.
Always use a 231-129 Coding Key for coding this pole.



Coding a THT double-deck male header – lower level.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Lockout Caps; Insulation Stops and Locking Devices
MCS MIDI

Lockout caps; for male and female connectors equipped with CAGE CLAMP® connection

Color	Item No.	PU (SPU)
gray	**231-668**	500 (100)
orange	**231-669**	500 (100)

Insulation stop; for male and female connectors equipped with CAGE CLAMP® or Push-in CAGE CLAMP® connection; 5/5.08 mm pin spacing

Color	Conductor Size	Item No.	PU
white	0.08 … 0.2 mm² "s" 0.08 … 0.14 mm² "f-st"	**231-670**	200
light gray	0.25 … 0.5 mm²	**231-671**	200
dark gray	0.27 … 1 mm²	**231-672**	200

7.5/7.62 mm pin spacing

Color	Conductor Size	Item No.	PU
white	0.08 … 0.2 mm² "e" 0.08 … 0.14 mm² "f-st"	**231-673**	200
light gray	0.25 … 0.5 mm²	**231-674**	200
dark gray	0.27 … 1 mm²	**231-675**	200

Locking devices; for angled THT male headers with solder pins

Color	Item No.	PU
gray	**231-193**	100
orange	**231-393**	100

Screws for locking devices

Type	Item No.	PU
Screw with nut		
M2 x 12 mm	**231-195**	100
Self-tapping screw; 1.8 mm Ø mounting hole		
B 2.2 x 13 mm	**231-194**	100

Sealing unnecessary clamping points in CAGE CLAMP®-equipped male and female connectors (e.g., when doubling the pin spacing to meet clearance and creepage distance requirements, or when higher rated voltage is required). Lockout pins are not suitable for panel-mount, angled female connectors.

The wiring of programmable logic controllers and microprocessor-operated control circuits often relies on very small, fine-stranded conductors. These conductors are highly flexible and deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all. Common to all terminal block types currently offered, this problem creates unnecessary downtime for troubleshooting.

Insulation stops for connectors reliably ensure proper termination. Insulation stops automatically bundle the cores of fine-stranded conductors when inserted into the clamping unit, preventing splaying. This also limits the conductor entry to a defined cross sectional area – ensuring the actual conductor, not the insulation, will enter the clamping unit

Insulation stops are available as dividable 5-pole strips for MCS MIDI Male and Female Connectors. Insulation stop usage will not affect the conductor strip lengths for the aforementioned connectors.

Insulation stops are not suitable for panel-mount female connectors.

Locking devices enhance connection reliability between male headers with angled solder pins and the PCB. This substantially reduces mechanical stress on both solder pins and joints, particularly when dealing with small lengths and frequent mating cycles.

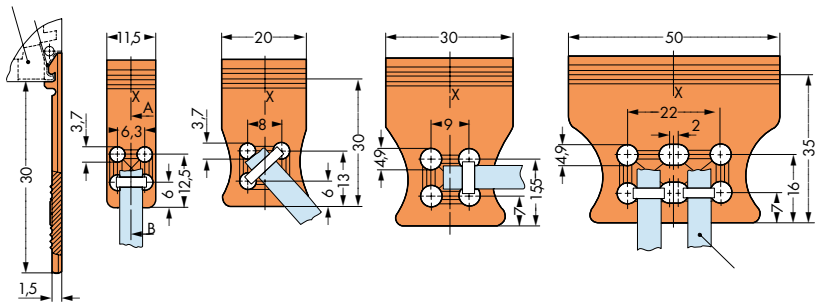
9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Strain Relief Plate; Factory Assembled; for Male and Female Connectors with CAGE CLAMP® Connection
MCS MIDI

Pin spacing 5/5.08 mm; orange		
Pole No.	Width	Item No. Suffix*
2 … 3	11.5 mm	**…/032-000**
4 … 5	20 mm	**…/033-000**
6 … 9	30 mm	**…/034-000**
10 … 24	50 mm	**…/035-000**

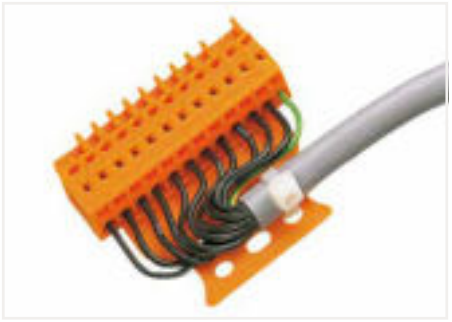
Pin spacing 7.5/7.62 mm; gray		
Pole No.	Width	Item-No. Suffix*
2 … 3	11.5 mm	**…/032-000**
4 … 5	20 mm	**…/033-000**
6 … 9	30 mm	**…/034-000**
10 … 24	50 mm	**…/035-000**



Both CAGE CLAMP®-equipped male and female connectors can be fitted with a strain relief plate. The strain relief plates must be pre-assembled (glued) prior to delivery for connector models equipped with CAGE CLAMP® connection. These strain relief plates are available in four different widths and are allocated to the specific pin spacing and pole number (as shown above). Angled female connectors for panel mounting cannot be fitted with strain relief plates.

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

Cable ties and binding tools are not offered by WAGO.
The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.



Ordering example:
1-conductor female connector,
with strain relief plate,
5.08 mm pin spacing, 12-pole, orange:
231-312/026-000/035-000

Ordering example:
1-conductor female connector,
with strain relief plate,
5 mm pin spacing, 3-pole, gray:
231-103/026-000/032-000

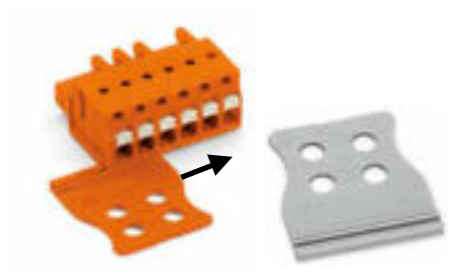
Gray strain relief plates are used for light gray 721, 722 and 723 Series Male and Female Connectors equipped with CAGE CLAMP® connection.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

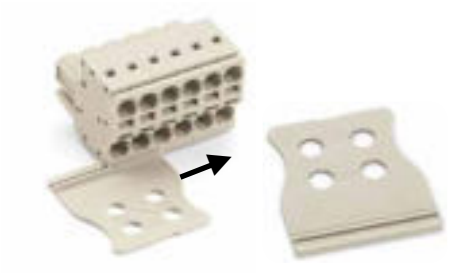
Strain Relief Plate; for Male and Female Connectors with Push-in CAGE CLAMP® Connection; 2721, 2231 Series and 2-Conductor Female Connectors 231, 721 Series

MCS MIDI

For inserting; 5/5.08 mm pin spacing



For inserting; 7.5/7.62 mm pin spacing



Factory assembled

Light gray

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-127**	100 (25)
3 … 4	12.5 mm	**734-128**	100 (25)
5 … 7	25 mm	**734-129**	100 (25)
8 … 11	35 mm	**734-126**	100 (25)
12 … 16	55 mm	**734-426**	50 (25)
17 … 24	75 mm	**734-427**	50 (25)

Light gray

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-127**	100 (25)
2 … 3	12.5 mm	**734-128**	100 (25)
4 … 6	25 mm	**734-129**	100 (25)
7 … 9	35 mm	**734-126**	100 (25)
10 … 12	55 mm	**734-426**	50 (25)
13 … 16	75 mm	**734-427**	50 (25)

Pin spacing 5/5.08 mm and 7.5/7.62 mm

Pole No.	Width	Item No. Suffix
2	6 mm	**…/132-000**
2 … 3	12.5 mm	**…/133-000**
4 … 6	25 mm	**…/134-000**
7 … 9	35 mm	**…/135-000**
10 … 12	55 mm	**…/136-000**
13 … 16	75 mm	**…/137-000**

Gray

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-327**	100 (25)
3 … 4	12.5 mm	**734-328**	100 (25)
5 … 7	25 mm	**734-329**	100 (25)
8 … 11	35 mm	**734-326**	100 (25)
12 … 16	55 mm	**734-430**	50 (25)
17 … 24	75 mm	**734-431**	50 (25)

Gray

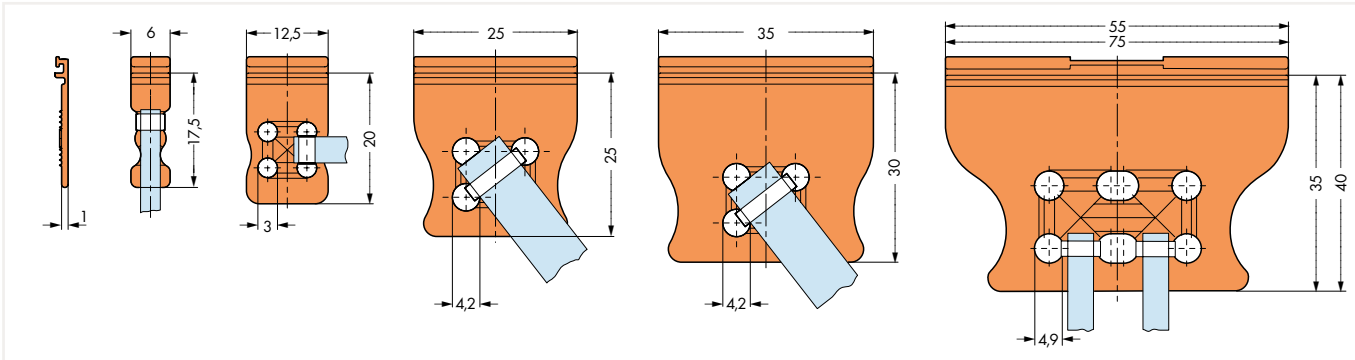
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-327**	100 (25)
2 … 3	12.5 mm	**734-328**	100 (25)
4 … 6	25 mm	**734-329**	100 (25)
7 … 9	35 mm	**734-326**	100 (25)
10 … 12	55 mm	**734-430**	50 (25)
13 … 16	75 mm	**734-431**	50 (25)

Orange

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-227**	100 (25)
3 … 4	12.5 mm	**734-228**	100 (25)
5 … 7	25 mm	**734-229**	100 (25)
8 … 11	35 mm	**734-226**	100 (25)
12 … 16	55 mm	**734-428**	50 (25)
17 … 24	75 mm	**734-429**	50 (25)

Orange

Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-227**	100 (25)
2 … 3	12.5 mm	**734-228**	100 (25)
4 … 6	25 mm	**734-229**	100 (25)
7 … 9	35 mm	**734-226**	100 (25)
10 … 12	55 mm	**734-428**	50 (25)
13 … 16	75 mm	**734-429**	50 (25)



Female connectors with Push-in CAGE CLAMP® can be retrofitted with a strain relief plate or pre-assembled with one at the factory. These strain relief plates are available in six different widths and are allocated to the specific pin spacing and pole number (as shown left). The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways.

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

Cable ties and binding tools are not offered by WAGO.
The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-On Type Strain Releif Housing; Consisting of Strain Relief Support and Housing
MCS MIDI

Pin spacing 5 mm; gray		
Pole No.	Item No.	PU
2	**232-602**	25
3	**232-603**	25
4	**232-604**	25
5	**232-605**	25
6	**232-606**	25
7	**232-607**	25
8	**232-608**	25
9	**232-609**	25
10	**232-610**	25
12	**232-612**	25

Pin spacing 5.08 mm; orange		
Pole No.	Item No.	PU
2	**232-632**	25
3	**232-633**	25
4	**232-634**	25
5	**232-635**	25
6	**232-636**	25
7	**232-637**	25
8	**232-638**	25
9	**232-639**	25
10	**232-640**	25
12	**232-642**	25
16	**232-646**	25

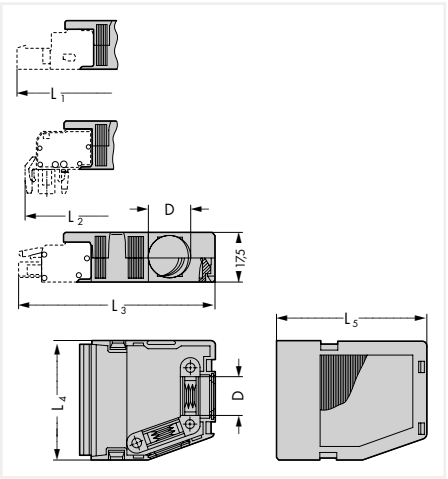
Cable clamp; for strain relief		
Pole No.	Item No.	PU
4 … 6	**209-177**	25
7 … 16	**209-174**	25

Mounting screws; for cable clamp		
Pole No.	Item No.	PU
4 … 6	**209-176**	50
7 … 16	**209-173**	50

2- to 3-pole; only suitable for cable ties; 1 cable outlet (rear side); max. 3.6 mm cable tie width
4- to 6-pole; suitable for cable clamp; 1 x cable outlet (rear side)
7- to 8-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 1 x cable outlet (side); 1 cover (included)
9- to 16-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side); 2 covers (included)

Cable ties and binding tools are not offered by WAGO.

9



Strain Relief Housing Dimensions (in mm):							
Pole No.	L_4 (5 mm)	L_4 (5.08 mm)	L_1	L_2	L_3	L_5	Cable Ø (max.)
2	13	13	59	55.5	58	41.5	6
3	18	18	59	55.5	58	41.5	7.5
4	23	23	59	55.5	58	41.5	9.5
5	28	28	59	55.5	58	41.5	9.5
6	33	33	59	55.5	58	41.5	9.5
7	38	38	71.5	68	70.5	54	14
8	43	43	71.5	68	70.5	54	14
9	48	48.7	71.5	68	70.5	54	14
10	53	53.8	71.5	68	70.5	54	14
12	63	64	71.5	68	70.5	54	14
16	85	85	71.5	68	70.5	54	14

Snapping a cover into the unused cable outlet.

Snapping on a strain relief housing, demonstrated with a female connector with locking levers. Cable exits laterally – strain relief by cable tie (up to a width of 4 mm).

Disassembling a strain relief housing is only possible using an operating tool (e.g., 210-719).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-On Type Strain Releif Housing; Consisting of Strain Relief Support and Housing
MCS MIDI

Pin spacing 7.5 mm; light gray		
Pole No.	Item No.	PU
2	**232-662**	25
3	**232-663**	25
4	**232-664**	25
5	**232-665**	25
7	**232-667**	25
10	**232-670**	25

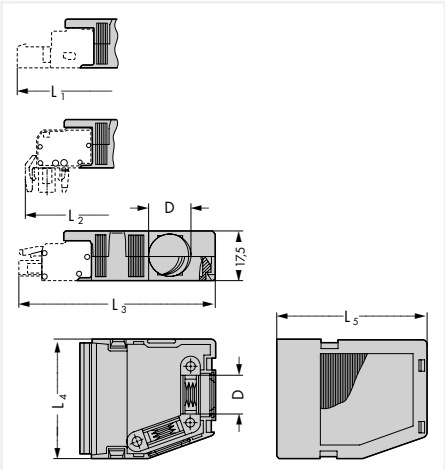
Pin spacing 7.62 mm; orange		
Pole No.	Item No.	PU
2	**232-682**	25
3	**232-683**	25
4	**232-684**	25
5	**232-685**	25
7	**232-687**	25

Cable clamp; for strain relief		
Pole No.	Item No.	PU
4 … 6	**209-177**	25
7 … 16	**209-174**	25

Mounting screws; for cable clamp		
Pole No.	Item No.	PU
4 … 6	**209-176**	50
7 … 16	**209-173**	50

2-pole; only suitable for cable ties; 1 cable outlet (rear side), max. cable tie width 3.6 mm;
3- to 4-pole; suitable for cable clamp; 1 x cable outlet (rear side);
5-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 1 x cable outlets (side); 1 cover (included)
7-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side); 2 covers (included)

Cable ties and binding tools are not offered by WAGO.



Strain Relief Housing Dimensions (in mm):							
Pole No.	L_4 (5 mm)	L_4 (5.08 mm)	L_1	L_2	L_3	L_5	Cable Ø (max.)
2	15.5	15.5	59	55.5	58	41.5	6
3	23	23	59	55.5	58	41.5	9.5
4	30.5	30.5	59	55.5	58	41.5	9.5
5	38	38	71.5	68	70.5	54	14
7	53	53.8	71.5	68	70.5	54	14

3-pole female connector with strain relief housing

4-pole male connector with strain relief housing

Gray strain relief plates are used for light gray 721, 722 and 723 Series Male and Female Connectors equipped with CAGE CLAMP® connection.

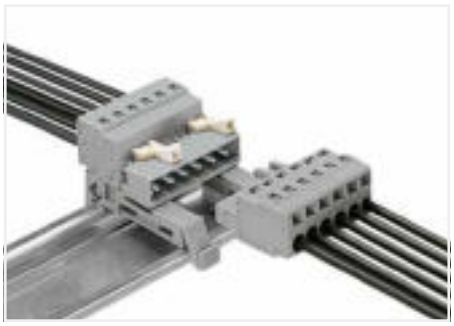
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Mounting Adapters
MCS MIDI

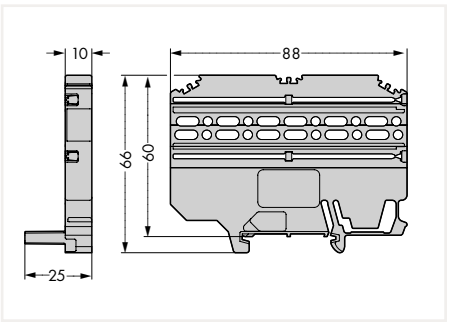
Mounting adapter for DIN-35 rail; for male and female connectors with snap-in mounting feet		
Color	Item No.	PU
gray	**209-137**	25

Multi mounting adapter; for DIN-35 rail, for male and female connectors with snap-in mounting feet		
Color	Item No.	PU
gray	**209-148**	25

Mounting adapter; for DIN-35 rail; for angled female connectors with snap-in feet for panel mounting		
Color	Item No.	PU (SPU)
gray	**209-120**	500(25)



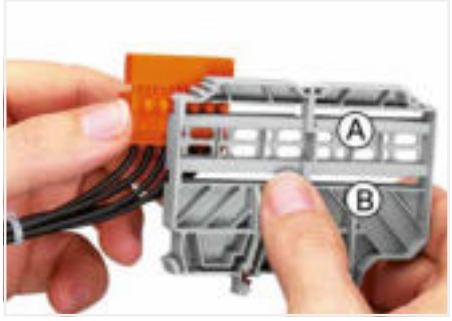
Female connector with snap-in mounting feet and 209-189 Mounting Adapter on DIN-35 rail



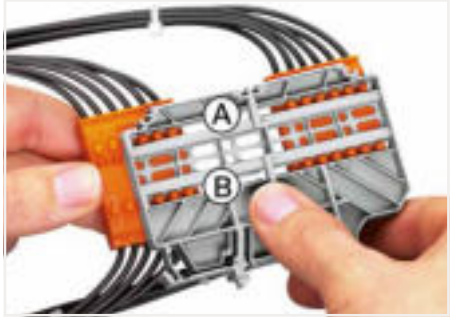
Multi mounting adapter (209-120) on DIN-35 rail and angled female connector with snap-in feet for panel mounting

The pluggable male or female connector can also be fitted with a strain relief plate.

The adapter can be marked either with WSB, Mini-WSB or WMB markers.



Both male and female connectors remain pluggable when they are mounted on the multi mounting adapter via its oblong holes or open grooves (A/B).



If a connector is pushed from the side into the open grooves (A/B) of the multi mounting adapter, the plug connection will be reliably protected from unintentional disconnection when mounted.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

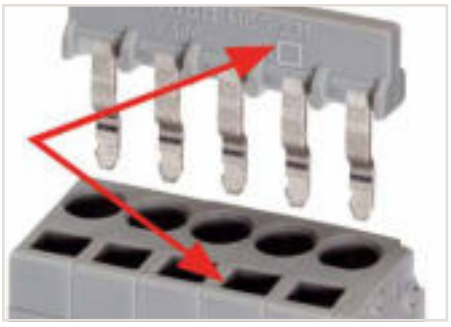
Comb-Style Jumper Bars
MCS MIDI

Comb-style jumper bar; for male and female connectors with CAGE CLAMP®; with CAGE CLAMP®; 5/5.08 mm pin spacing		
	Item No.	PU (SPU)
2-way	**231-902**	200 (25)
3-way	**231-903**	200 (25)
5-way	**231-905**	100 (25)
7-way	**231-907**	100 (25)
10-way	**231-910**	100 (25)

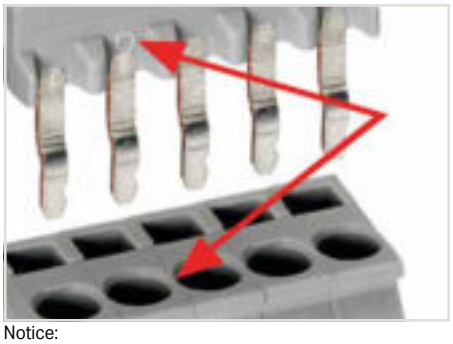
Electrical Data	
Ratings per	IEC/EN 60664-1
Overvoltage category	III
Pollution degree	2
Rated voltage	320 V
Rated surge voltage	4 kV
Rated current	12 A (2-pole) 16 A (3 … 7-pole)

Notice:
Not suitable for female connectors equipped with Push-in CAGE CLAMP® connection and angled, panel-mount female connectors.

Comb-style jumper bar reduces maximum conductor cross-section to 1.5 mm².



Notice:
Insert jumper bar according to direction of symbols.
□ symbol correlates to the direction of the operating slot.



Notice:
Insert jumper bar according to direction of symbols.
○ symbol correlates to the direction of the conductor entry.

Custom comb-style jumper bars are created by breaking off jumper contacts (3 contacts and more).

Inserting a comb-style jumper bar via multipole operating tool – with the female or male connector being supported in a suitable holding device.

Commoning a female connector with 231-902 Comb-Style Jumper Bar via 2-pole operating tool.

Both male and female connectors can be pre-assembled with comb-style jumper bars upon request.

Notice: Comb-style jumper bars reduce the conductor cross-section to 1.5 mm² "s" + "f-st."

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Direct Marking
MCS MIDI and *MCS* MIDI Classic

The pole numbers of male and female connectors for CAGE CLAMP® termination can be marked via factory direct marking.

Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other custom marking options are available upon request.

Direct marking is not suitable for MCS PCB Male Headers. WAGO recommends pole marking on the PCB for these headers.

Female headers with solder pins are exposed to aggressive flux agents during wave soldering. Custom direct marking procedures are available upon request for these items.

The marking type is always defined by the second 4-digit block of the item no. suffix for items with standard colors and materials.
Example: 721-106/. . . . - xxxx
xxxx = Item no. suffix for direct marking

Direct marking of 1-conductor female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-106/037-047**
1-conductor female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047/ 034-000**
1-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047/ 034-000**

Direct marking of 1-conductor male connectors; perpendicular to conductor entry; pole no. … 1; item no. suffix.: /. . . - 044

Version	Item No. Example
1-conductor male connector; 6-pole; light gray	**721-606/000-044**
1-conductor male connector; with mounting flanges; 6-pole; light gray	**721-606/019-044**
1-conductor male connector; with mounting flanges and strain relief plate; 6-pole; light gray	**721-606/019-044/ 034-000**

Direct marking of 1-conductor female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
1-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-106/026-9037**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-106/037-9037**
1-conductor female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-9037/ 034-000**
1-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/037-9037/ 034-000**

Direct marking of 1-conductor male connectors; parallel to conductor entry; pole no. … 1; item no. suffix.: /. . . - 9034

Version	Item No. Example
1-conductor male connector; 5 mm pin spacing; 6-pole; light gray	**721-606/000-9034**
1-conductor male connector; with mounting flanges; 5 mm pin spacing; 6-pole; light gray	**721-606/019-9034**
1-conductor male connector; with mounting flanges and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-606/019-9034/ 034-000**

Direct Marking
MCS MIDI and *MCS* MIDI Classic

Direct marking of 1-conductor female connectors with push-buttons; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-047**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-047**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-047/ 134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-047/ 134-000**

Direct marking of 2-conductor female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
2-conductor female connector; 6-pole; light gray	**721-2106/026-047**
2-conductor female connector; with locking levers; 6-pole; light gray	**721-2106/037-047**
2-conductor female connector; with locking levers and strain relief plate; 6-pole; light gray	**721-2106/026-047/ 134-000**

Direct marking of 1-conductor angled female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor angled female connector; 6-pole; light gray	**722-206/026-047**
1-conductor angled female connector; with strain relief plate; 6-pole; light gray	**722-206/026-047/ 034-000**

Direct marking of 1-conductor female connectors with push-buttons; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037**
1-conductor female connector; with push-buttons and locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037/ 134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037/ 134-000**

Direct marking of 2-conductor female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
2-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-2106/026-9037**
2-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-2106/037-9037**
2-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing 6-pole; light gray	**721-2106/026-9037/ 134-000**

Direct marking of 1-conductor angled female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor angled female connector; 5 mm pin spacing; 6-pole; light gray	**722-206/026-9037**
1-conductor angled female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**722-206/026-9037/ 034-000**

Direct Marking
MCS MIDI and *MCS* MIDI Classic

Direct marking of 2-conductor angled female connectors for panel mounting; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor angled female connector; with flanges for panel mounting; 5 mm pin spacing; 6-pole; light gray	**721-306/031-047**
1-conductor angled female connector; for panel mounting; with snap-in mounting feet; 5 mm pin spacing; 6-pole; light gray	**721-306/008-047**

Direct marking of 3- to 5-pole; 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment;
item no. suffix.: /. . . - 042

Version	Item No. Example
1-conductor male connector; with preceding ground contact; 5 mm pin spacing; 5-pole; light gray	**721-605/000-042**

1-conductor male connectors in 3- to 5-pole versions (721 and 723 Series) are available with the following markings:

3-pole: 3 - ⏚ - 1
4-pole: 4 - ⏚ - 2 - 1
5-pole: 5 - 4 - ⏚ - 2 - 1

Direct marking of 3- to 5-pole; 1-conductor female connectors for 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 045

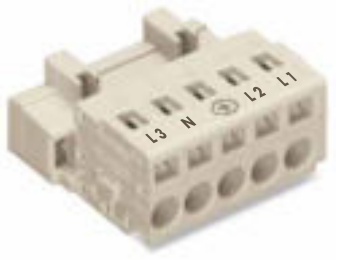
Version	Item No. Example
1-conductor female connector; with preceding ground contact; 5 mm pin spacing; 5-pole; light gray	**721-105/026-045**

1-conductor female connectors in 3- to 5-pole versions (721, 2721, 722 and 723 Series) for 1-conductor male connectors with preceding ground contact are available with the following markings:

3-pole: 1 - ⏚ - 3
4-pole: 1 - 2 - ⏚ - 4
5-pole: 1 - 2 - ⏚ - 4 - 5

Direct marking of 1-conductor angled female connectors for panel mounting; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
1-conductor angled female connector; with flanges for panel mounting; 5 mm pin spacing; 6-pole; light gray	**721-306/031-9037**
1-conductor angled female connector; for panel mounting; with snap-in mounting feet; 5 mm pin spacing; 6-pole; light gray	**721-306/008-9037**



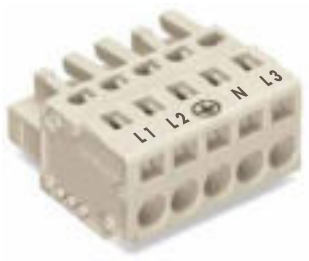
Direct marking of 3- to 5-pole; 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment;
item no. suffix.: /. . . - 041

Version	Item No. Example
1-conductor male connector; with preceding ground contact; 5 mm pin spacing; 5-pole; light gray	**721-605/000-041**

1-conductor male connectors in 3- to 5-pole versions (721 and 723 Series) are available with the following markings:

3-pole: N - ⏚ - L 1
4-pole: L 2 - ⏚ - N - L 1
5-pole: L 3 - N - ⏚ - L 2 - L 1

Pole no. … 1; item no. suffix.: /. . . - 043



Direct marking of 3- to 5-pole; 1-conductor female connectors for 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 046

Version	Item No. Example
1-conductor female connector; with preceding ground contact; 5 mm pin spacing; 5-pole; light gray	**721-105/026-046**

1-conductor female connectors in 3- to 5-pole versions (721, 2721, 722 and 723 Series) for 1-conductor male connectors with preceding ground contact are available with the following markings:

3-pole: L 1 - ⏚ - N
4-pole: L 1 - N - ⏚ - L 2
5-pole: L 1 - L 2 - ⏚ - N - L 3

1 … pole no.; item no. suffix.: /. . . - 047

Cutout Dimensions
MCS MIDI

Table 1:
Cutout for 231. 721. 723 and 731 Series Male and Female Connectors with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.4	18.4	13.6	18.6	15.9	20.9	16	21
3	18.4	23.4	18.6	23.6	23.4	28.4	23.6	28.6
4	23.4	28.4	23.7	28.7	30.9	35.9	31.3	36.3
5	28.4	33.4	28.8	33.8	38.4	43.4	38.9	43.9
6	33.5	38.3	34	38.8	46	50.8	46.6	51.4
7	38.5	43.3	39.1	43.9	53.5	58.3	54.2	59
8	43.5	48.3	44.1	48.9	61	65.8	61.8	66.6
9	48.5	53.3	49.2	54	68.5	73.3	69.5	74.3
10	53.5	58.3	54.3	59.1	76	80.8	77.1	81.9
11	58.5	63.3	59.4	64.2	83.5	88.3	84.7	89.5
12	63.5	68.3	64.5	69.3	91	95.8	92.3	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.7	103.1	100.2	104.6	143.7	148.1	145.9	150.3
20	103.7	108.1	105.3	109.7	151.2	155.6	153.5	157.9
21	108.7	113.1	110.4	114.8	158.7	163.1	161.1	165.5
22	113.7	118.1	115.5	119.9	166.2	170.6	168.7	173.1
23	118.7	123.1	120.5	124.9	173.7	178.1	176.3	180.7
24	123.7	128.1	125.6	130	181.2	185.6	184	188.4

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

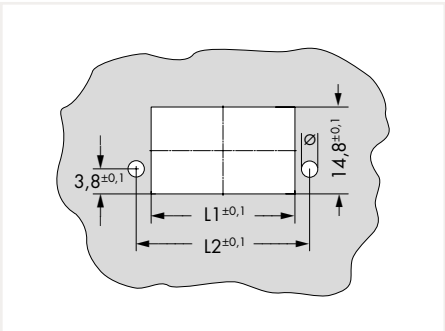
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

Table 2:
Cutout for 2721 and 2231 Series Female Connectors with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.2	18.4	13.4	18.6	15.7	20.9	15.8	21
3	18.2	23.4	18.4	23.6	23.2	28.4	23.4	28.6
4	23.2	28.4	23.5	28.7	30.7	35.9	31.1	36.3
5	28.2	33.4	28.6	33.8	38.2	43.4	38.7	43.9
6	33.4	38.3	33.9	38.8	45.9	50.8	46.5	51.4
7	38.4	43.3	39	43.9	53.4	58.3	54.1	59
8	43.4	48.3	44	48.9	60.9	65.8	61.7	66.6
9	48.4	53.3	49.1	54	68.4	73.3	69.4	74.3
10	53.4	58.3	54.2	59.1	75.9	80.8	77	81.9
11	58.4	63.3	59.3	64.2	83.4	88.3	84.6	89.5
12	63.4	68.3	64.4	69.3	90.9	95.8	92.2	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.8	103.1	100.3	104.6	143.8	148.1	146	150.3
20	103.8	108.1	105.4	109.7	151.3	155.6	153.6	157.9
21	108.8	113.1	110.5	114.8	158.8	163.1	161.2	165.5
22	113.8	118.1	115.6	119.9	166.3	170.6	168.8	173.1
23	118.8	123.1	120.6	124.9	173.8	178.1	176.4	180.7
24	123.8	128.1	125.7	130	181.3	185.6	184.1	188.4

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

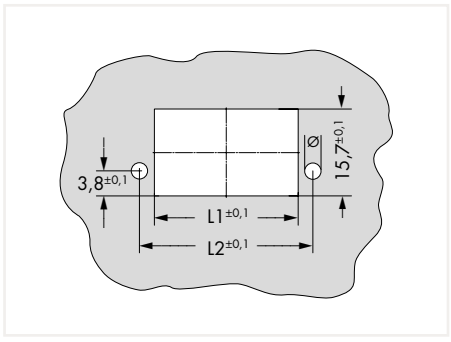
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

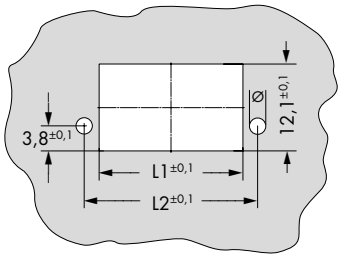
Table 3:
Cutout for 232 and 722 Series THT Female Headers with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.4	18.4	13.6	18.6	15.9	20.9	16	21
3	18.4	23.4	18.6	23.6	23.4	28.4	23.6	28.6
4	23.4	28.4	23.7	28.7	30.9	35.9	31.3	36.3
5	28.4	33.4	28.8	33.8	38.4	43.4	38.9	43.9
6	33.5	38.3	34	38.8	46	50.8	46.6	51.4
7	38.5	43.3	39.1	43.9	53.5	58.3	54.2	59
8	43.5	48.3	44.1	48.9	61	65.8	61.8	66.6
9	48.5	53.3	49.2	54	68.5	73.3	69.5	74.3
10	53.5	58.3	54.3	59.1	76	80.8	77.1	81.9
11	58.5	63.3	59.4	64.2	83.5	88.3	84.7	89.5
12	63.5	68.3	64.5	69.3	91	95.8	92.3	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.7	103.1	100.2	104.6	143.7	148.1	145.9	150.3
20	103.7	108.1	105.3	109.7	151.2	155.6	153.5	157.9
21	108.7	113.1	110.4	114.8	158.7	163.1	161.1	165.5
22	113.7	118.1	115.5	119.9	166.2	170.6	168.7	173.1
23	118.7	123.1	120.5	124.9	173.7	178.1	176.3	180.7
24	123.7	128.1	125.6	130	181.2	185.6	184	188.4

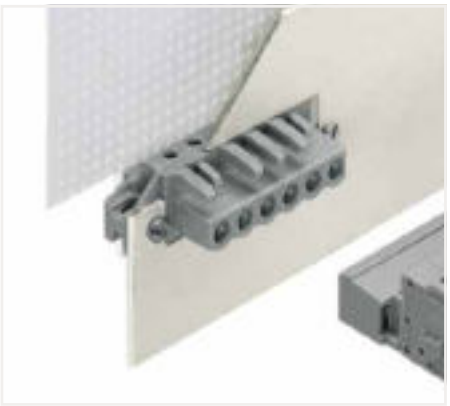
Self-tapping screws, for 1.8 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
B 2.2 x 9,5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts, for 2.5 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts, for 3.0 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

Table 4:
Cutout for 231 Series THT Male Headers with Mounting Flanges

	Pin Spacing 5 mm			Pin Spacing 7,5 mm		
Pole No.	L1	L2	L3	L1	L2	L3
2	13.6	8.9	9.5	16.1	10.6	10.8
3	18.6	11.4	12	23.6	14.3	14.5
4	23.6	13.9	14.5	31.1	18.1	18.3
5	28.6	16.4	17	38.6	21.8	22
6	33.8	19	19.6	46.3	25.7	25.9
7	38.8	21.5	22.1	53.8	29.4	29.6
8	43.8	24	24.6	61.3	33.2	33.4
9	48.8	26.5	27.1	68.8	36.9	37.1
10	53.8	29	29.6	76.3	40.7	40.9
11	58.8	31.5	32.1	83.8	44.4	44.6
12	63.8	34	34.6	91.3	48.2	48.4
13	69	36.6	37.2	99	52	52.2
14	74	39.1	39.7	106.5	55.8	56
15	79	41.6	42.2	114	59.5	59.7
16	84	44.1	44.7	121.5	63.3	63.5
17	89	46.6	47.2	129	67	67.2
18	94	49.1	49.7	136.5	70.8	71
19	99.2	51.7	52.3	144.2	74.6	74.8
20	104.2	54.2	54.8	151.7	78.4	78.6
21	109.2	56.7	57.3	159.2	82.1	82.3
22	114.2	59.2	59.8	166.7	85.9	86.1
23	119.2	61.7	62.3	174.2	89.6	89.8
24	124.2	64.2	64.8	181.7	93.4	93.6

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

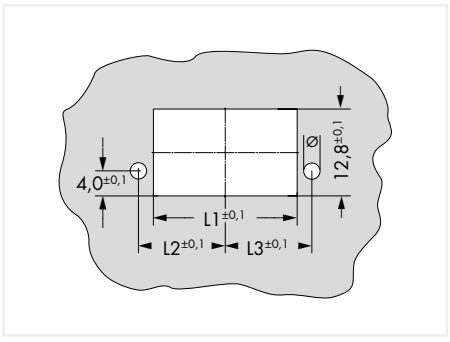
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)

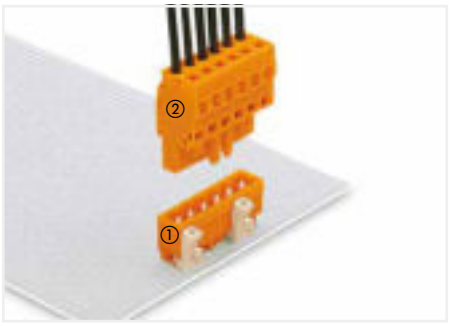


Drilled hole Ø depends on the type of screw used (see mounting screws).

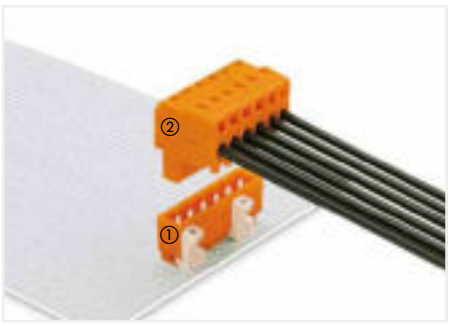
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

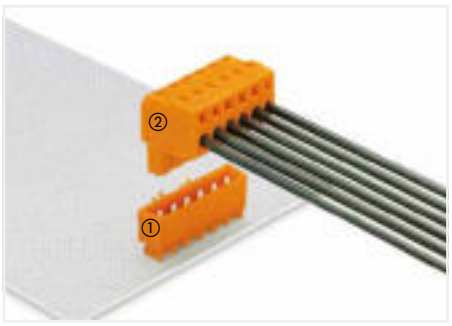
Application Examples
PCB Connectors and Headers
MCS MIDI Classic



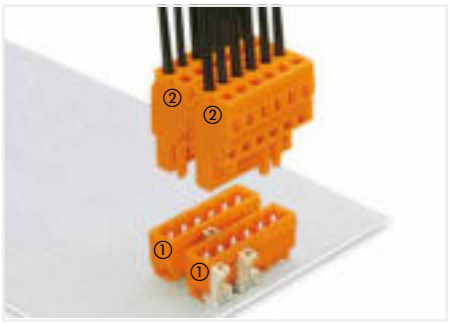
①*Male header with straight solder pins
②*Female connector with CAGE CLAMP®



①*Male header with straight solder pins
②*Angled female connector, conductor entry same direction as latches

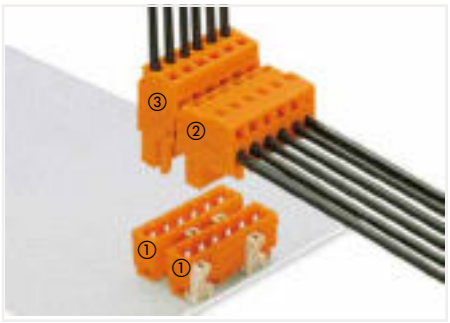


① Male header with straight solder pins
② Angled female connector, conductor entry opposite of latches



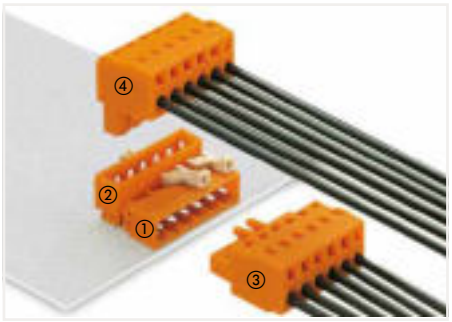
①*Male headers with straight solder pins**
②*Female connectors with CAGE CLAMP®

**Rear male header must be coded prior to soldering!

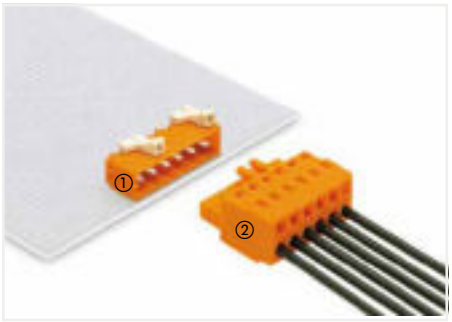


①*Male headers with straight solder pins**
②*Angled female connector, conductor entry same direction as latches
③*Female connector with CAGE CLAMP®

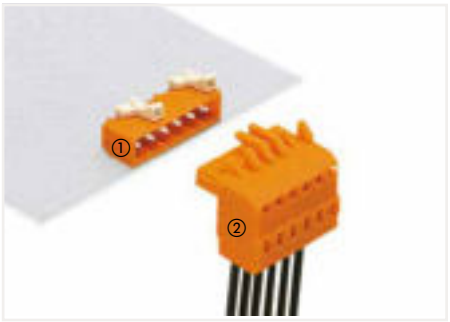
**Rear male header must be coded prior to soldering!



① Male header with angled solder pins
② Male header with straight solder pins
③ Female connector with CAGE CLAMP®
④ Angled female connector, conductor entry opposite of latches

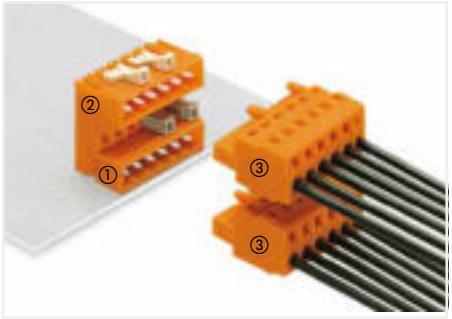


①*Male header with angled solder pins
②*Female connector with CAGE CLAMP®

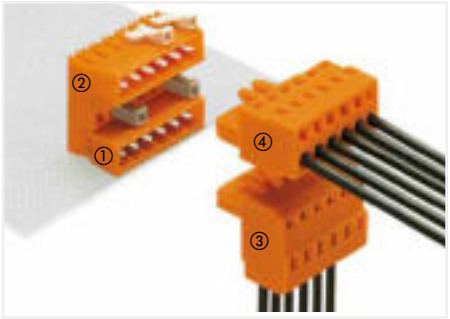


① Male header with angled solder pins
② Angled female connector, conductor entry opposite of latches

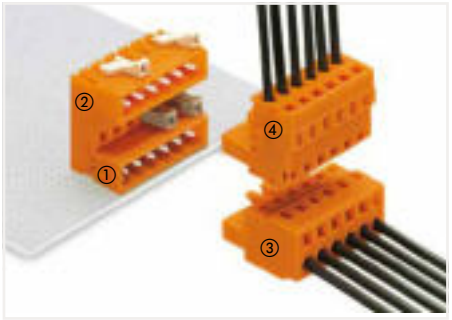
①*Male header with angled solder pins
②*Angled female connector, conductor entry same direction as latches



① Male header with angled solder pins
② Male header for double-deck assembly
③ Female connectors with CAGE CLAMP®



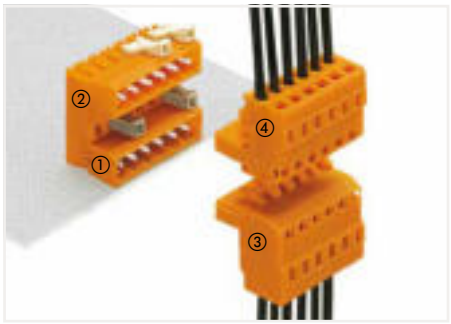
① Male header with angled solder pins
② Male header for double-deck assembly
③ Angled female connector, conductor entry opposite of latches
④ Female connector with CAGE CLAMP®



① Male header with angled solder pins
② Male header for double-deck assembly
③ Female connector with CAGE CLAMP®
④ Angled female connector, conductor entry same direction as latches

*also available in version "100 % protected against mismating" (see Section 5)

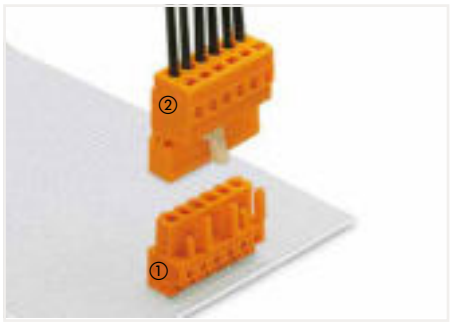
Application Examples
PCB Connectors and Headers
MCS MIDI Classic



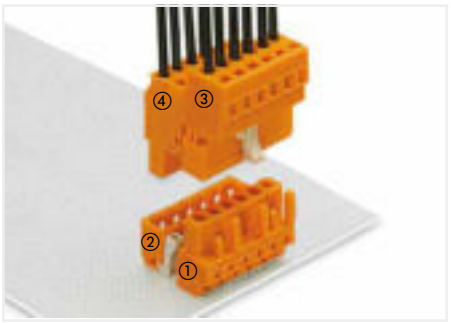
① Male header with angled solder pins
② Male header for double-deck assembly
③ Angled female connector, conductor entry opposite of latches
④ Angled female connector, conductor entry same direction as latches

Angled female connectors are available with conductor entries in the same direction as latches, or opposite of latches. This allows different conductor entry directions with the same mounting direction of the male headers. Angled female connectors with conductor entry opposite of latches are not available in versions that are 100 % protected against mismating.
Male headers and female connectors allow touch-proof supply to the PCB. Female headers and male connectors equipped with CAGE CLAMP® allow touch-proof supply from the PCB.
These combinations can also be used for coding different circuits.

Female connectors with strain relief plate

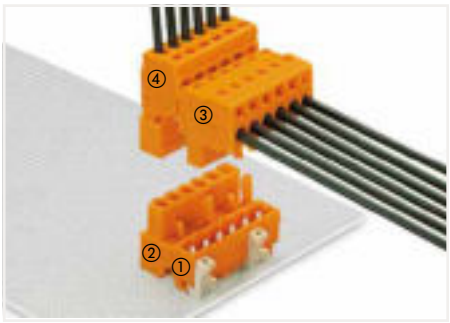


①*Female connector with straight solder pins
②*Male connector with CAGE CLAMP®

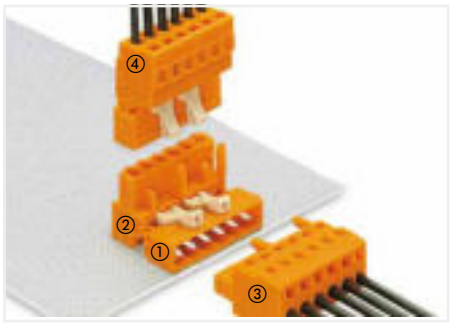


①*Female connector with straight solder pins
②*Male header with straight solder pins**
③*Male connector with CAGE CLAMP®
④*Female connector with CAGE CLAMP®

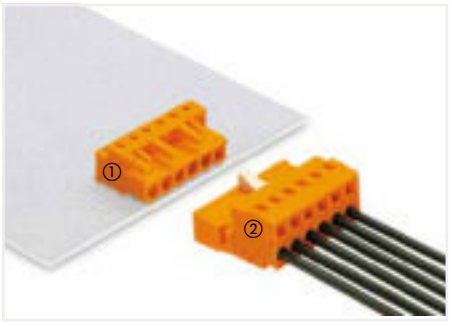
**Male header must be coded prior to soldering!



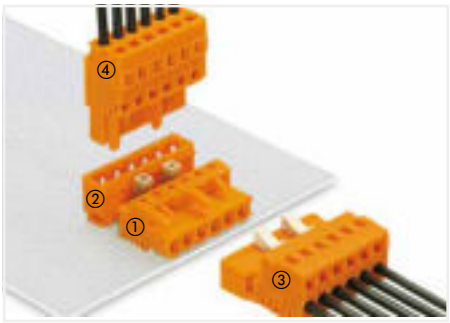
①*Male header with straight solder pins
②*Female header with straight solder pins
③*Angled female connector, conductor entry same direction as latches
④*Male connector with CAGE CLAMP®



①*Male header with angled solder pins
②*Female header with straight solder pins
③*Female connector with CAGE CLAMP®
④*Male connector with CAGE CLAMP®

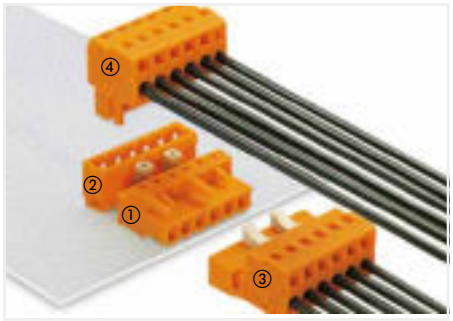


①*Female header with angled solder pins
②*Male connector with CAGE CLAMP®

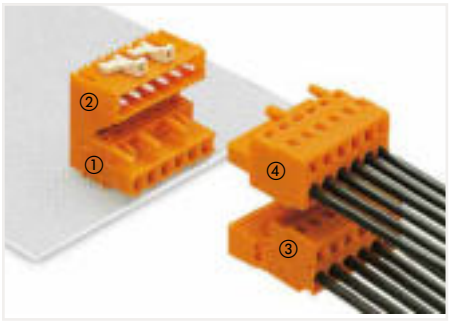


①*Female header with angled solder pins
②*Male header with straight solder pins**
③*Male connector with CAGE CLAMP®
④*Female connector with CAGE CLAMP®

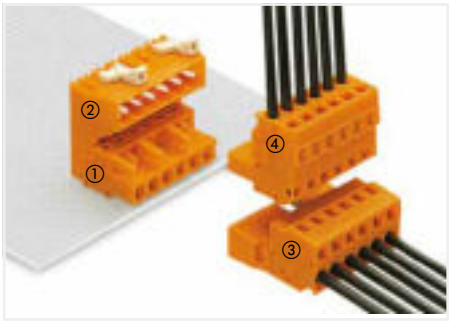
**Male header must be coded prior to soldering!



①*Female header with angled solder pins
②*Male header with straight solder pins**
③*Male connector with CAGE CLAMP®
④*Angled female connector, conductor entry same direction as latches



① Female header with angled solder pins
② Male header for double-deck assembly
③ Male connector with CAGE CLAMP®
④ Female connector with CAGE CLAMP®

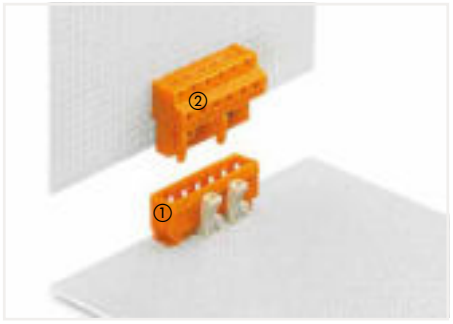


① Female header with angled solder pins
② Male header for double-deck assembly
③ Male connector with CAGE CLAMP®
④ Angled female connector, conductor entry same direction as latches

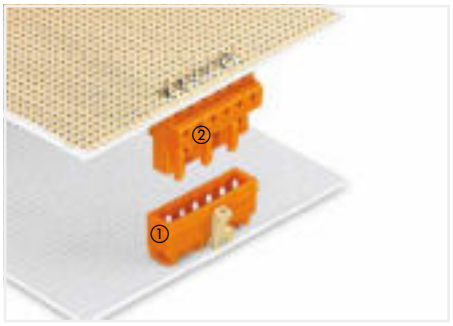
**Male header must be coded prior to soldering!

*also available in version "100 % protected against mismating" (see Section 5)

Application Examples
PCB Headers and Connectors
MCS MIDI Classic



①*Male header with straight solder pins
②*Female header with angled solder pins

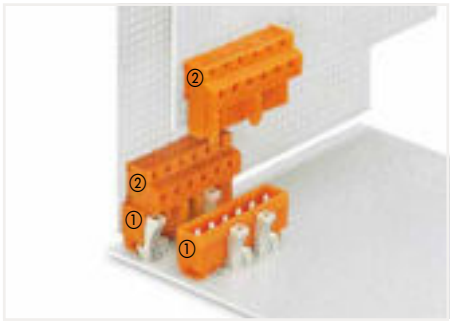


①*Male header with straight solder pins
②*Female header with straight solder pins

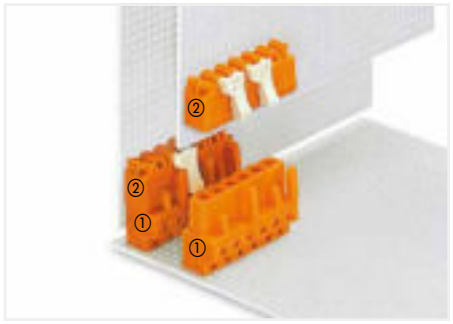
Total height when mated:
22.5 mm (0.886 inch)

Panel Feedthrough Connectors

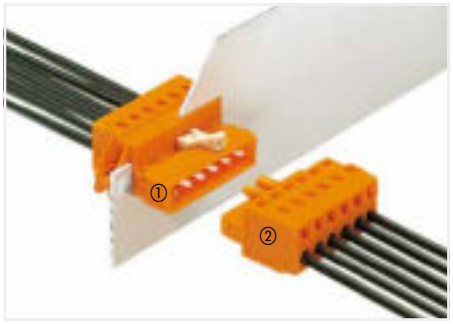
Snap-on type strain relief housings



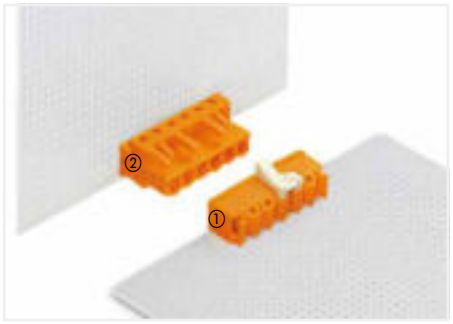
①*Male headers with straight solder pins
②*Female headers with angled solder pins



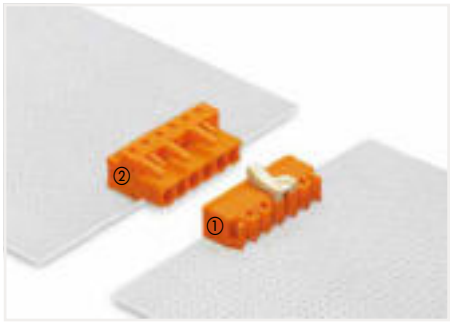
①*Female headers with straight solder pins
②*Male headers with angled solder pins



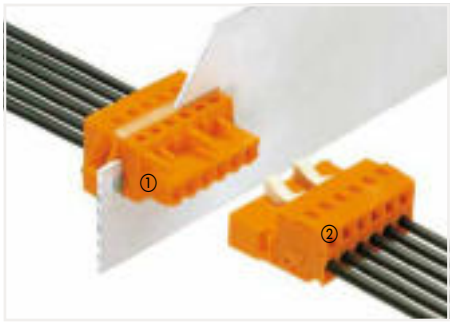
①*Male connector with mounting flanges and CAGE CLAMP®
②*Female connector with CAGE CLAMP®



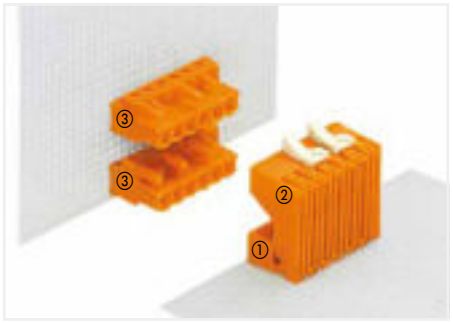
①*Male header with angled solder pins
②*Female header with straight solder pins



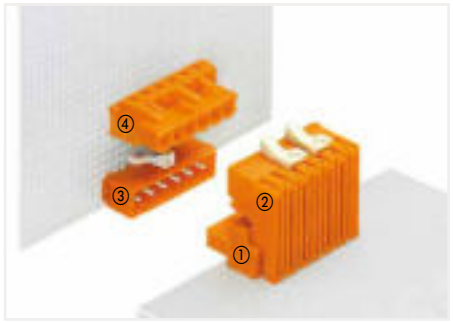
①*Male header with angled solder pins
②*Female header with angled solder pins



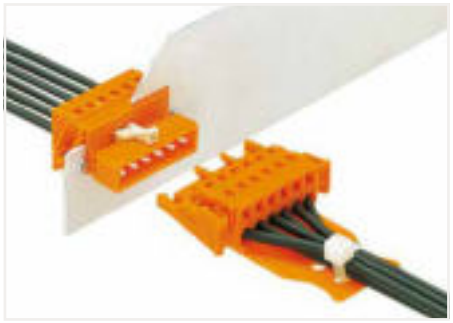
①*Female connector with mounting flanges and CAGE CLAMP®
②*Male connector with CAGE CLAMP®



① Male header with angled solder pins
② Male header for double-deck assembly
③ Female header with straight solder pins



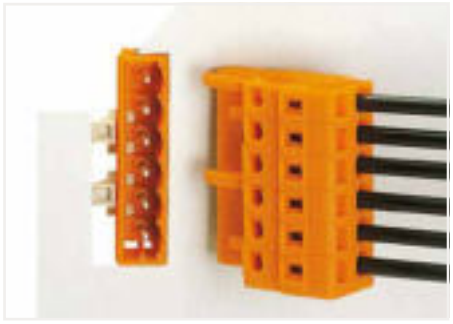
① Female header with angled solder pins
② Male header for double-deck assembly
③ Male header with straight solder pins
④ Female header with straight solder pins



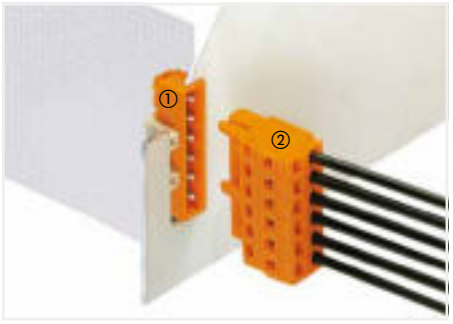
Female connector with locking levers and strain relief plate

*also available in version "100 % protected against mismating" (see Section 5); Cutout dimensions, see page 510

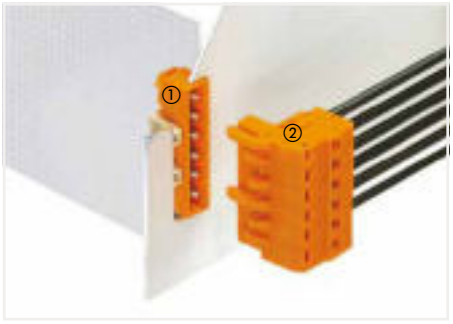
Application Examples
PCB Panel Feedthrough Headers



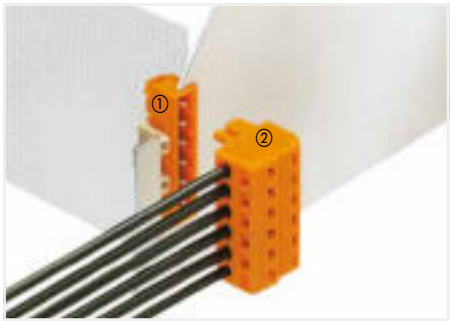
Panel feedthrough male header in large cutout
Coding via coding keys:
Coding finger(s) opposite to coding key(s) must be broken off.



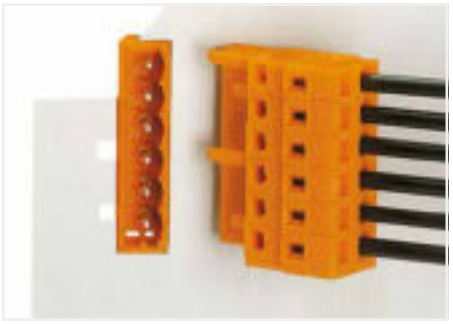
①*Male header with angled solder pins
②*Female connector with CAGE CLAMP®



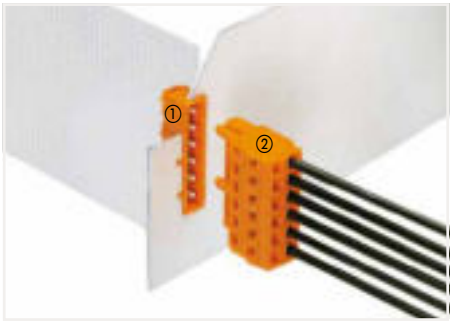
① Male header with angled solder pins
② Angled female connector, conductor entry opposite of latches



①*Male header with angled solder pins
②*Angled female connector, conductor entry same direction as latches

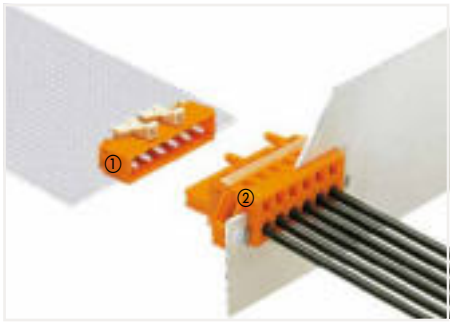


Panel feedthrough male header in small cutout
Coding via coding slots:
Leave the coding finger(s) on female connector in coding slot position(s).
Break off remaining fingers.

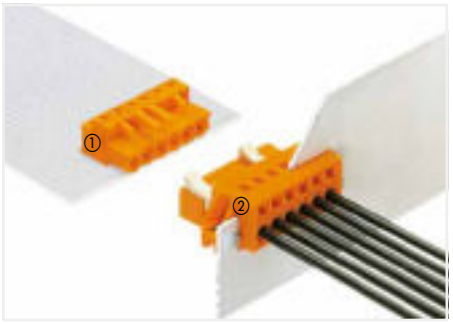


①*Male header with angled solder pins
②*Female connector with CAGE CLAMP®

Angled female connectors with mounting flanges are also available in version "100 % protected against mismating."

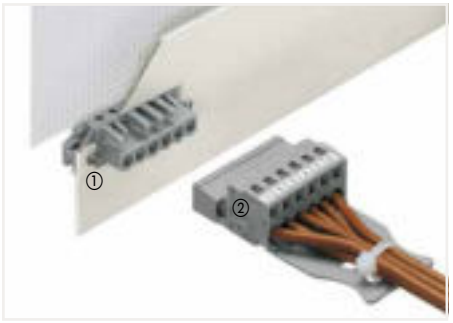


①*Male header with angled solder pins
②*Female connector with mounting flanges and CAGE CLAMP®

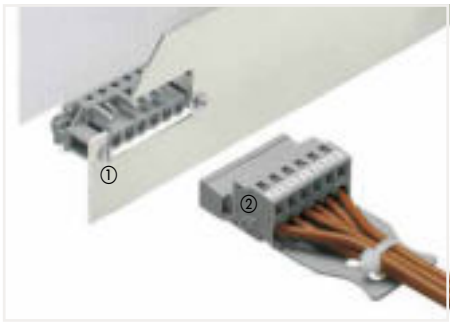


①*Female header with angled solder pins
②*Male connector with mounting flanges and CAGE CLAMP®

① Male header with mounting flanges and solder pins
② Female connector with CAGE CLAMP®
Angled female connectors with mounting flanges are also available in version "100 % protected against mismating."



①*Female header with feedthrough flanges and solder pins
②*Male connector with CAGE CLAMP®



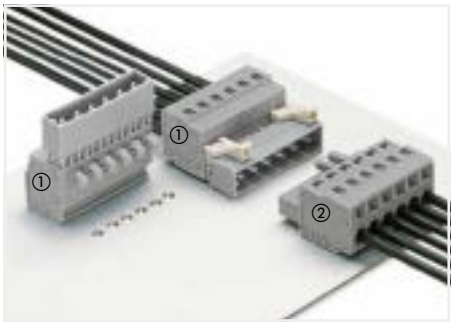
①*Female header with spacers and solder pins
②*Male connector with CAGE CLAMP®

*also available in version "100 % protected against mismating" (see Section 5); Cutout dimensions, see page 510

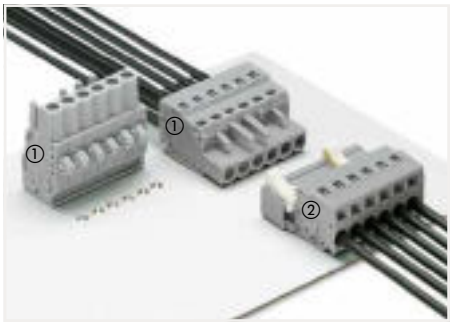
Application Examples
Connectors for Different Mounting Types and Rail-Mount Connectors
MCS MIDI Classic

①*Male connector with CAGE CLAMP®
②*Female connector with CAGE CLAMP®

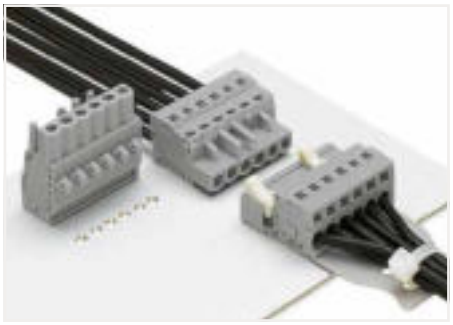
Male connector with CAGE CLAMP® and strain relief plate
Female connector with locking levers and strain relief plate



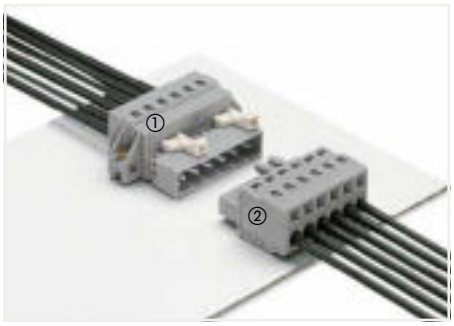
①*Male connector with snap-in mounting feet and CAGE CLAMP®
②*Female connector with CAGE CLAMP®



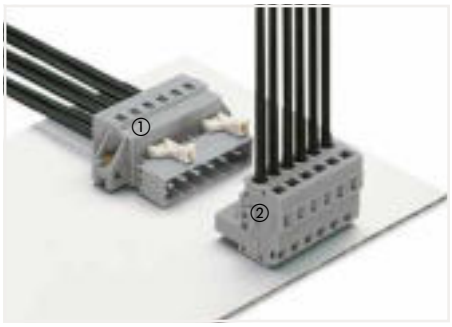
①*Female connector with snap-in mounting feet and CAGE CLAMP®
②*Male connector with CAGE CLAMP®



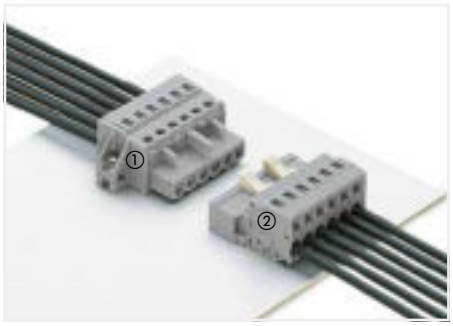
Male connector with CAGE CLAMP® and strain relief plate



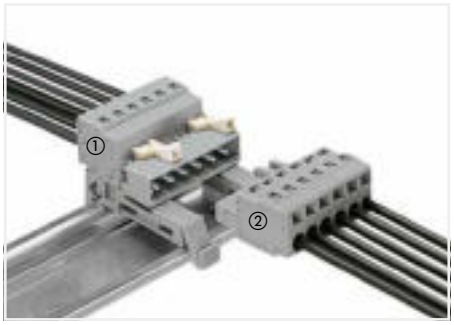
①*Male connector with mounting flanges and CAGE CLAMP®
②*Female connector with CAGE CLAMP®



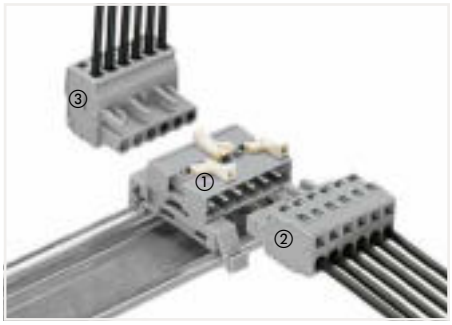
①*Male connector with mounting flanges and CAGE CLAMP®
②*Angled female connector, conductor entry same direction as latches



①*Female connector with mounting flanges and CAGE CLAMP®
②*Male connector with CAGE CLAMP®



①*Male connector with snap-in mounting feet and CAGE CLAMP®, on DIN-35 rail-mount adapters**
②*Female connector with CAGE CLAMP®
For 5/5.08 mm pin spacing, starting with 3 poles
For 7.5/7.62 mm pin spacing, starting with 2 poles



① Double-pin male connector with mounting feet, for DIN-35 rail
② Female connector with CAGE CLAMP®
③ Angled female connector with CAGE CLAMP®, conductor exit same direction as latches

① Double-pin male connector with mounting feet, for DIN-35 rail
② Female connectors with locking levers and CAGE CLAMP®

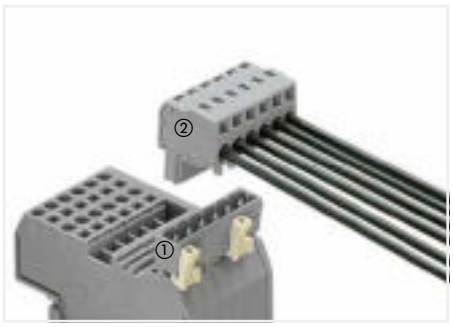
**Distance between mounting adapters: 30 … 40 mm

*also available in version "100 % protected against mismating" (see Section 5)

Application Examples
Connectors for Front-Entry, Rail-Mount Terminal Blocks
MCS MIDI Classic

①*Male connector with straight, long contact pins
②*Female connector with CAGE CLAMP®

①*Male connectors with straight, long contact pins
②*Female connectors with CAGE CLAMP®



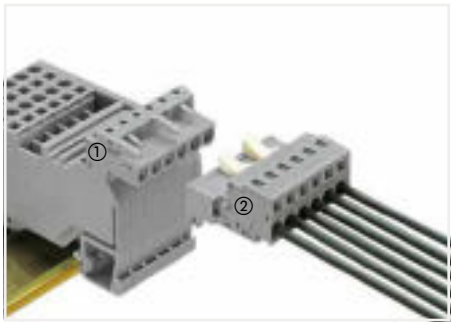
①*Male connector with straight, long contact pins
②*Angled female connector, conductor entry same direction as latches

①*Male connectors with straight, long contact pins
②*Angled female connector, conductor entry same direction as latches
③*Female connector with CAGE CLAMP®

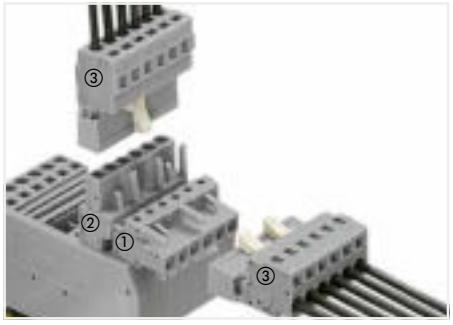
Female connector with strain relief plate
Angled female connector with strain relief plate

①*Female connector with straight, long contact pins
②*Male connector with CAGE CLAMP®

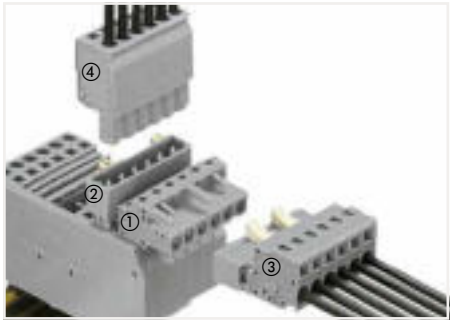
①*Male connector with straight, long contact pins
②*Female connector with straight, long contact pins
③*Angled female connector, conductor entry same direction as latches
④*Male connector with CAGE CLAMP®



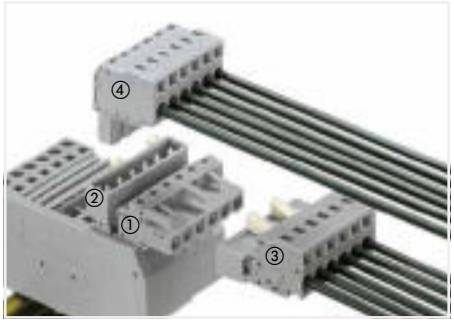
①*Female connector with angled, long contact pins
②*Male connector with CAGE CLAMP®



①*Female connector with angled, long contact pins
②*Female connector with straight, long contact pins
③*Male connectors with CAGE CLAMP®

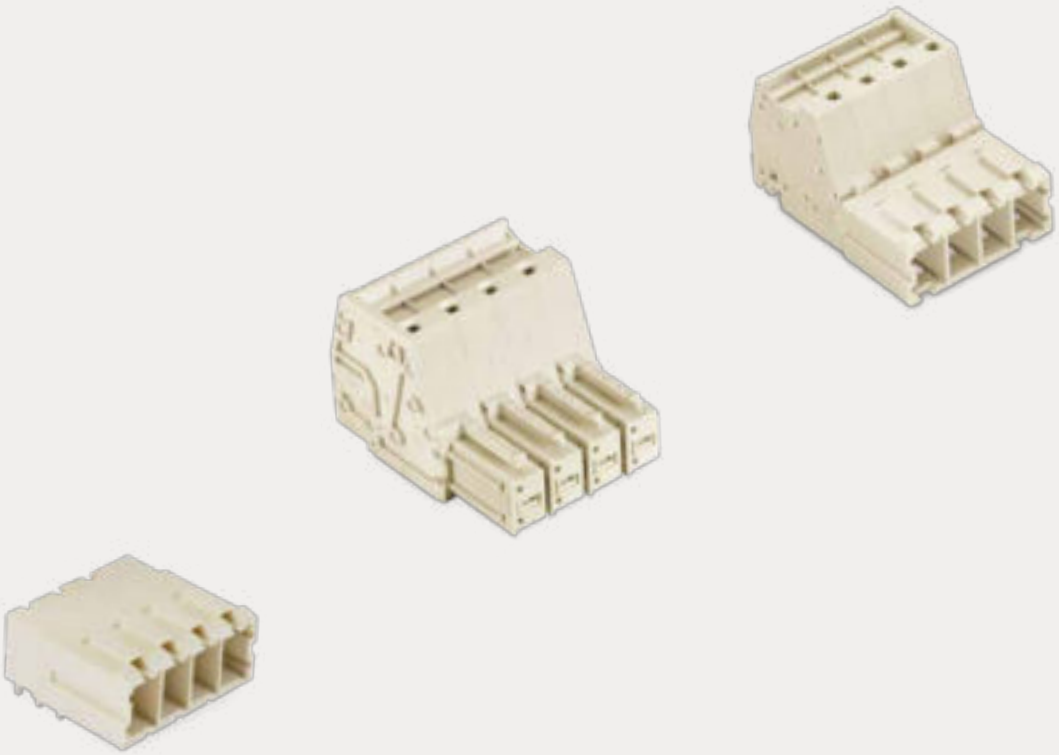


①*Female connector with angled, long contact pins
②*Male connector with straight, long contact pins
③*Male connector with CAGE CLAMP®
④*Female connector with CAGE CLAMP®



① Female connector with angled, long contact pins
② Male connector with straight, long contact pins
③ Male connector with CAGE CLAMP®
④ Angled female connector, conductor entry opposite of latches

*also available in version "100 % protected against mismating" (see Section 5)



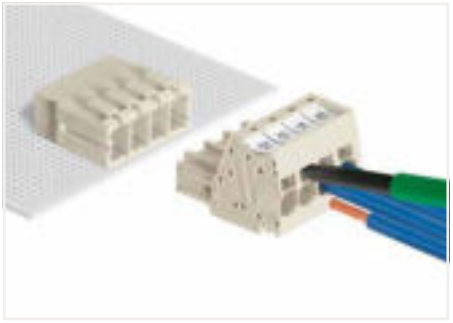
WAGO *MULTI CONNECTION SYSTEM* MAXI

Connectors / Headers
WAGO *MULTI CONNECTION SYSTEM* MAXI 6 ▸ Pin Spacing: 7.62 mm ▸ 10 mm²
WAGO *MULTI CONNECTION SYSTEM* MAXI 16 ▸ Pin Spacing: 10.16 mm ▸ 16 mm²

		Nominal Cross-Section	Page
	MCS MAXI 6 1-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	7,62 mm	752
	MCS MAXI 6 1-Conductor Female Connectors ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP®	7,62 mm	754
	MCS MAXI 6 1-Conductor Male Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	7,62 mm	758
	MCS MAXI 6 1-Conductor Male Connectors ▸ Actuation type: Lever▸ Push-in CAGE CLAMP®	7,62 mm	760
	MCS MAXI 6 THT Female Headers	7,62 mm	762
	MCS MAXI 6 THT Male Headers	7,62 mm	764
	MCS MAXI 16 1-Conductor Female Connectors ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP®	10,16 mm	768
	MCS MAXI 16 1-Conductor Male Connectors ▸ Actuation type: Lever▸ Push-in CAGE CLAMP®	10,16 mm	772
	MCS MAXI 16 THT Male Headers	10,16 mm	774
	MCS MAXI Accessories Accessories and Tools		776 861

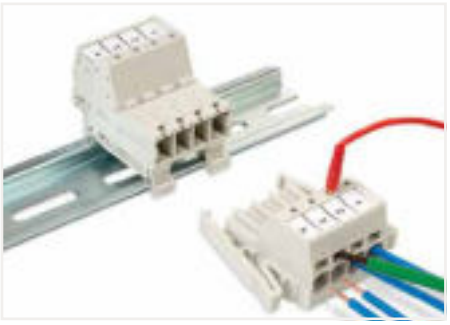
PUSH-IN CAGE CLAMP®

MCS MAXI 6
Description and Installation

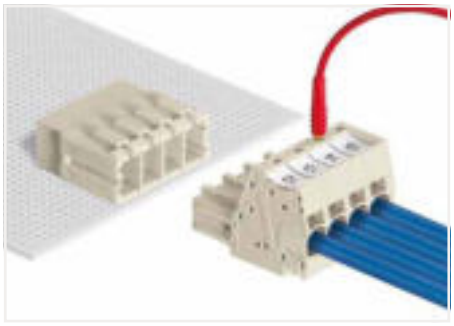


Inserting fine-stranded conductors via (5.5 x 0.8) mm screwdriver.

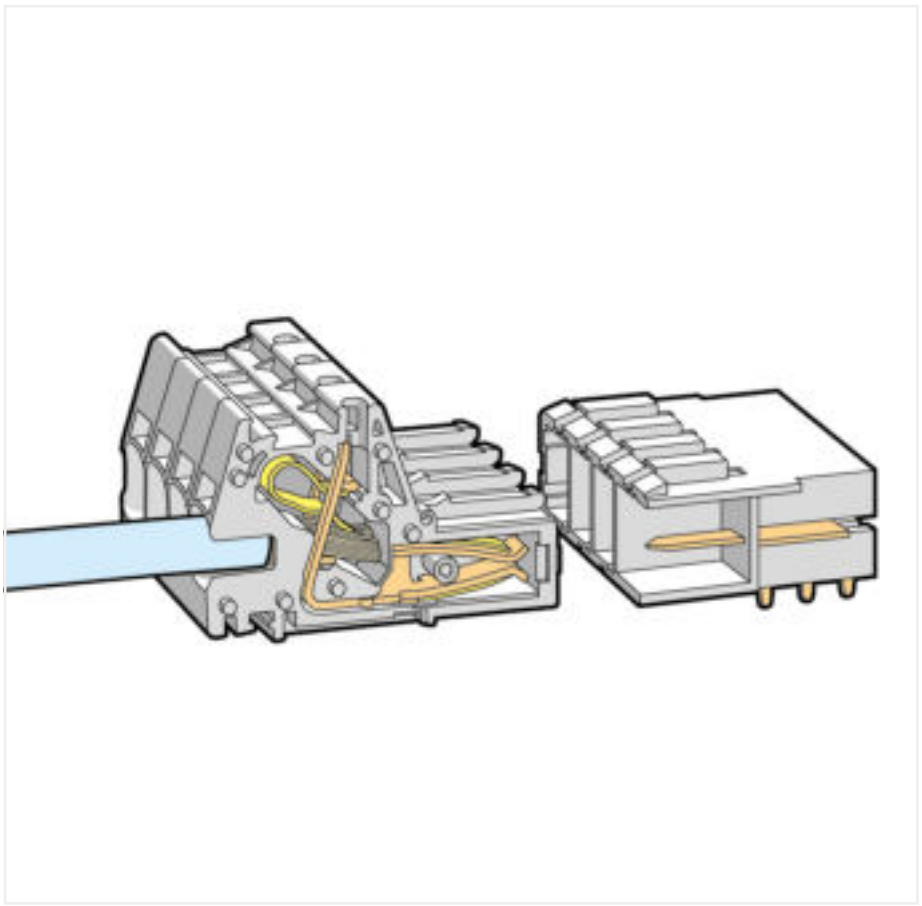
Inserting solid and ferruled conductors via push-in termination.



Male connector mounted on a DIN-35 rail via integrated mounting adapter.



Testing with 2 mm Ø test plug.

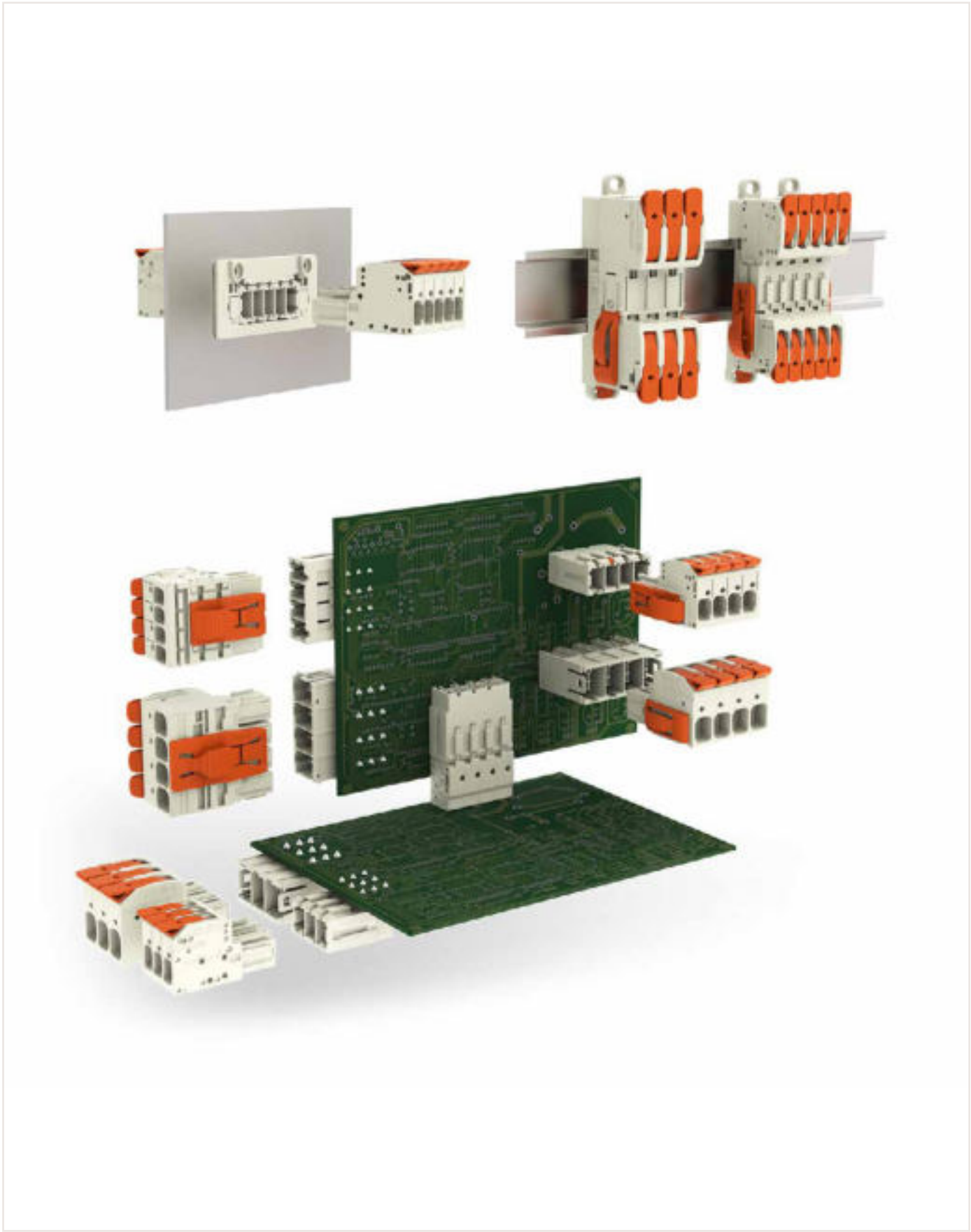


Break or cut off coding pin from female connector.

Insert coding pin into male header (break first) until it engages.

Marking via WMB or Mini-WSB marking strips.

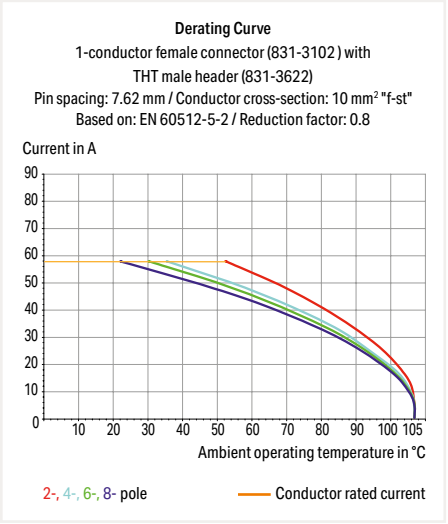
Labeling via direct marking.



1-conductor female plug ▶ *MCS* MAXI 6 ▶ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Color: light gray

- Universal connection for all conductor types
- Push-in termination of solid or ferruled conductors
- Integrated test ports for 2 mm Ø test plugs
- 600 V UL per UL 1059
- 100 % protected against mismating
- Coding via coding fingers



Electrical Data				
Ratings per		IEC/EN 60664-1		
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	800 V	1000 V	1000 V	
Rated impulse voltage	8 kV	8 kV	8 kV	
Rated current	41 A	41 A	41 A	
Approbations per		UL 1059		
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	42 A	-	
Approbations per		CSA		
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	41 A	-	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Marking	Page 779
Strain relief	Page 776
Test and measurement	Page 886
Tool	Page 870
Direct marking	Page 784

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

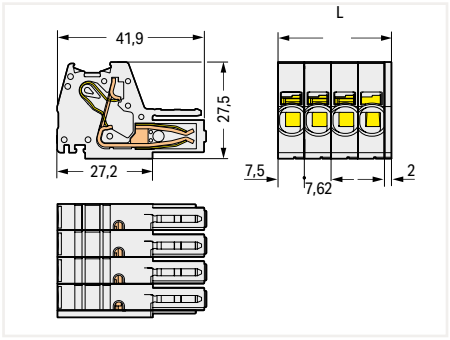
1-conductor female plug ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: Locking lever	Locking of plug-in connection: Screw flange
831-3104	831-3104/037-000	831-3102/107-000

Pole No.	Item No.	PU
2	831-3102	48
3	831-3103	48
4	831-3104	24
5	831-3105	24
6	831-3106	24
7	831-3107	12
8	831-3108	12
9	831-3109	12

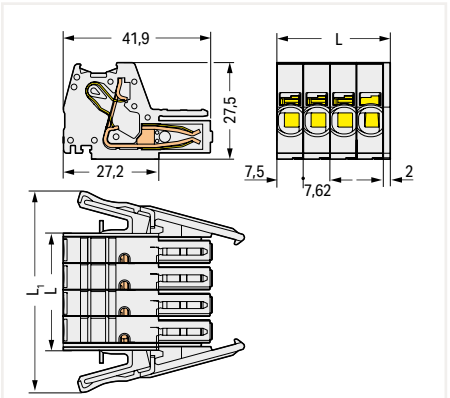
Dimensions in mm



L = (pole no. – 1) x pin spacing + 9.5 mm

Pole No.	Item No.	PU
2	831-3102/037-000	24
3	831-3103/037-000	24
4	831-3104/037-000	12
5	831-3105/037-000	12
6	831-3106/037-000	12
7	831-3107/037-000	12
8	831-3108/037-000	12
9	831-3109/037-000	12

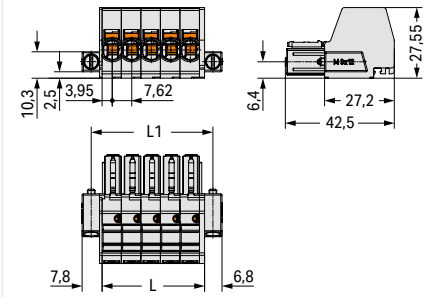
Dimensions in mm



L = (pole no. – 1) x pin spacing + 10.5 mm
L_1 = L + 23.7 mm

Pole No.	Item No.	PU
2	831-3102/107-000	24
3	831-3103/107-000	24
4	831-3104/107-000	24
5	831-3105/107-000	24
6	831-3106/107-000	12
7	831-3107/107-000	12
8	831-3108/107-000	12
9	831-3109/107-000	12

Dimensions in mm



L = pole no. x pin spacing +1.9 mm
L1 = L + 7.5 mm

10

PU = Packaging Unit; SPU = Subpackaging Unit

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

1-conductor female plug ▶ *MCS* MAXI 6 ▶ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Actuation type: Lever ▶ Push-in CAGE CLAMP® ▶ Color: light gray

- Intuitive and tool-free lever actuation
- Universal connection for all conductor types
- Push-in terminations of solid and ferruled conductors
- Test slot 0° and 90° to conductor entry
- 100 % protected against mismating
- Coding via coding fingers

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A
Approbations per		UL 1059	
Use group	B	C	D
Rated voltage	-	600 V	600 V
Rated current	-	35 A	5 A
Approbations per		CSA	
Use group	B	C	D
Rated voltage	-	600 V	600 V
Rated current	-	35 A	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	11 … 13 mm / 0.43 … 0.51 inch
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

10

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Mounting adapter	Page 782

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

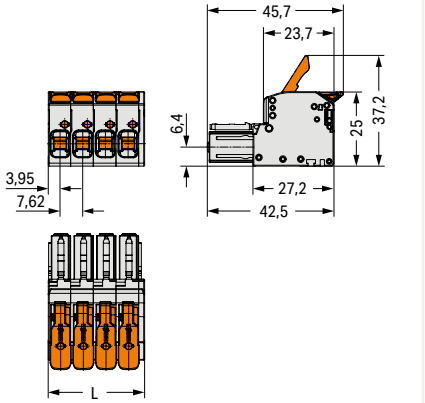
1-conductor female plug ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: Locking lever	Locking of plug-in connection: Lateral locking lever

831-1102

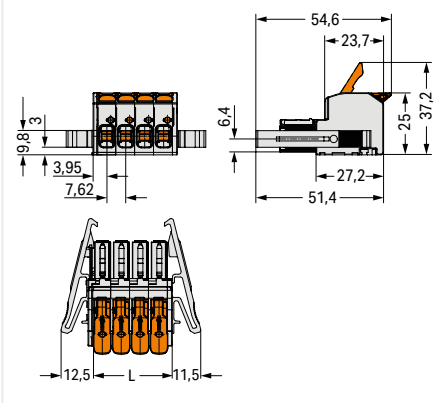
Pole No.	Item No.	PU
2	831-1102	48
3	831-1103	48
4	831-1104	24
5	831-1105	24
6	831-1106	24
7	831-1107	12
8	831-1108	12
9	831-1109	12



L = pole no. x pin spacing + 1.9 mm

831-1102/037-000

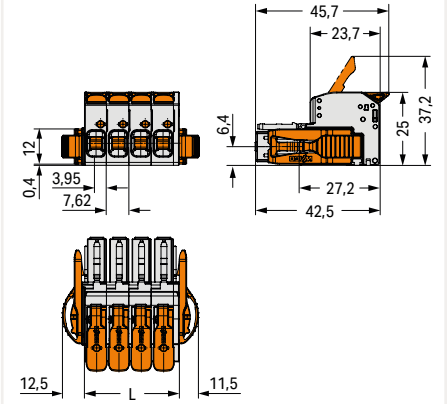
Pole No.	Item No.	PU
2	831-1102/037-000	24
3	831-1103/037-000	24
4	831-1104/037-000	12
5	831-1105/037-000	12
6	831-1106/037-000	12
7	831-1107/037-000	12
8	831-1108/037-000	12
9	831-1109/037-000	12



L = pole no. x pin spacing + 1.9 mm

831-1102/038-000

Pole No.	Item No.	PU
2	831-1102/038-000	24
3	831-1103/038-000	24
4	831-1104/038-000	12
5	831-1105/038-000	12
6	831-1106/038-000	12
7	831-1107/038-000	12
8	831-1108/038-000	12
9	831-1109/038-000	12



L = pole no. x pin spacing + 1.9 mm

10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors

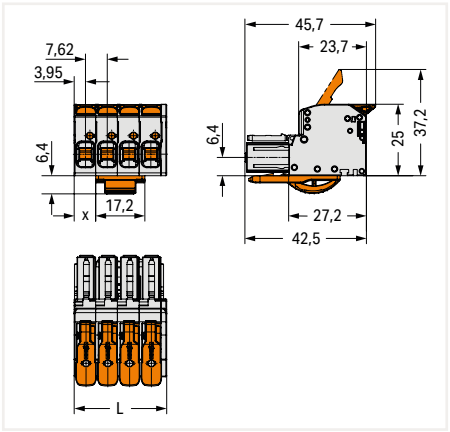
1-conductor female plug ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

Locking of plug-in connection: Center locking lever

831-1102/322-000

Pole No.	Item No.	PU
2	831-1102/322-000	24
6	831-1106/322-000	12
7	831-1107/322-000	6
8	831-1108/322-000	6
9	831-1109/322-000	6

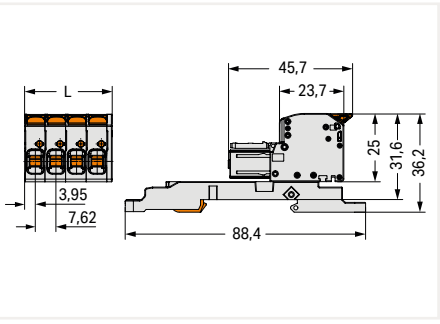


L = pole no. x pin spacing + 1.9 mm
Pole No. 2: x = 0.1 mm
Pole No. 3: x = 7.5 mm
Pole No. 4: x = 7.5 mm
Pole No. 5: x = 15.12 mm
Pole No. 6: x = 15.12 mm
Pole No. 7: x = 22.74 mm
Pole No. 8: x = 22.74 mm
Pole No. 9: x = 30.36 mm

Mounting type: DIN-35 rail;Panel mounting

831-1102/306-000

Pole No.	Item No.	PU
2	831-1102/306-000	12
3	831-1103/306-000	12
4	831-1104/306-000	6
5	831-1105/306-000	6
6	831-1106/306-000	6
7	831-1107/306-000	6
8	831-1108/306-000	6
9	831-1109/306-000	6

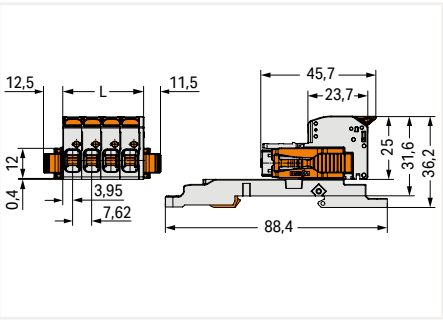


L = pole no. x pin spacing +1.9 mm

Mounting type: DIN-35 rail;Panel mounting ▸ Locking of plug-in connection: Lateral locking lever

831-1102/038-000/306-000

Pole No.	Item No.	PU
2	831-1102/038-000/306-000	12
3	831-1103/038-000/306-000	12
4	831-1104/038-000/306-000	6
5	831-1105/038-000/306-000	6
6	831-1106/038-000/306-000	6
7	831-1107/038-000/306-000	6
8	831-1108/038-000/306-000	6
9	831-1109/038-000/306-000	6



L = pole no. x pin spacing +1.9 mm

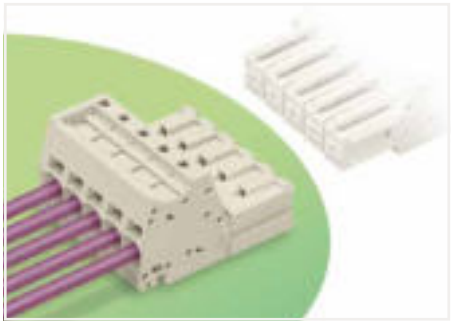
10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

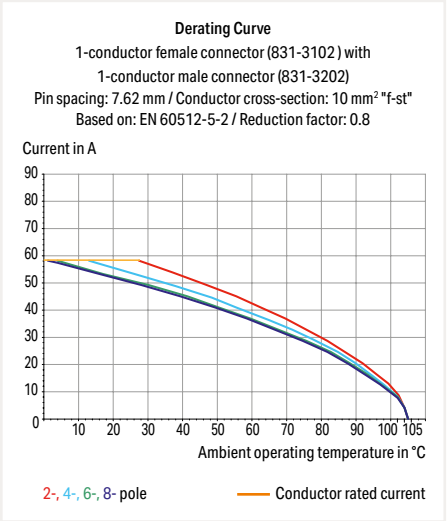
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other colors

1-conductor male connector ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Push-in termination of solid or ferruled conductors
- Integrated test ports for 2 mm Ø test plugs
- 600 V UL per UL 1059
- 100 % protected against mismating
- Coding via coding fingers



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	800 V	1000 V	1000 V	
Rated impulse voltage	8 kV	8 kV	8 kV	
Rated current	41 A	41 A	41 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	42 A	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	41 A	-	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 777
Ferrule	Page 879
Marking	Page 779
Mounting	Page 778
Strain relief	Page 776
Test and measurement	Page 886
Tool	Page 870
Direct marking	Page 784

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

1-conductor male connector ▸ *MCS* MAXI 6 ▸ 831 Series

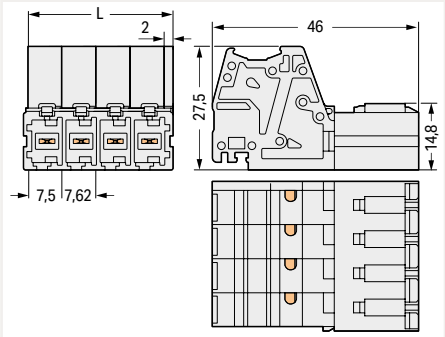
Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: Threaded flange	Mounting type: DIN-35 rail

831-3202

Pole No.	Item No.	PU
2	831-3202	48
3	831-3203	24
4	831-3204	24
5	831-3205	24
6	831-3206	24
7	831-3207	12
8	831-3208	12
9	831-3209	12

Dimensions in mm

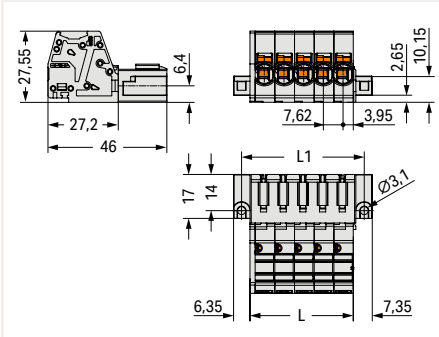


L = (pole no. – 1) x pin spacing + 9.5 mm

831-3202/109-000

Pole No.	Item No.	PU
2	831-3202/109-000	24
3	831-3203/109-000	24
4	831-3204/109-000	24
5	831-3205/109-000	24
6	831-3206/109-000	12
7	831-3207/109-000	12
8	831-3208/109-000	12
9	831-3209/109-000	12

Dimensions in mm

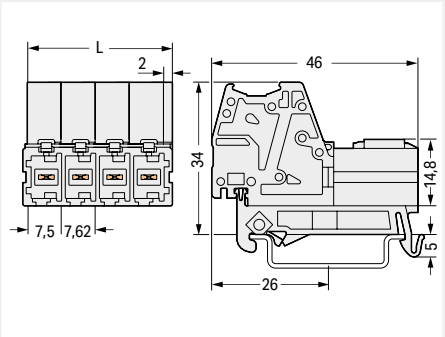


L = pole no. x pin spacing +1.9 mm
L1 = L + 7.5 mm

831-3204/007-000

Pole No.	Item No.	PU
2	831-3202/007-000	48
3	831-3203/007-000	48
4	831-3204/007-000	24
5	831-3205/007-000	24
6	831-3206/007-000	24
7	831-3207/007-000	12
8	831-3208/007-000	12
9	831-3209/007-000	12

Dimensions in mm



L = (pole no. – 1) x pin spacing + 9.5 mm

10

PU = Packaging Unit; SPU = Subpackaging Unit

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

1-conductor male connector ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

- Intuitive and tool-free lever actuation
- Universal connection for all conductor types
- Push-in terminations of solid and ferruled conductors
- Test slot 0° and 90° to conductor entry
- 100 % protected against mismating
- Coding via coding fingers

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	800 V	1000 V	1000 V	
Rated impulse voltage	8 kV	8 kV	8 kV	
Rated current	41 A	41 A	41 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	11 … 13 mm / 0.43 … 0.51 inch
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 6 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

10

Available April 2021

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 879
Mounting adapter	Page 782

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

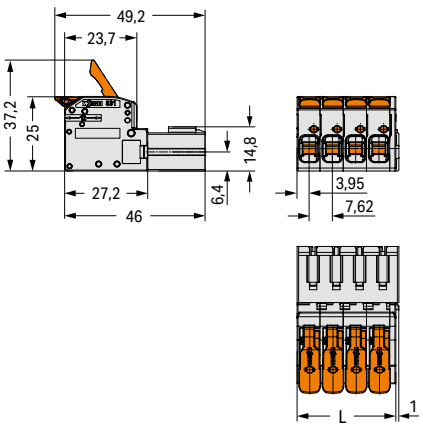
1-conductor male connector ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

Mounting type: DIN-35 rail;Panel mounting

831-1202

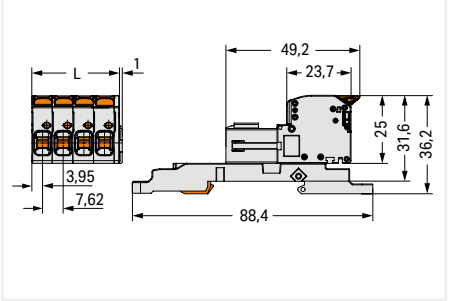
Pole No.	Item No.	PU
2	831-1202	48
3	831-1203	24
4	831-1204	24
5	831-1205	24
6	831-1206	24
7	831-1207	12
8	831-1208	12
9	831-1209	12



L = pole no. x pin spacing + 1.9 mm

831-1202/306-000

Pole No.	Item No.	PU
2	831-1202/306-000	12
3	831-1203/306-000	12
4	831-1204/306-000	6
5	831-1205/306-000	6
6	831-1206/306-000	6
7	831-1207/306-000	6
8	831-1208/306-000	6
9	831-1209/306-000	6



L = pole no. x pin spacing + 1.9 mm

10

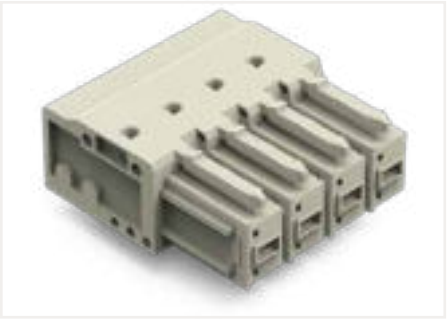
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other colors

THT female header ▶ *MCS* MAXI 6 ▶ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▶ Solder pin dimensions: 1 x 1.2 mm ▶ Color: light gray



- Female headers may be mounted horizontally or vertically via straight or angled solder pins
- Three solder pins per pole provide high electrical and mechanical stability
- 100 % protected against mismating
- Coding via coding fingers

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	41 A	41 A	41 A	

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector (in-line)
Solder pin length	4 mm
Solder pin dimensions	1 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

10

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

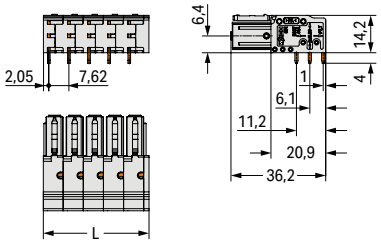
THT female header ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 1 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0 °

831-3522

Pole No.	Item No.	PU
2	831-3522	48
3	831-3523	24
4	831-3524	24
5	831-3525	24
6	831-3526	24
7	831-3527	12
8	831-3528	12
9	831-3529	12

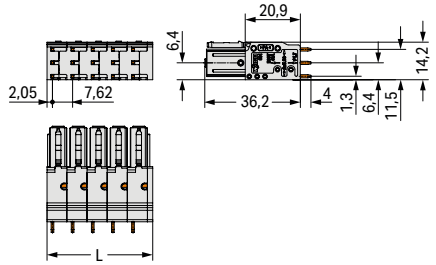


L = pole no. x pin spacing + 1.9 mm

Mating direction to the PCB: 90 °

831-3502

Pole No.	Item No.	PU
2	831-3502	48
3	831-3503	24
4	831-3504	24
5	831-3505	24
6	831-3506	24
7	831-3507	12
8	831-3508	12
9	831-3509	12



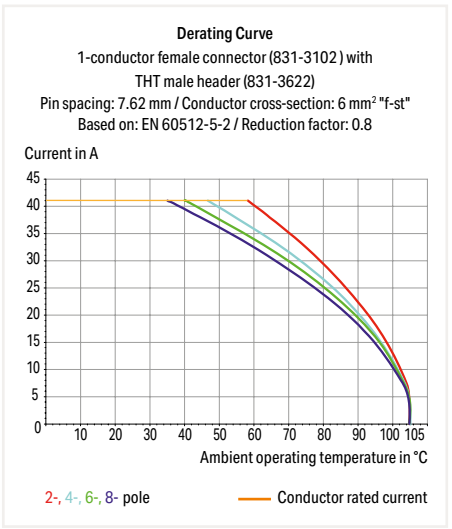
L = pole no. x pin spacing + 1.9 mm

10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THT male header ▸ *MCS* MAXI 6 ▸ 831 Series
Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 1 x 1.2 mm ▸ Color: light gray

- Male headers may be mounted horizontally or vertically via straight or angled solder pins
- Three solder pins per pole provide high electrical and mechanical stability
- 100 % protected against mismating
- Coding via coding fingers



Electrical Data				
Ratings per		IEC/EN 60664-1		
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	41 A	41 A	41 A	
Approbations per		UL 1059		
Use group	B	C	D	
Rated voltage	-	300 V	600 V	
Rated current	-	42 A	5 A	
Approbations per		CSA		
Use group	B	C	D	
Rated voltage	-	300 V	600 V	
Rated current	-	41 A	5 A	

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	4 mm
Solder pin dimensions	1 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

10

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 777

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

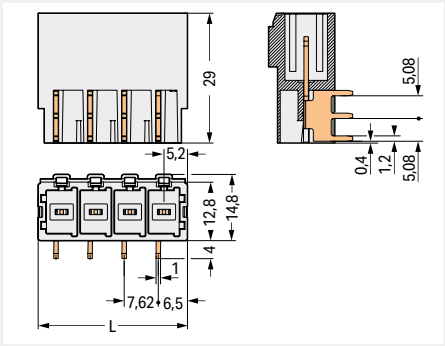
THT male header ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 1 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0 °

831-3622

Pole No.	Item No.	PU
2	831-3622	48
3	831-3623	48
4	831-3624	24
5	831-3625	24
6	831-3626	24
7	831-3627	12
8	831-3628	12
9	831-3629	12

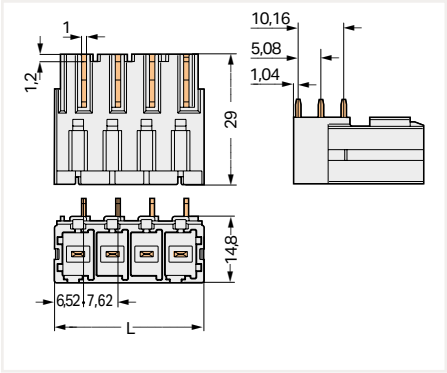


L = (pole no. – 1) x pin spacing + 10.5 mm

Mating direction to the PCB: 180 °

831-3642

Pole No.	Item No.	PU
2	831-3642	48
3	831-3643	48
4	831-3644	24
5	831-3645	24
6	831-3646	24
7	831-3647	12
8	831-3648	12
9	831-3649	12

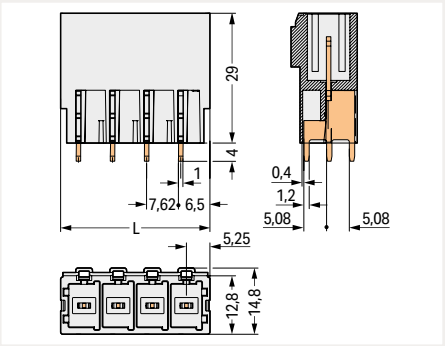


L = (pole no. – 1) x pin spacing + 10.5 mm

Mating direction to the PCB: 90 °

831-3602

Pole No.	Item No.	PU
2	831-3602	48
3	831-3603	48
4	831-3604	24
5	831-3605	24
6	831-3606	24
7	831-3607	12
8	831-3608	12
9	831-3609	12



L = (pole no. – 1) x pin spacing + 10.5 mm

10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Protection against PCB mounting errors

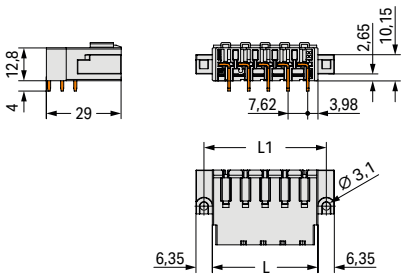
THT male header ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm / 0.3 inch ▸ Solder pin dimensions: 1 x 1.2 mm ▸ Color: light gray

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0 °

831-3622/108-000

Pole No.	Item No.	PU
2	831-3622/108-000	48
3	831-3623/108-000	24
4	831-3624/108-000	24
5	831-3625/108-000	24
6	831-3626/108-000	24
7	831-3627/108-000	12
8	831-3628/108-000	12
9	831-3629/108-000	12

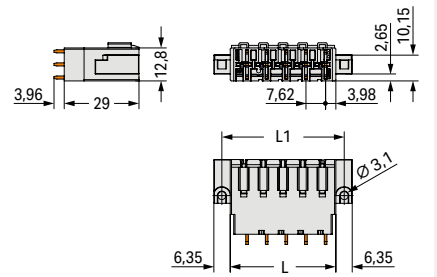


L = pole no. x pin spacing +2.9 mm
L1 = L + 6.5 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90 °

831-3602/108-000

Pole No.	Item No.	PU
2	831-3602/108-000	48
3	831-3603/108-000	24
4	831-3604/108-000	24
5	831-3605/108-000	24
6	831-3606/108-000	24
7	831-3607/108-000	12
8	831-3608/108-000	12
9	831-3609/108-000	12



L = pole no. x pin spacing +2.9 mm
L1 = L + 6.5 mm

10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

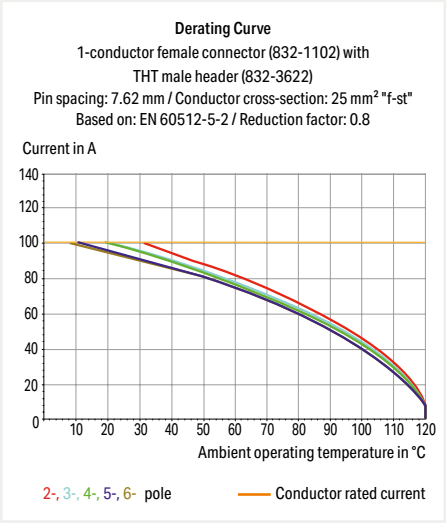
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Protection against PCB mounting errors

1-conductor female plug ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm / 0.4 inch ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

- Intuitive and tool-free lever actuation
- Universal connection for all conductor types
- Push-in termination of solid or ferruled conductors
- Test slot 0° and 90° to conductor entry
- 100% protected against mismating
- Coding option available



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A
Approbations per		UL 1059	
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	66 A	66 A	-
Approbations per		UL 1977	
Rated voltage	600 V		
Rated current	85 A		
Approbations per		CSA	
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	66 A	66 A	-

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor; with insulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with uninsulated ferrule	0.75 … 16 mm²

Material Data

Material group	I
Insulation material	Polybutylene terephthalate (PBT)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Silver-plated

Environmental Requirements

Limit temperature range	-60 … +120 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 777
Ferrule	Page 879
Locking system	Page 781
Mounting adapter	Page 782
Strain relief	Page 780

See technical section for further information

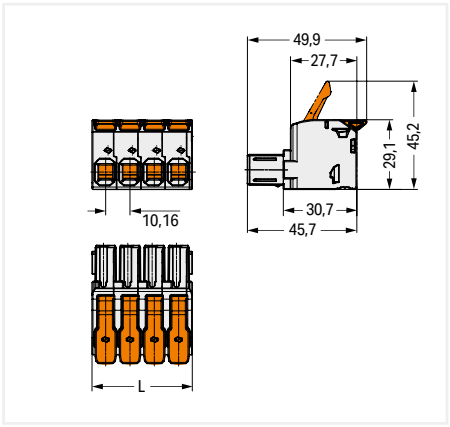
For approvals and corresponding ratings, visit www.wago.com

1-conductor female plug ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm / 0.4 inch ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

832-1102

Pole No.	Item No.	PU
2	832-1102	60
3	832-1103	45
4	832-1104	20
5	832-1105	20
6	832-1106	10

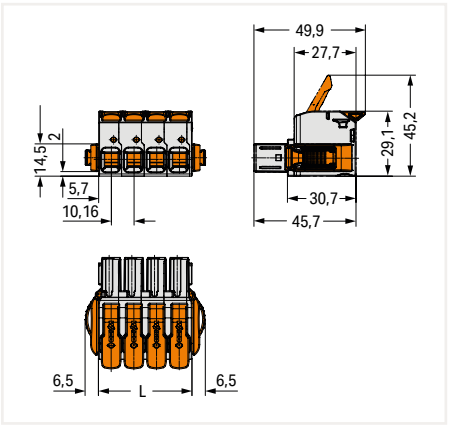


L = (pole no. x pin spacing) + 1.3 mm

Locking of plug-in connection: Lateral locking lever

832-1102/037-000

Pole No.	Item No.	PU
2	832-1102/037-000	20
3	832-1103/037-000	15
4	832-1104/037-000	10
5	832-1105/037-000	10
6	832-1106/037-000	10

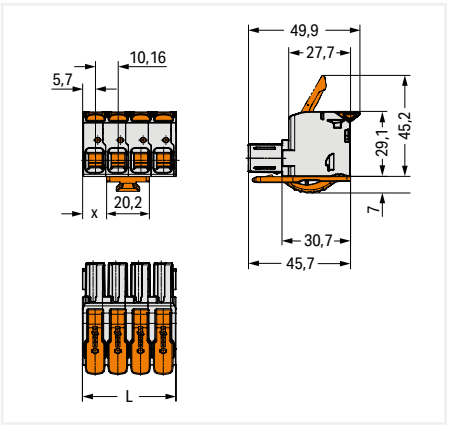


L = (pole no. x pin spacing) + 1.3 mm

Locking of plug-in connection: Center locking lever

832-1102/322-000

Pole No.	Item No.	PU
2	832-1102/322-000	20
3	832-1103/323-000	15
4	832-1104/322-000	10
5	832-1105/323-000	10
6	832-1106/322-000	5



L = (pole no. x pin spacing) + 1.3 mm

10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

1-conductor female plug ▸ *MCS* MAXI 16 ▸ 832 Series

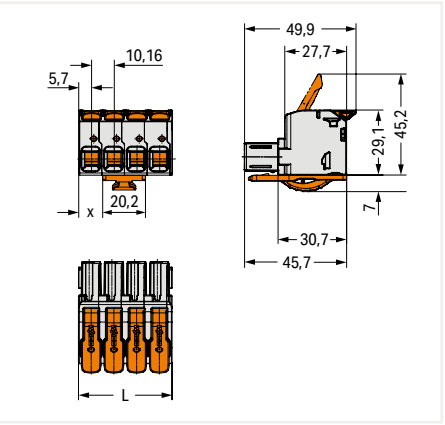
Pin spacing: 10.16 mm / 0.4 inch ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

Locking of plug-in connection: Center locking lever ▸ Strain relief plate

832-1102/342-000

Pole No.	Item No.	PU
2	832-1102/342-000	20
3	832-1103/343-000	15
4	832-1104/344-000	10
5	832-1105/345-000	10
6	832-1106/344-000	5

Dimensions in mm



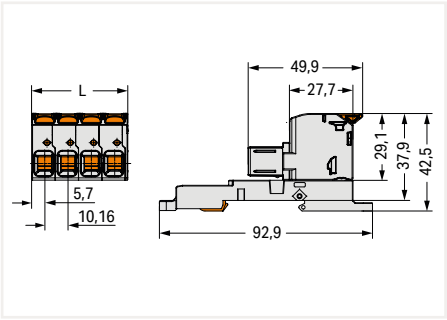
L = (pole no. x pin spacing) + 1.3 mm

Mounting type: DIN-35 rail;Panel mounting

832-1102/306-000

Pole No.	Item No.	PU
2	832-1102/306-000	5
3	832-1103/306-000	5
4	832-1104/306-000	5
5	832-1105/306-000	5
6	832-1106/306-000	5

Dimensions in mm



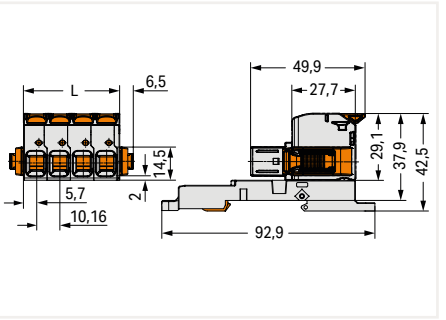
L = pole no. x pin spacing + 1.3 mm

Mounting type: DIN-35 rail;Panel mounting ▸ Locking of plug-in connection: Lateral locking lever

832-1102/037-000/306-000

Pole No.	Item No.	PU
2	832-1102/037-000/306-000	5
3	832-1103/037-000/306-000	5
4	832-1104/037-000/306-000	5
5	832-1105/037-000/306-000	5
6	832-1106/037-000/306-000	5

Dimensions in mm



L = pole no. x pin spacing + 1.3 mm

10

PU = Packaging Unit; SPU = Subpackaging Unit

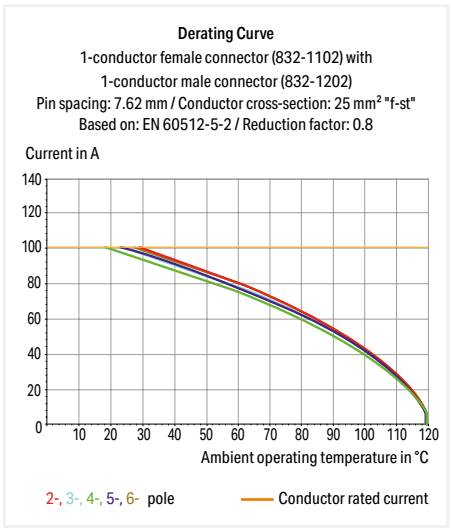
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

1-conductor male connector ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm / 0.4 inch ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

- Intuitive and tool-free lever actuation
- Universal connection for all conductor types
- Push-in termination of solid or ferruled conductors
- Test slot 0° and 90° to conductor entry
- 100% protected against mismating
- Coding option available



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	66 A	66 A	-
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	85 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	66 A	66 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor; with insulated ferrule	0.75 … 16 mm²
Fine-stranded conductor; with uninsulated ferrule	0.75 … 16 mm²

Material Data	
Material group	I
Insulation material	Polybutylene terephthalate (PBT)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Silver-plated

Environmental Requirements	
Limit temperature range	-60 … +120 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 777
Ferrule	Page 879
Strain relief	Page 780

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

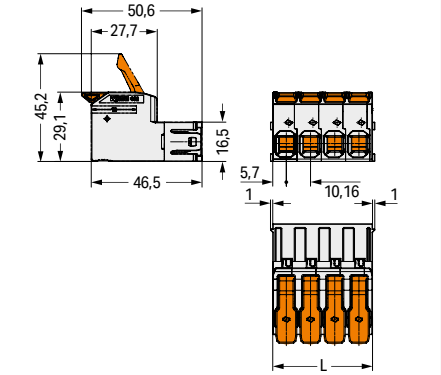
1-conductor male connector ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm / 0.4 inch ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

832-1202

Pole No.	Item No.	PU
2	832-1202	60
3	832-1203	45
4	832-1204	20
5	832-1205	20
6	832-1206	10

Dimensions in mm



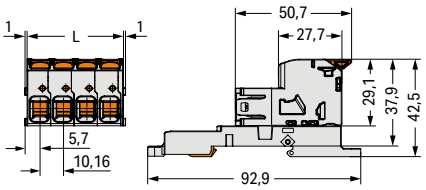
L = (pole no. x pin spacing) + 1.3 mm

Mounting type: DIN-35 rail;Panel mounting

832-1202/306-000

Pole No.	Item No.	PU
2	832-1202/306-000	10
3	832-1203/306-000	5
4	832-1204/306-000	5
5	832-1205/306-000	5
6	832-1206/306-000	5

Dimensions in mm



L = pole no. x pin spacing + 1.3 mm

10

PU = Packaging Unit; SPU = Subpackaging Unit

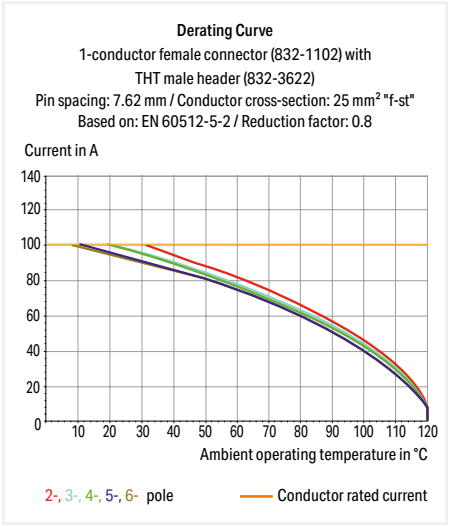
Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers

THT male header ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm / 0.4 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

- Male header may be mounted horizontally or vertically via straight or angled solder pins
- Three solder pins per pole provide high electrical and mechanical stability
- Mating face (IP2XB) with higher protection against accidental contact
- 100% protected against mismating
- Coding via coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	66 A	66 A	5 A
Approbations per	UL 1977		
Rated voltage	600 V		
Rated current	85 A		
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	66 A	66 A	5 A

Material Data	
Material group	I
Insulation material	Polybutylene terephthalate (PBT)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Silver-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector (in-line)
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +120 °C

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 777

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

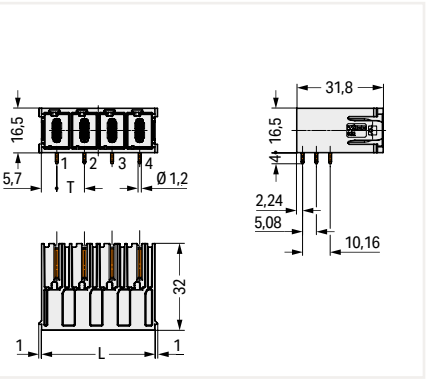
THT male header ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm / 0.4 inch ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0 °

832-3622

Pole No.	Item No.	PU
2	832-3622	60
3	832-3623	45
4	832-3624	20
5	832-3625	20
6	832-3626	10

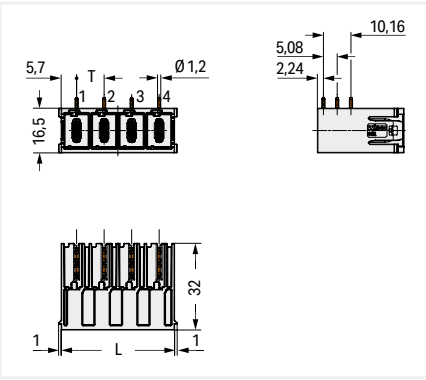


L = (pole no. x pin spacing) + 1.3 mm

Mating direction to the PCB: 180 °

832-3642

Pole No.	Item No.	PU
2	832-3642	60
3	832-3643	45
4	832-3644	20
5	832-3645	20
6	832-3646	10

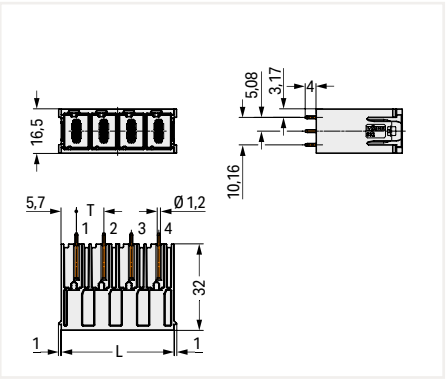


L = (pole no. x pin spacing) + 1.3 mm

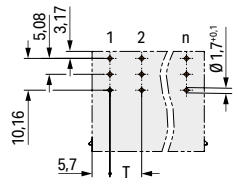
Mating direction to the PCB: 90 °

832-3602

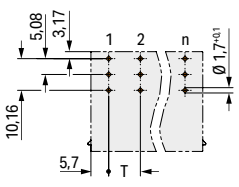
Pole No.	Item No.	PU
2	832-3602	60
3	832-3603	45
4	832-3604	20
5	832-3605	20
6	832-3606	10



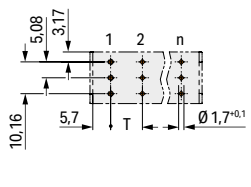
L = (pole no. x pin spacing) + 1.3 mm



L = (pole no. x pin spacing) + 1.3 mm



L = (pole no. x pin spacing) + 1.3 mm



10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

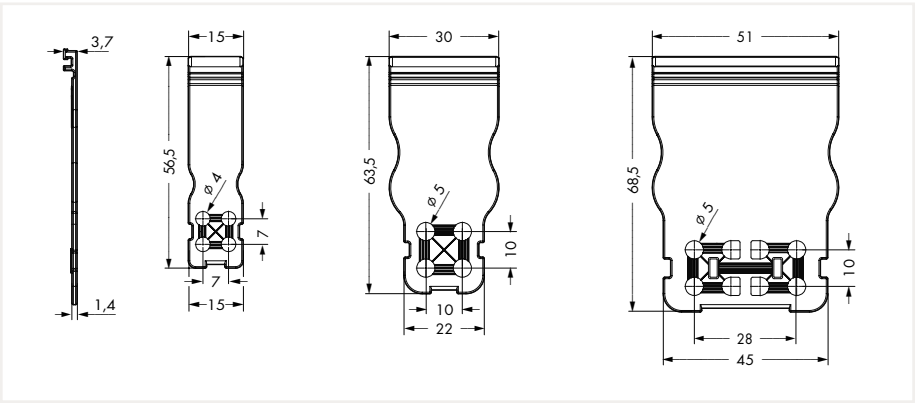
- Other pole numbers
- Protection against PCB mounting errors

Strain Relief Plates and Coding Pins
MCS MAXI 6

Strain relief plate; for inserting; light gray			
Pole No.	Width	Item No.	PU
2 … 3	15 mm	831-503	96 (24)
4 … 6	30 mm	831-505	48 (24)
7 … 9	51 mm	831-506	48 (24)

Strain relief plate; factory assembled; light gray		
Pole No.	Width	Item No. Suffix *
2 … 3	15 mm	…/133-000
4 … 6	30 mm	…/135-000
7 … 9	51 mm	…/136-000

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.



10

The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.

Strain relief plate for field assembly

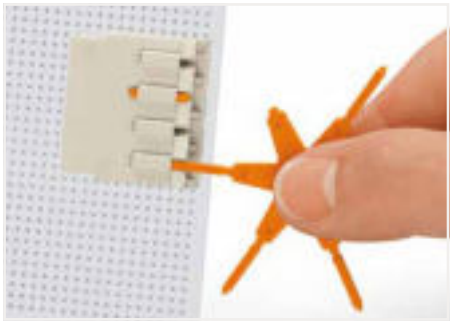
Strain relief plate; pre-assembled; 1-conductor female connector; 4-pole; 7.62 mm pin spacing; light gray (831-3104/135-000)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Coding Pins
MCS MAXI 6; *MCS* MAXI 16

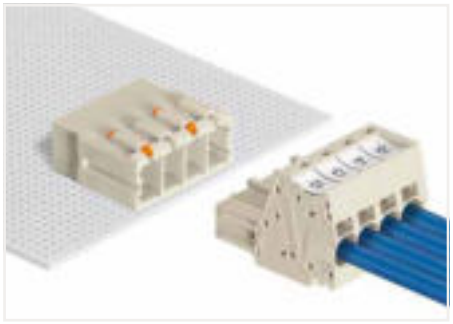
Coding pin carrier; with six coding pins; for THT male headers		
Color	**Item No.**	PU (SPU)
orange	**831-500**	100 (25)

Coding pin carrier; with six coding pins; for male and female connectors *MCS* MAXI 16		
Color	**Item No.**	PU (SPU)
orange	**832-500**	100 (25)



Coding a THT male header by inserting a coding pin.

Coding a THT male header by inserting a coding pin.



Coded connectors

10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-In Frames; Lockout Pins; Mounting Adapter
MCS MAXI 6

Snap-in frame for MCS MAXI male connectors; light gray

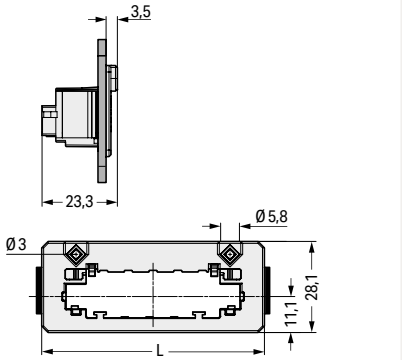
Pole No.	Width	Item-No.	PU
2	45.84 mm	**831-302**	48
3	53.46 mm	**831-303**	48
4	61.08 mm	**831-304**	24
5	68.7 mm	**831-305**	12

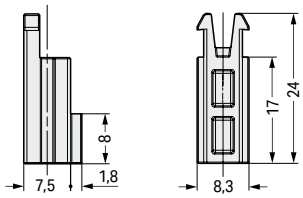
Lockout pins for snap-in frames

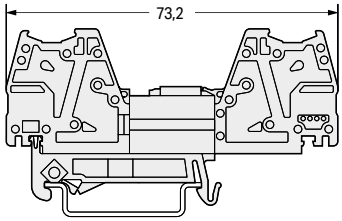
Color	Item-No.	PU
light gray	**831-321**	100

Mounting adapter for DIN-35 rail; for male connectors

Color	Item-No.	PU
light gray	**831-137**	48



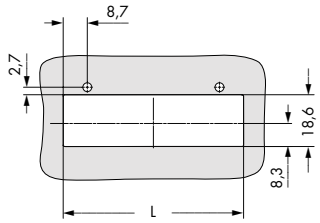




L = (pole no. x 7.62 mm) + 30.6 mm

Insert the snap-in frame into the cutout.

Insert the male connector into the snap-in frame.



L = (pole no. x 7.62 mm) + 26.8 mm
Panel cutout for snap-in frame

Inserting a female connector equipped with lateral locking levers.

Inserting a female connector without lateral locking levers – lockout pins are inserted on both sides of the snap-in frame.

- Snap-in frames for through-panel *MCS* MAXI 6 connectors
- Fast and easy installation – without tools
- Compatible with *MCS* MAXI 6 male and female connectors
- For panel thickness ranging
- Optional screw mounting

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Marking Strips
MCS MAXI 6

Marking strip; 1 ... pole no.; for marking female connectors; perpendicular to conductor entry

Pole No.	Item No.	PU
2	2009-110/762-802	100
3	2009-110/762-803	100
4	2009-110/762-804	100
5	2009-110/762-805	100
6	2009-110/762-806	100
7	2009-110/762-807	100
8	2009-110/762-808	100
9	2009-110/762-809	100

Marking strip; pole no. ... 1; for marking male connectors; perpendicular to conductor entry

Pole No.	Item No.	PU
2	2009-110/762-852	50
3	2009-110/762-853	50
4	2009-110/762-854	50
5	2009-110/762-855	50
6	2009-110/762-856	50
7	2009-110/762-857	50
8	2009-110/762-858	50
9	2009-110/762-859	50

MCS MAXI male and female connectors can also be marked via Mini-WSB or WMB markers (see Section 12).

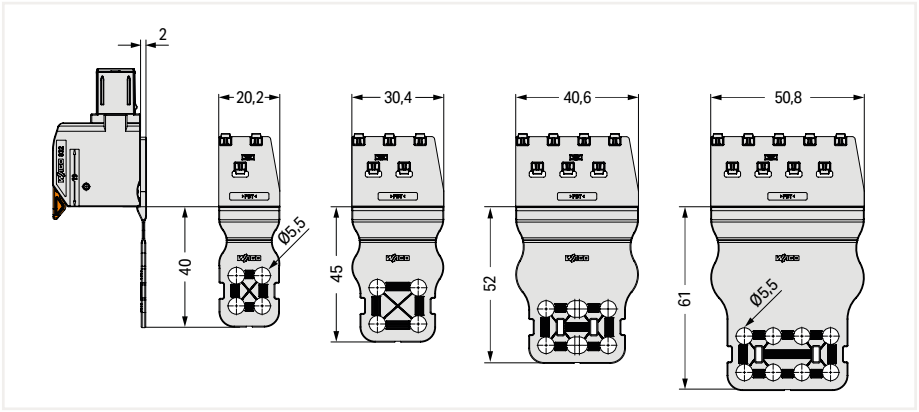
10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Available upon request (depending on quantity required):
Customized marking

Strain Relief Plate ▸ for Male and Female Connectors with Push-in CAGE CLAMP® Connection ▸
Color: light gray
MCS MAXI 16

Strain relief plate ▸ for inserting			
Pol No.	Width	Item No.	PU
2	20,2 mm	832-532	60
3	30,4 mm	832-533	45
4	40,6 mm	832-534	40
5	50,8 mm	832-535	40



The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.

Strain relief plate for field assembly

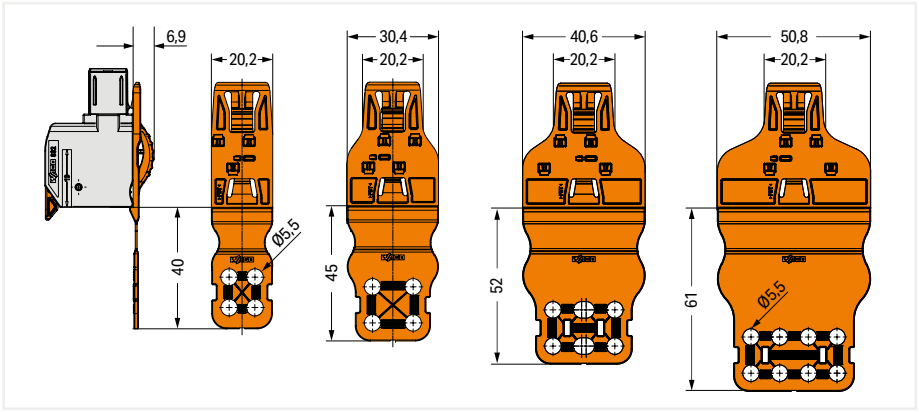
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Strain relief plate with locking lever ▸ Locking lever ▸ for Male and Female Connectors with Push-in CAGE CLAMP® Connection ▸ Color: orange

MCS MAXI 16

Strain relief plate ▸ for inserting ▸ with locking lever			
Pol No.	Width	Item No.	PU
2	20,2 mm	832-542	60
3	30,4 mm	832-543	45
4	40,6 mm	832-544	40
5	50,8 mm	832-545	40

Locking lever ▸ for inserting			
Pol No.	Width	Item No.	PU
2; 4; 6	20,2 mm	832-522	60
3; 5	20,2 mm	832-523	40



The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.

Strain relief plate with locking lever for factory assembly

Locking lever for field assembly

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Mounting Adapters ▸ for Male and Female Connectors with Push-in CAGE CLAMP® Connection

Color: light gray

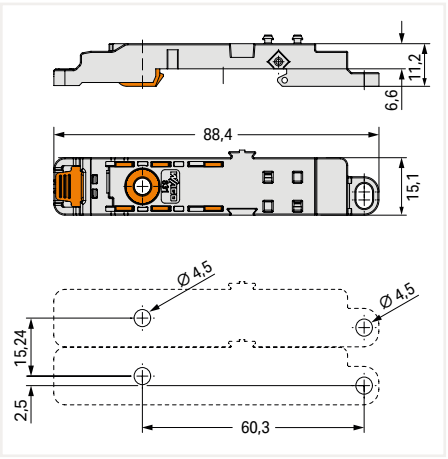
MCS MAXI 6 and *MCS* MAXI 16

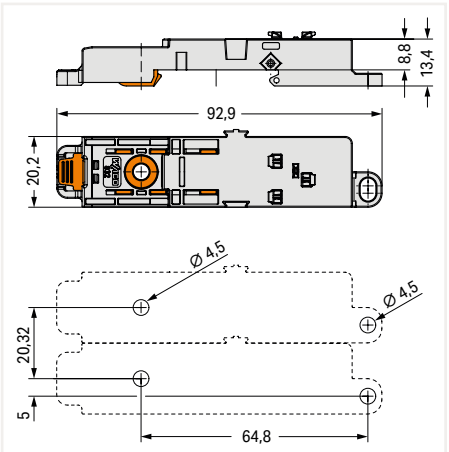
Mounting adapter ▸ for DIN-35 rail ▸ to snap on for *MCS* MAXI 6		
	Item number	PU
	831-1032	12

Mounting adapter ▸ for DIN-35 rail ▸ to snap on for *MCS* MAXI 16		
	Item number	PU
	832-1032	10

Mounting adapter ▸ for DIN-35 rail ▸ to snap on with locking plate for *MCS* MAXI 6		
	Item number	PU
	831-1038	12

Mounting adapter ▸ for DIN-35 rail ▸ to snap on with locking plate for *MCS* MAXI 16		
	Item number	PU
	832-1038	10





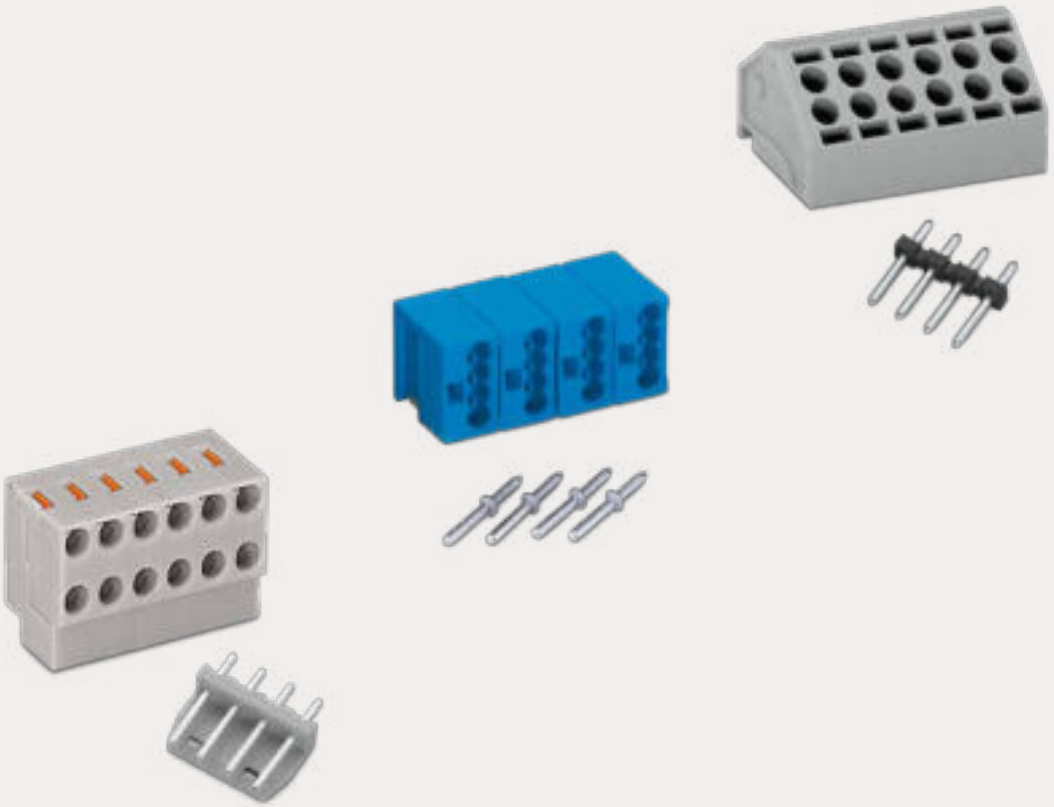
10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Direct Marking
MCS MAXI 6 and *MCS* MAXI 16

Direct marking of female connectors; parallel to conductor entry; 1 ... pole no.; item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-conductor female connector; 6-pole; light gray	**831-3106/000-9037**
1-conductor female connector; with locking levers; 6-pole; light gray	**831-3106/037-9037**

Direct marking of male connectors; parallel to conductor entry; pole no. ... 1; item no. suffix.: /. . . - 9034	
Version	**Item No. Example**
1-conductor male connector; 6-pole; light gray	**831-3206/000-9034**
1-conductor male connector; for DIN-35 rail mounting; 6-pole, light gray	**831-3206/007-9034**



WAGO Pluggable PCB Connectors

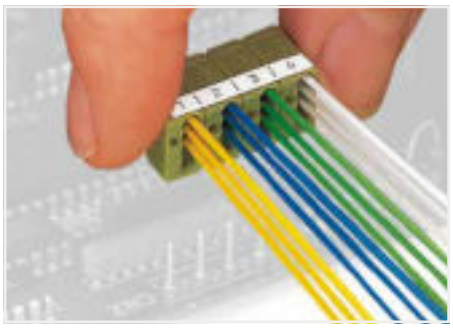
Pluggable WAGO PCB Connectors

		Nominal Cross-Section	Series	Page
	2-Conductor Compact PCB Connectors ▸ 0.4 … 0.8 mm Ø "sol." ▸ PUSH WIRE®	3,5 mm	252	790
	2-Conductor PCB Connector Strips (Pinstrip Pluggable) ▸ 0.2 … 1.5 mm² (16 AWG) ▸ Push-in CAGE CLAMP®	5 mm	806	794
	4-Conductor Modular PCB Connectors ▸ 0.4 … 0.8 mm Ø "sol." ▸ PUSH WIRE®	5,75 mm	243	796
	Accessories and Tools			861

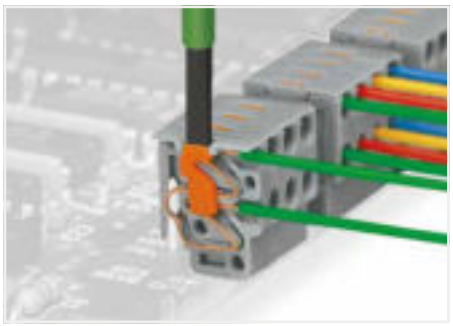
Pluggable PCB Connectors
252 and 243 Series
Description and Installation

PUSH WIRE®

Inserting a conductor using pliers until it hits backstop – directly on the PCB or wiring prior to mounting on PCB.

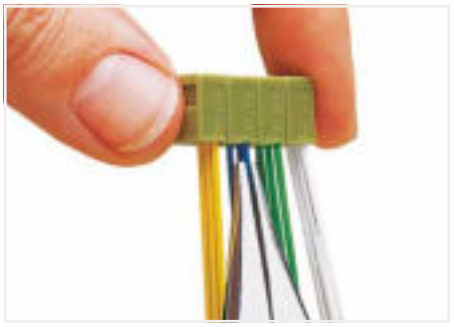


Removing a PCB connector strip to replace the board.

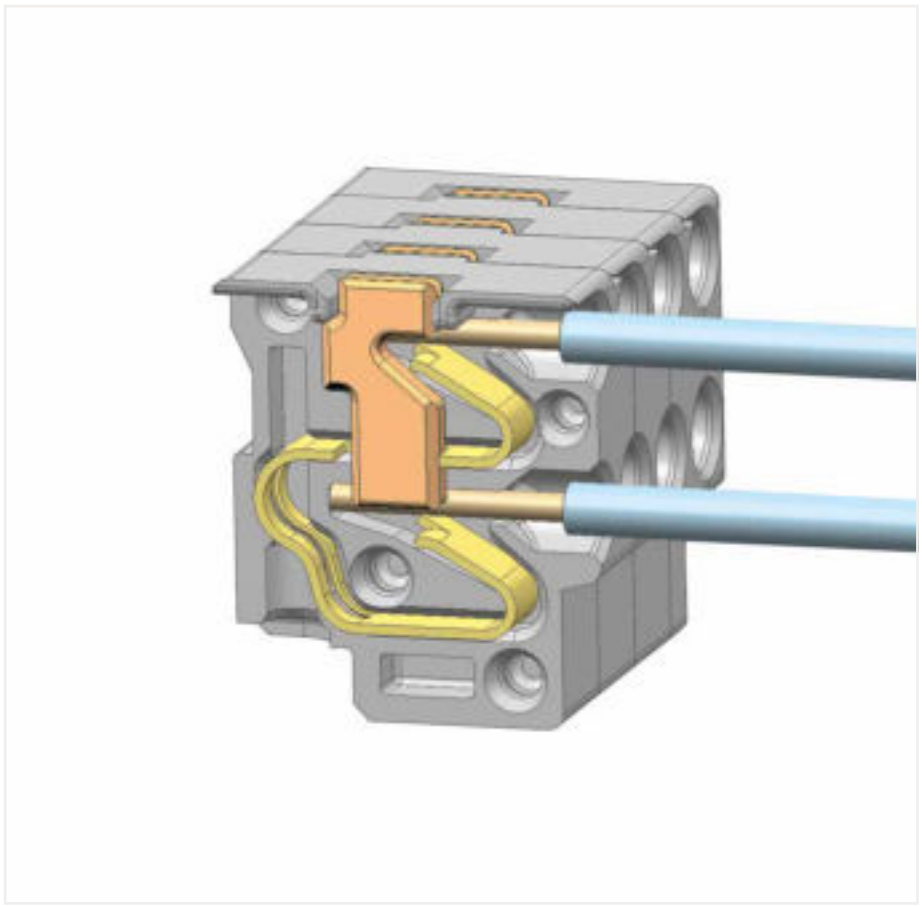


Removing a conductor via push-button – 252 Series

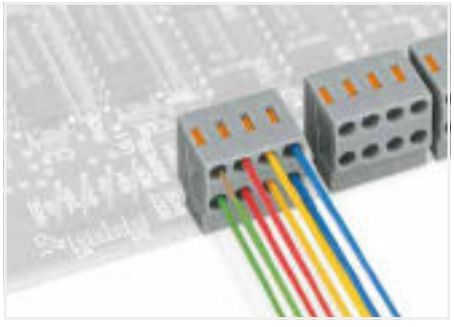
Testing – 243 Series



Removing a conductor using pliers – twisting alternately left and right – 243 Series

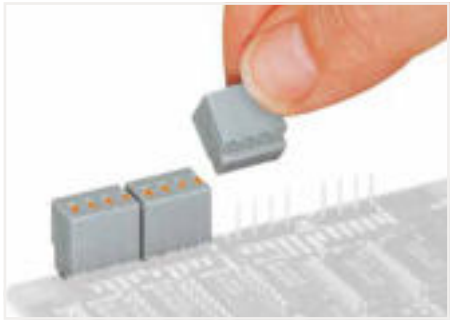


252 Series



Conductor termination directly on the PCB or wiring prior to mounting on PCB – 252 Series

Solder pin strip with strain relief, 4-pole

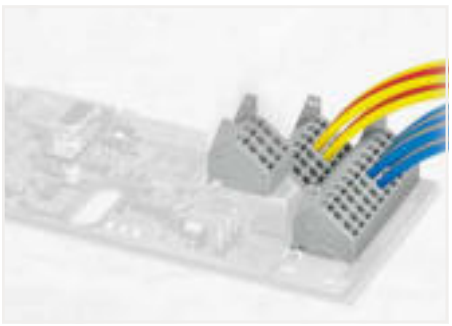


Plugging a compact PCB connector – 252 Series.

PUSH-IN CAGE CLAMP®

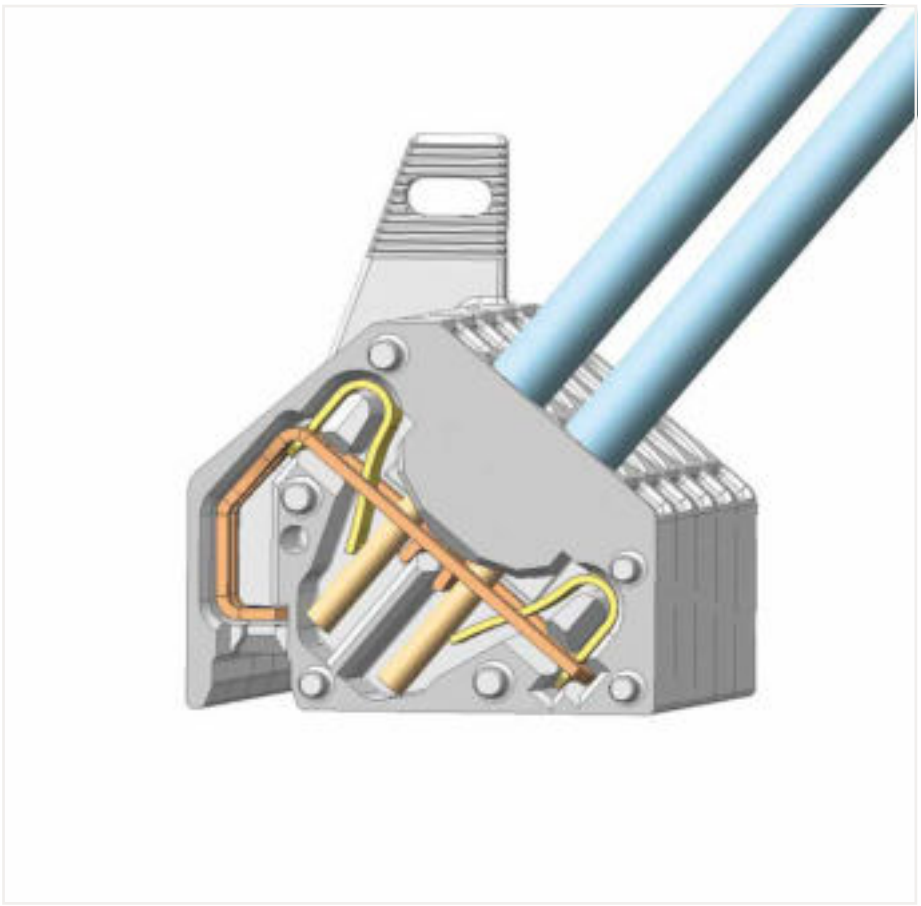
Pluggable PCB Connectors
806 Series
Description and Installation

Inserting solid conductors via push-in termination. Inserting/removing fine-stranded conductors: Open the clamping unit using a screwdriver and insert a stripped conductor until it hits backstop.



Conductor termination directly on the PCB or wiring prior to mounting on PCB

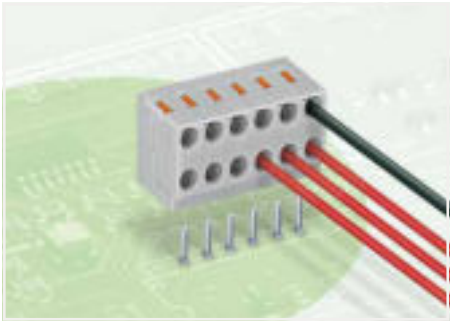
Mixed-color PCB connector strips (with or without spacer) are available upon request.



806 Series

2-conductor female connector ▸ 252 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Terminal strip ▸ Color: gray



- 2-conductor female connector with push-buttons and PUSH WIRE® connection
- Push-in termination of solid conductors – conductor removal via push-buttons
- Double entries for power supply and distribution
- Quick and easy PCB replacement
- Loop connection is retained, even when unmated
- Group arrangement is possible without losing any poles

Electrical Data

Pin spacing Secondary product function	3.5 mm / 0.138 inch suitable for solder pin strips;suitable for solder pins			3.5 mm / 0.138 inch suitable for solder pins; pluggable from top		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	160 V	160 V	320 V
Rated impulse voltage	4 kV	4 kV	4 kV	2.5 kV	2.5 kV	2.5 kV
Rated current	2 A	2 A	2 A	2 A	2 A	2 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	2 A	-	2 A	2 A	-	2 A

Connection Data

Connection technology	PUSH WIRE®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.14 … 0.5 mm² / 26 … 20 AWG
Conductor diameter	0.4 … 0.8 mm

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +105 °C

11

General accessories	Page 791
Marking	Page 864
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

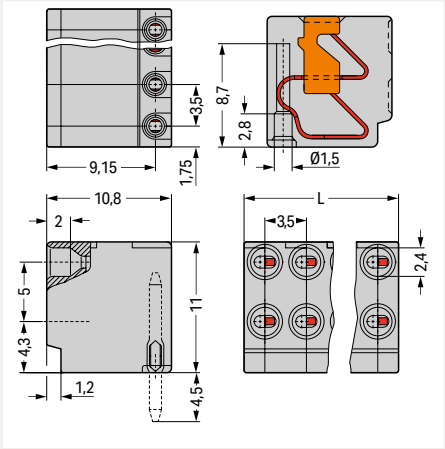
2-conductor female connector ▸ 252 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Terminal strip ▸ Color: gray

suitable for solder pins

252-106

Pole No.	Item No.	PU (SPU)
2	252-102	600 (100)
3	252-103	400 (100)
4	252-104	300 (100)
5	252-105	300 (100)
6	252-106	200 (100)
7	252-107	200 (100)
8	252-108	200 (50)
9	252-109	200 (50)
10	252-110	150 (50)

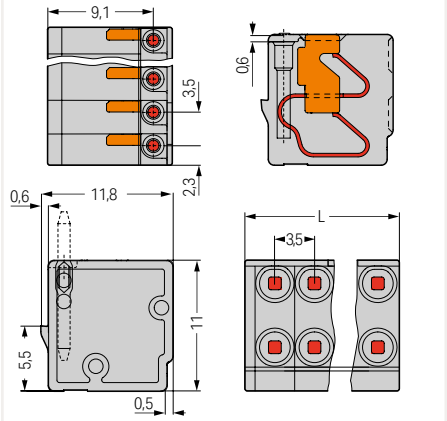


L = pole no. x pin spacing

suitable for solder pins; pluggable from top

252-302

Pole No.	Item No.	PU (SPU)
2	252-302	600 (100)
3	252-303	400 (100)
4	252-304	300 (100)
5	252-305	300 (100)
6	252-306	200 (100)
7	252-307	200 (100)
8	252-308	200 (50)
9	252-309	200 (50)
10	252-310	150 (50)



L = pole no. x pin spacing

Accessories; for all products on this page

Solder pin; Solder pin diameter: 1 mm; for PCBs up to 2 mm thick

Pole No.	Item No.	PU
1	243-131	1000

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking

11

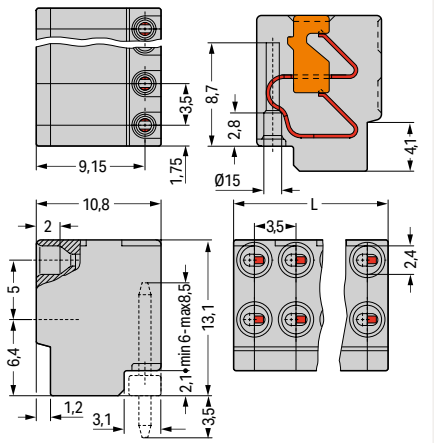
2-conductor female connector ▸ 252 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Pin spacing: 3.5 mm / 0.138 inch ▸ Terminal strip ▸ Color: gray

suitable for solder pin strips

252-156

Pole No.	Item No.	PU (SPU)
2	252-152	600 (100)
3	252-153	400 (100)
4	252-154	300 (100)
5	252-155	300 (100)
6	252-156	200 (100)
7	252-157	200 (100)
8	252-158	200 (50)
9	252-159	200 (50)
10	252-160	150 (50)



L = pole no. x pin spacing

11

Accessories; for all products on this page

Solder pin; Solder pin diameter: 1 mm; Pin spacing: 3.5 mm / 0.138 inch

Pole No.	Item No.	PU
2	252-902	500
3	252-903	500
4	252-904	500
5	252-905	500
6	252-906	500
7	252-907	500
8	252-908	500
9	252-909	500
10	252-910	500

Solder pin; Solder pin diameter: 1 mm; with locking function

Pole No.	Item No.	PU
4	252-954	1000

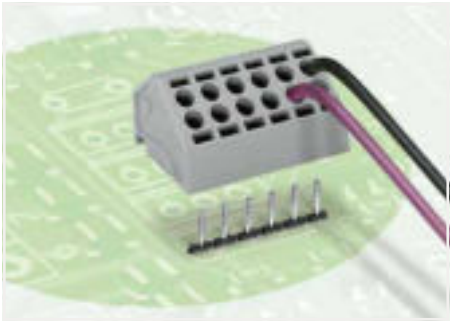
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Direct marking

2-conductor female connector ▸ 806 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Terminal strip ▸ Color: gray



- 2-conductor female connector with Push-in CAGE CLAMP® connection and screwdriver-actuation
- Push-in termination of solid and ferruled conductors
- Double entries for power supply and potential distribution
- Quick and easy PCB replacement, without disrupting looped-through potentials

Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor connection direction to PCB	45 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin diameter	1 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

See technical section for further information

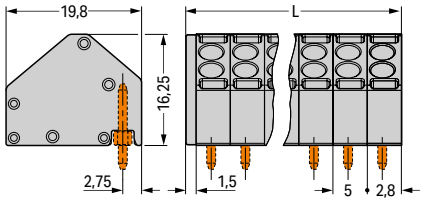
For approvals and corresponding ratings, visit www.wago.com

2-conductor female connector ▸ 806 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Terminal strip ▸ Color: gray

806-106

Pole No.	Item No.	PU
2	806-102	400
3	806-103	250
4	806-104	200
5	806-105	175
6	806-106	150
7	806-107	125
8	806-108	100
9	806-109	100
10	806-110	80
11	806-111	80
12	806-112	60

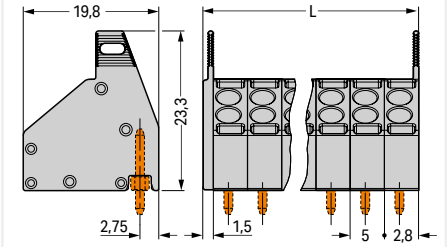


L = (pole no. x pin spacing) + 1.5 mm

With pull-out tool

806-206

Pole No.	Item No.	PU
2	806-202	704
3	806-203	484
4	806-204	352
5	806-205	308
6	806-206	220
7	806-207	220
8	806-208	176
9	806-209	132
10	806-210	132
11	806-211	132
12	806-212	132



L = (pole no. x pin spacing) + 1.5 mm

Accessories; for all products on this page

Solder pin; Solder pin diameter: 1 mm; Pin spacing: 5 mm / 0.197 inch

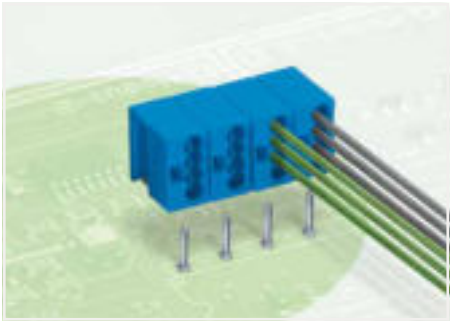
Pole No.	Item No.	PU
2	806-902	100
3	806-903	100
4	806-904	100
5	806-905	100
6	806-906	100
7	806-907	100
8	806-908	100
9	806-909	100
10	806-910	100
11	806-911	100
12	806-912	100

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking

4-conductor modular PCB connector ▸ 243 Series
PUSH WIRE® ▸ 1 mm² ▸ Pin spacing: 5.75 mm / 0.226 inch



- 4-conductor female connector with PUSH WIRE® connection
- Can be assembled to connector strips via dovetail joints
- Push-in termination of solid conductors
- Four entries for power supply and potential distribution
- Quick and easy PCB replacement, without disrupting looped-through potentials

Electrical Data				
Pin spacing	**5.75 mm / 0.226 inch**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	6 A	6 A	6 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	150 V	-	150 V	
Rated current	7 A	-	7 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	150 V	-	150 V	
Rated current	7 A	-	7 A	

Connection Data	
Connection technology	PUSH WIRE®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Connectable conductor materials	Copper
Solid conductor	0.5 … 1 mm² / 24 … 18 AWG
Conductor diameter	0.5 … 1 mm

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4.5 mm
Solder pin diameter	1 mm
Drilled hole diameter with tolerance	1.2 $^{(+0.05 \ldots +0.05)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

11

Marking Page 865

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

4-conductor modular PCB connector ▸ 243 Series
PUSH WIRE® ▸ 1 mm² ▸ Pin spacing: 5.75 mm / 0.226 inch

Modular terminal block

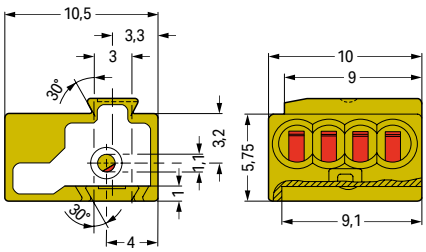
243-724

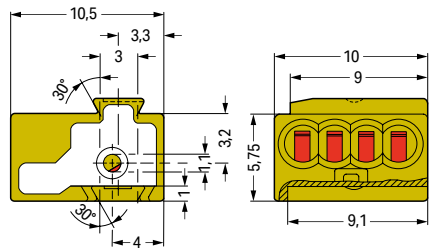
Color	Item No.	PU
gray	243-721	400
blue	243-722	400
orange	243-723	400
light gray	243-726	400
light green	243-724	400
dark gray	243-725	400

Terminal strip

243-743

Color	Pole No.	Item No.	PU (SPU)
gray	4	243-744/000-007	50
blue	2	243-742/000-006	50
blue	4	243-744/000-006	50
blue	5	243-745/000-006	400 (50)
blue	6	243-746/000-006	50
orange	2	243-742/000-012	50
orange	3	243-743/000-012	50
orange	4	243-744/000-012	50
orange	5	243-745/000-012	400 (50)
light green	2	243-742	50
light green	3	243-743	50
light green	4	243-744	50
light green	5	243-745	50
light green	6	243-746	50
light green	7	243-747	50
light green	8	243-748	50





Accessories; for all products on this page

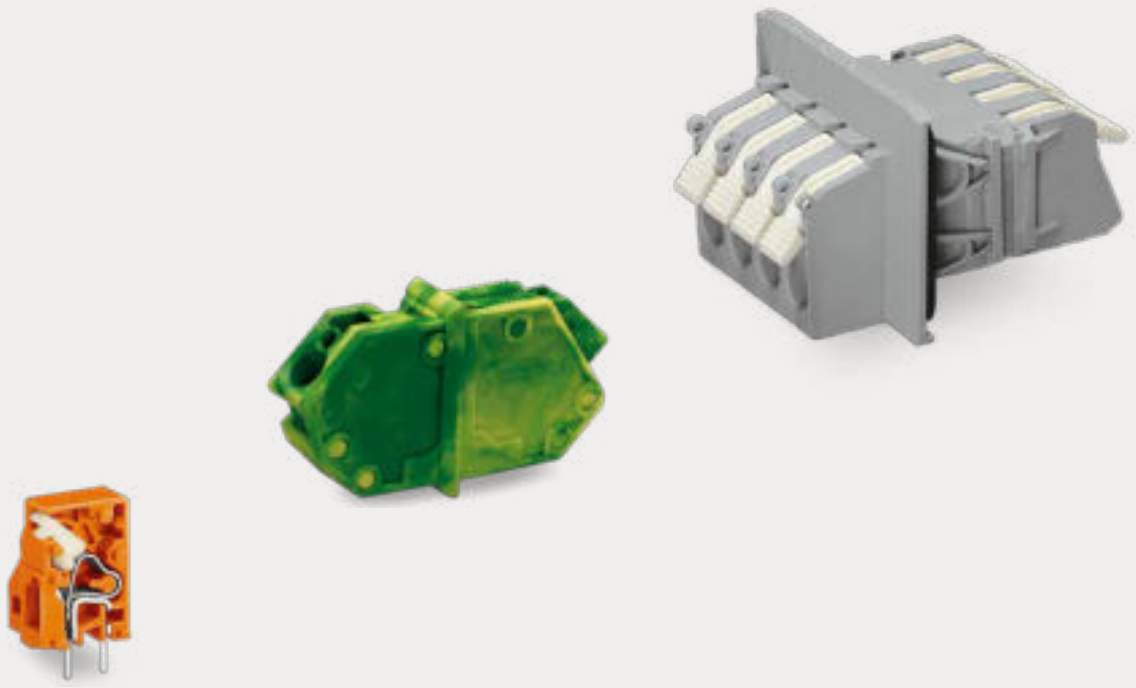
Solder pin; Solder pin diameter: 1 mm; for PCBs up to 2 mm thick

Pole No.	Item No.	PU
1	243-131	1000

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Mixed-color PCB connector strips
- Direct marking



WAGO Feedthrough Terminal Blocks

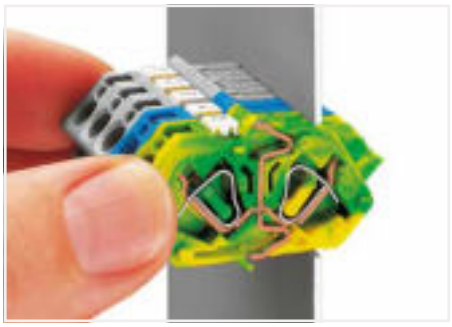
WAGO Feedthrough Terminal Blocks

		Nominal cross-section	Series	Page
	Modular, Panel Feedthrough end Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	4 mm²	826	802
	Feedthrough Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	4 mm²	226	806
	Feedthrough Terminal Blocks ▸ Actuation type: Lever ▸ CAGE CLAMP®	16 mm²	828	816
	PCB Terminal Blocks ▸ Actuation type: Push-button ▸ CAGE CLAMP®	2.5 mm²	741	818
	PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	231	826
	1-Conductor Feedthrough Terminal Strips ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	731	830
	Accessories and Tools			861

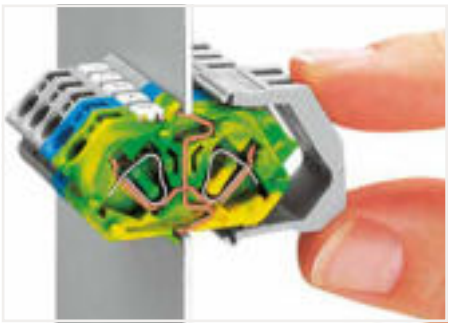
12

CAGE CLAMP®

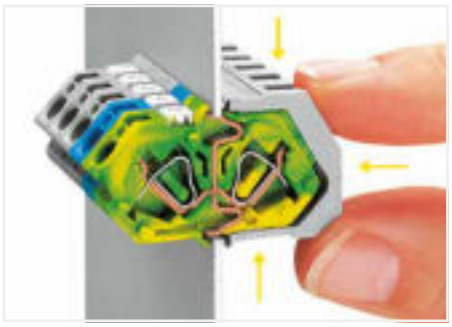
Feedthrough Terminal Blocks
826 Series
Description and Installation



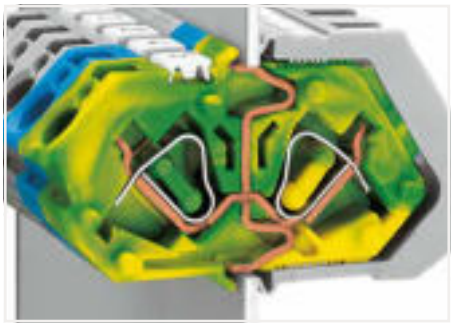
Insert the terminal strip into the cutout until the stop hits the enclosure wall.



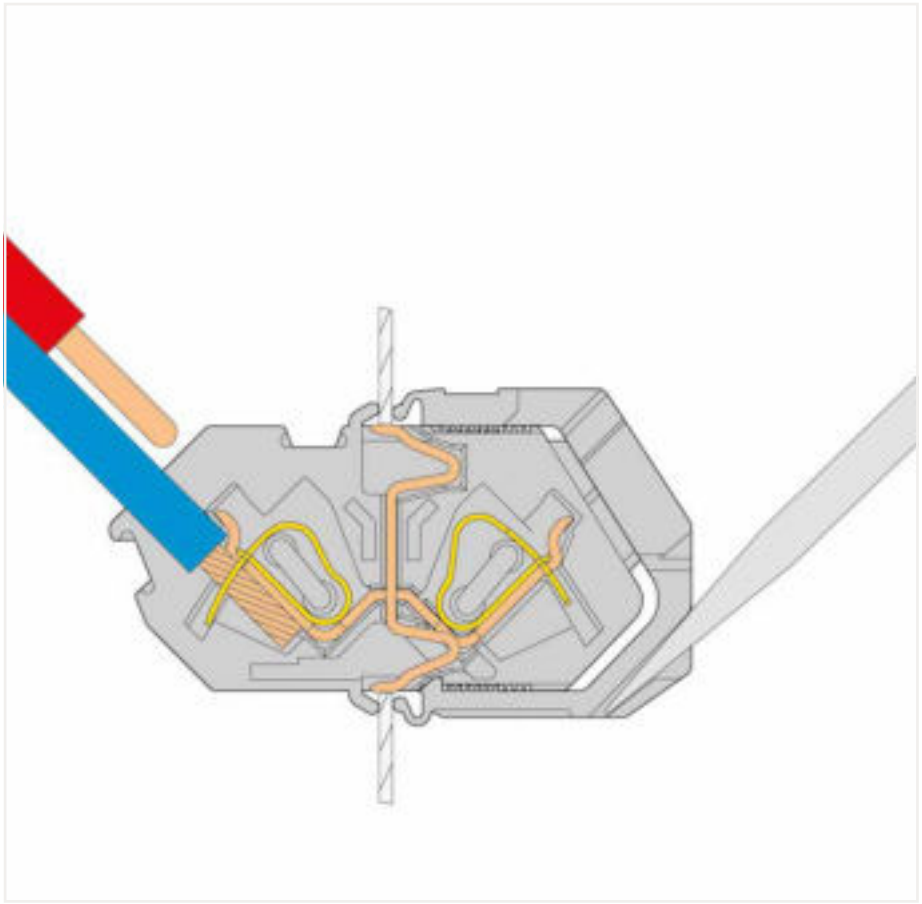
Secure the terminal strip to the inner side of the cutout via retaining clips.



Push retaining clips until stop and press together in the direction of the terminal strip center.

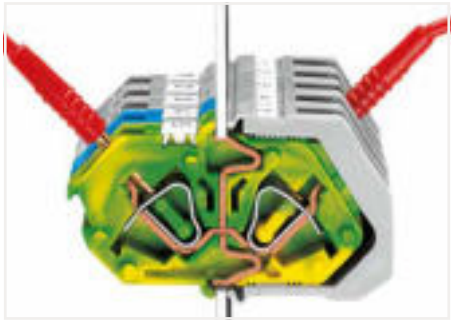


Automatic, double contact of the ground contact to the enclosure wall

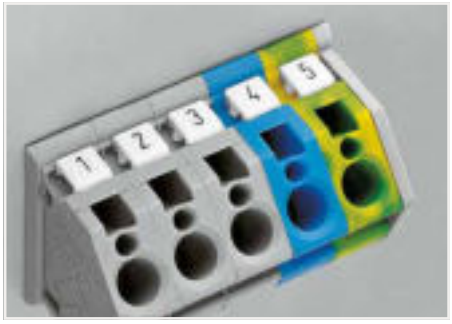


826 Series

Inserting a conductor via screwdriver.



Testing with 2 mm or 2.3 mm Ø test plug.



Labeling via Mini-WSB makers – directly on the terminal blocks.

Self-adhesive marking strips adhere directly on the retaining clips.

12

Feedthrough Terminal Blocks 231, 731 and 226 Series

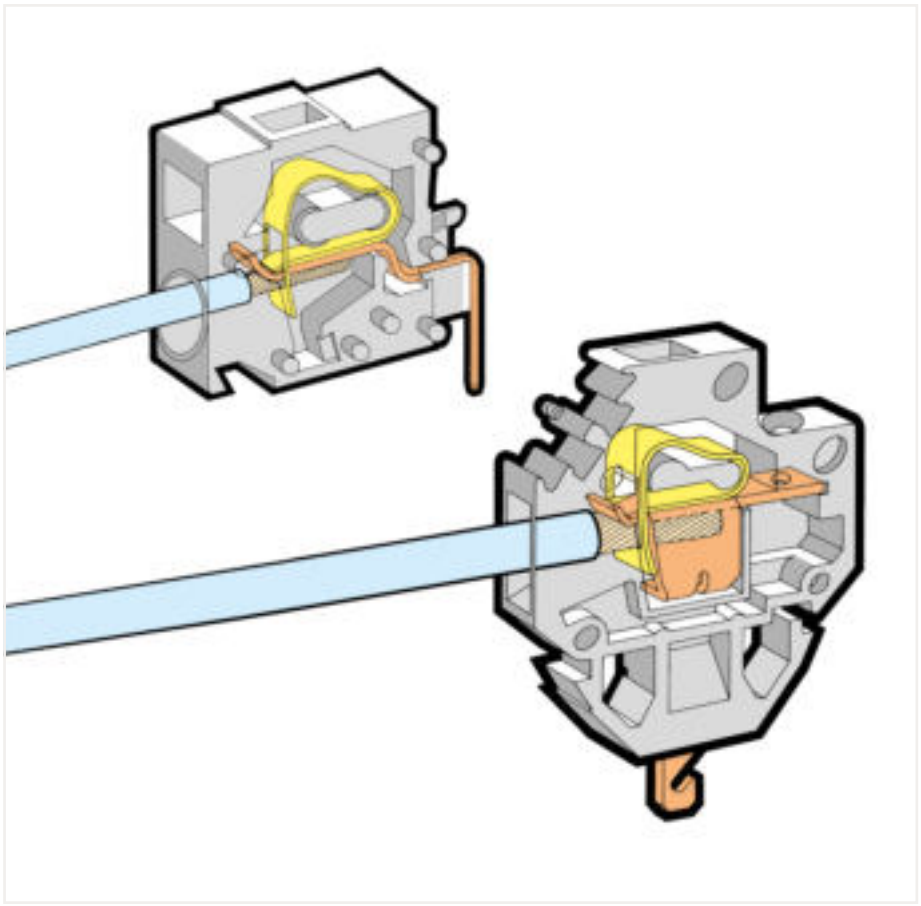
Description and Installation

CAGE CLAMP®

Feedthrough PCB terminal strips – front-entry conductor termination

Feedthrough PCB terminal strips can be used as front-panel feedthrough for external conductor termination.

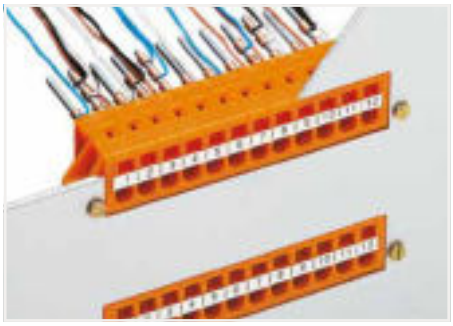
With flanges for PCB or front-panel mounting – either flush with enclosure or protruding



231, 731 and 226 Series

Snapping a 226 Series Feedthrough Terminal Block into the cutout.

Testing with 2 mm Ø test plug – touch contact.

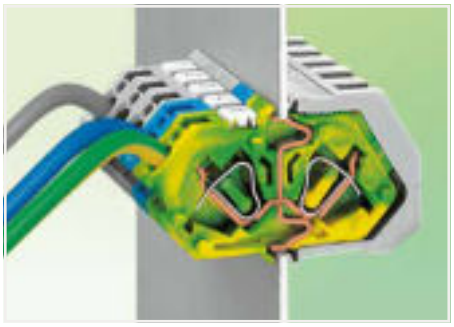


Feedthrough terminal strips with mounting flanges

12

Feedthrough terminal block ▸ 826 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Locking claw ▸ 4 mm² ▸ Pin spacing: 7 mm / 0.276 inch



- Feedthrough terminal blocks with screwdriver-actuated CAGE CLAMP® on both sides
- Easy, tool-free installation
- Direct ground contact with enclosure/panel
- Test ports available on both sides

Electrical Data						
Pin spacing	7 mm / 0.276 inch			7 mm / 0.276 inch		
Terminal block assembly	Modular terminal block;Terminal strip including end plate;including end plate and retaining clip			Modular terminal block including end plate		
Lieferumfang						
Farbe	gray					
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	6 kV	4 kV
Rated current	32 A	32 A	32 A	32 A	32 A	32 A
Approbations per	UL 1059			UL 1059		
Use group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	20 A	10 A	20 A	20 A	10 A
Approbations per	CSA			CSA		
Use group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	20 A	10 A	20 A	20 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Test and measurement	Page 886
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

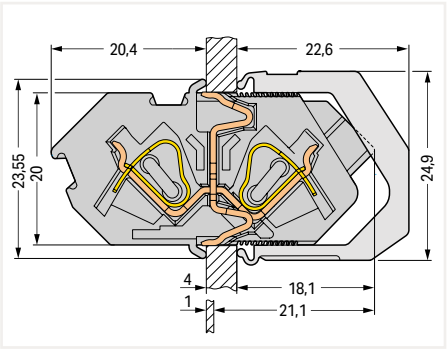
Feedthrough terminal block ▸ 826 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Locking claw ▸ 4 mm² ▸ Pin spacing: 7 mm / 0.276 inch

Modular terminal block

826-160

Color	Item No.	PU (SPU)
gray	826-160	50 (25)
blue	826-160/000-006	50 (25)
green-yellow	826-160/000-016	50 (25)

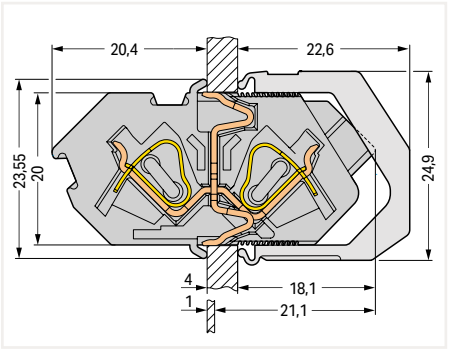


Cut-out dimensions: H = 20.1$^{+0.1}$ mm; L = (pole no. x 7 mm) + 1.6$^{+0.1}$ mm

Modular terminal block ▸ Scope of delivery including end plate

826-159

Color	Item No.	PU (SPU)
gray	826-159	50 (25)
blue	826-159/000-006	50 (25)
green-yellow	826-159/000-016	50 (25)



Cut-out dimensions: H = 20.1$^{+0.1}$ mm; L = (pole no. x 7 mm) + 1.6$^{+0.1}$ mm

12

Accessories; for all products on this page

Retaining clip (as replacement); Color: gray

	Item No.	PU (SPU)
	826-155	50 (25)
	826-156	50 (25)
	826-157	50 (25)

End plate; Width: 1.5 mm

Color	Item No.	PU (SPU)
gray	826-158	100 (25)
blue	826-158/000-006	100 (25)
green-yellow	826-158/000-016	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking

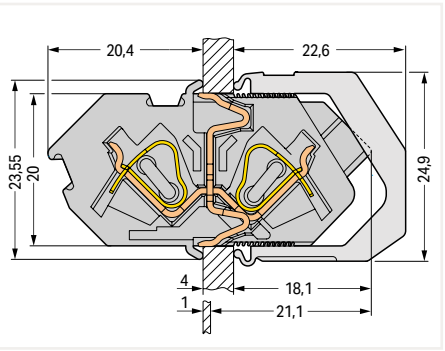
Feedthrough terminal block ▸ 826 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Locking claw ▸ 4 mm² ▸ Pin spacing: 7 mm / 0.276 inch

Modular terminal block ▸ Scope of delivery including end plate and retaining clip

826-161

Color	Item No.	PU
gray	826-161	50

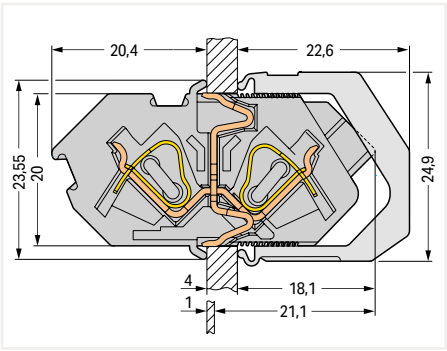


Cut-out dimensions: H = 20.1$^{+0.1}$ mm; L = (pole no. x 7 mm) + 1.6$^{+0.1}$ mm

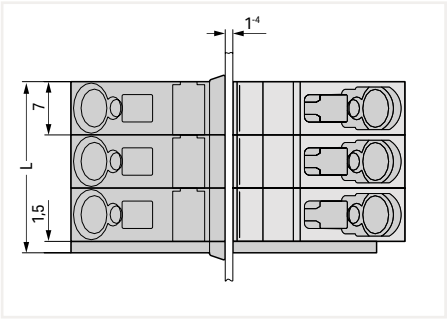
Terminal strip ▸ Scope of delivery including end plate and retaining clip

826-172

Pole No.	Item No.	PU
2	826-162	50
3	826-163	50
4	826-164	50
5	826-165	50
6	826-166	50
7	826-167	25
8	826-168	25
9	826-169	25
10	826-170	25
11	826-171	10
12	826-172	10



Cut-out dimensions: H = 20.1$^{+0.1}$ mm; L = (pole no. x 7 mm) + 1.6$^{+0.1}$ mm



L = (pole no. x 7 mm) + 1.6 mm

12

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking

Feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block

- Modular through terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Electrical Data			
Pin spacing	**6 mm / 0.236 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	4 A	4 A	4 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	4 A	4 A	4 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	600 V
Rated current	4 A	-	4 A

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Connection technology 2	Wire-wrap pin
Number of connection points	1

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

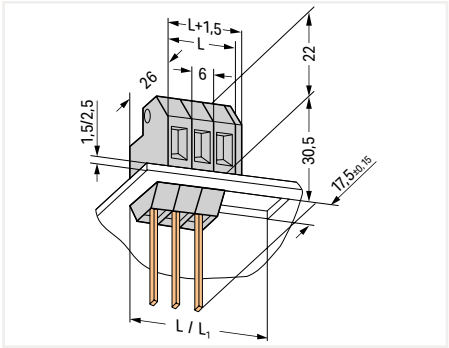
For approvals and corresponding ratings, visit www.wago.com

Feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block

Housing sheet thickness (max.): 1.5 mm

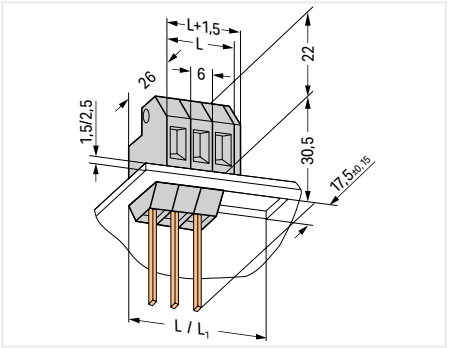
Color	Item No.	PU
gray	226-102	150



L = pole no. x 6 mm
L_1 = L + 1.5 mm

Housing sheet thickness (max.): 2.5 mm

Color	Item No.	PU
gray	226-112	150



L = pole no. x 6 mm
L_1 = L + 1.5 mm

12

Accessories; for all products on this page

Intermediate plate; Width: 6 mm; Mounting type: Feed-through mounting; Color: gray

Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)

End plate; Width: 1.5 mm; Design: long

Color	Item No.	PU (SPU)
gray	226-110	100 (25)

End plate; Width: 1.5 mm; Design: short

Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Solder connection ▸ Quick connect contact ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block

- Modular through terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Electrical Data				
Pin spacing	6 mm / 0.236 inch			
Solder connection				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	20 A	20 A	20 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	300 V	600 V	
Rated current	6 A	6 A	5 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	-	600 V	
Rated current	6 A	-	5 A	
Quick connect contact				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	6 A	6 A	6 A	

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Connection technology 2	Solder connection
Number of connection points	1
Connection technology 3	Quick connect contact

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

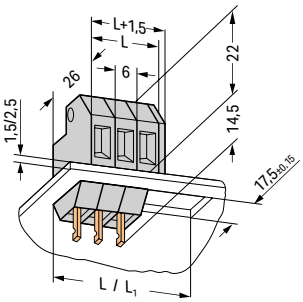
For approvals and corresponding ratings, visit www.wago.com

Feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Solder connection ▸ Quick connect contact ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block

Housing sheet thickness (max.): 1.5 mm

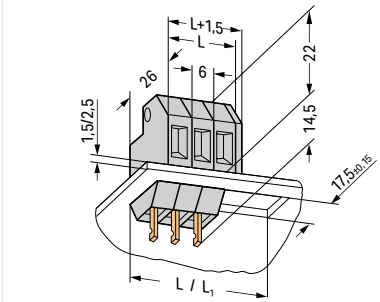
Solder pin dimensions	Item No.	PU
2.8 x 0.8 mm	226-101	200
4.8 x 0.8 mm	226-104	200



L = pole no. x 6 mm
L_1 = L + 1.5 mm

Housing sheet thickness (max.): 2.5 mm

Solder pin dimensions	Item No.	PU
2.8 x 0.8 mm	226-111	200
4.8 x 0.8 mm	226-114	200



L = pole no. x 6 mm
L_1 = L + 1.5 mm

12

Accessories; for all products on this page

Intermediate plate; Width: 6 mm; Mounting type: Feed-through mounting; Color: gray

Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)

End plate; Width: 1.5 mm; Design: long

Color	Item No.	PU (SPU)
gray	226-110	100 (25)

End plate; Width: 1.5 mm; Design: short

Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Ground conductor feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Solder connection ▸ Quick connect contact ▸ Actuation type: Operating tool ▸ Ground protection ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block ▸ Housing sheet thickness (max.): 1.5 mm

- Modular through terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Electrical Data			
Pin spacing	6 mm / 0.236 inch		
Solder connection			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	630 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	20 A	20 A	20 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	6 A	6 A	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	600 V
Rated current	6 A	-	5 A
Quick connect contact			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	6 A	6 A	6 A

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Connection technology 2	Solder connection
Number of connection points	1
Connection technology 3	Quick connect contact

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin dimensions	4.8 x 0.8 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

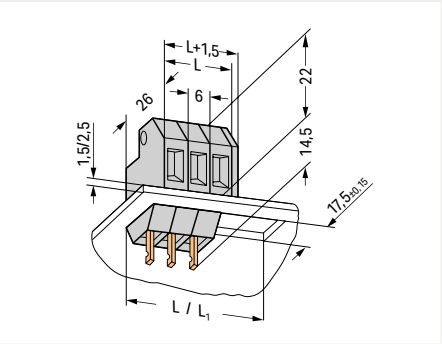
For approvals and corresponding ratings, visit www.wago.com

Ground conductor feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Solder connection ▸ Quick connect contact ▸ Actuation type: Operating tool ▸ Ground protection ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block ▸ Housing sheet thickness (max.): 1.5 mm

226-107

Color	Solder pin dimensions	Item No.	PU
green-yellow	4.8 x 0.8 mm	226-107	200



L = pole no. x 6 mm
L_1 = L + 1.5 mm

12

Accessories; for all products on this page

Intermediate plate; Width: 6 mm; Mounting type: Feed-through mounting; Color: gray		
Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)

End plate; Width: 1.5 mm; Design: long		
Color	Item No.	PU (SPU)
gray	226-110	100 (25)

End plate; Width: 1.5 mm; Design: short		
Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Contact pin ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block

- Modular through terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Electrical Data			
Pin spacing	**6 mm / 0.236 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	4 A	4 A	4 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	4 A	4 A	4 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	600 V
Rated current	4 A	-	4 A

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Connection technology 2	Contact pin
Number of connection points	1

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

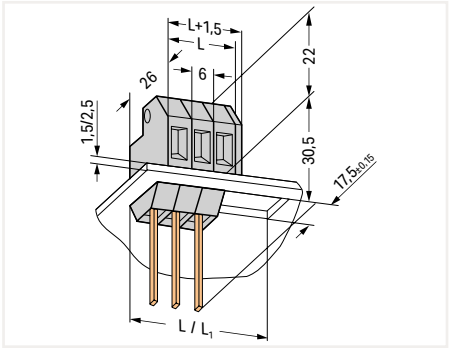
For approvals and corresponding ratings, visit www.wago.com

Feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Contact pin ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block

Housing sheet thickness (max.): 1.5 mm

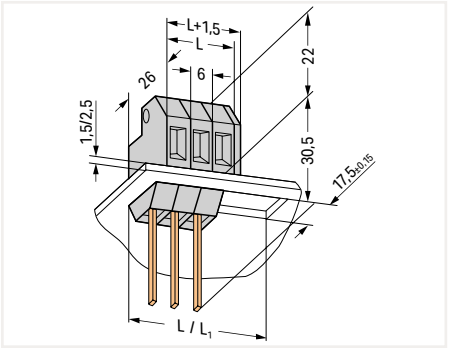
Color	Item No.	PU
gray	226-103	150



L = pole no. x 6 mm
L_1 = L + 1.5 mm

Housing sheet thickness (max.): 2.5 mm

Color	Item No.	PU
gray	226-113	150



L = pole no. x 6 mm
L_1 = L + 1.5 mm

12

Accessories; for all products on this page

Intermediate plate; Width: 6 mm; Mounting type: Feed-through mounting; Color: gray

Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)

End plate; Width: 1.5 mm; Design: long

Color	Item No.	PU (SPU)
gray	226-110	100 (25)

End plate; Width: 1.5 mm; Design: short

Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Ground conductor feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ with direct ground contact ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block ▸ Housing sheet thickness (max.): 1.5 mm

- Modular through terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Number of connection points	1

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

12

Ferrule	Page 879
Test and measurement	Page 886
Tool	Page 870

See technical section for further information

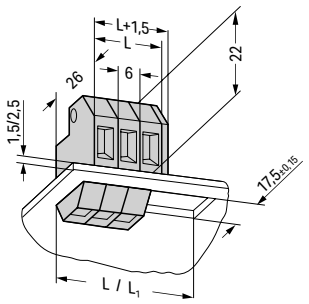
For approvals and corresponding ratings, visit www.wago.com

Ground conductor feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ with direct ground contact ▸ Mounting type: Snap-in foot ▸ 4 mm² ▸ Pin spacing: 6 mm / 0.236 inch ▸ Modular terminal block ▸ Housing sheet thickness (max.): 1.5 mm

226-108

Color	Item No.	PU
green-yellow	226-108	200



12

Accessories; for all products on this page

Intermediate plate; Width: 6 mm; Mounting type: Feed-through mounting; Color: gray		
Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)

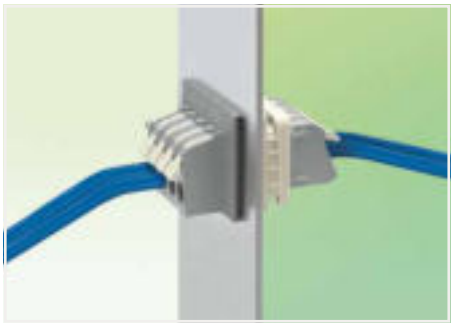
End plate; Width: 1.5 mm; Design: long		
Color	Item No.	PU (SPU)
gray	226-110	100 (25)

End plate; Width: 1.5 mm; Design: short		
Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Feedthrough terminal block ▸ 828 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Mounting type: Locking claw ▸ 16 mm² ▸ Pin spacing: 11.5 mm / 0.453 inch ▸ Terminal strip ▸ Housing sheet thickness (max.): 3 mm



- Feedthrough terminal strips with CAGE CLAMP® on both sides
- Easy, tool-free installation
- Tool-free termination – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- 600 V UL

Electrical Data				
Pin spacing	**11.5 mm / 0.453 inch**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	1000 V	1000 V	1000 V	
Rated impulse voltage	8 kV	8 kV	8 kV	
Rated current	57 A	57 A	57 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	600 V	600 V	-	
Rated current	30 A	30 A	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	600 V	600 V	-	
Rated current	30 A	30 A	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Solid conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor; with insulated ferrule	1.5 … 10 mm²
Fine-stranded conductor; with uninsulated ferrule	1.5 … 10 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

For other lengths, please contact factory.

Ferrule Page 879

See technical section for further information

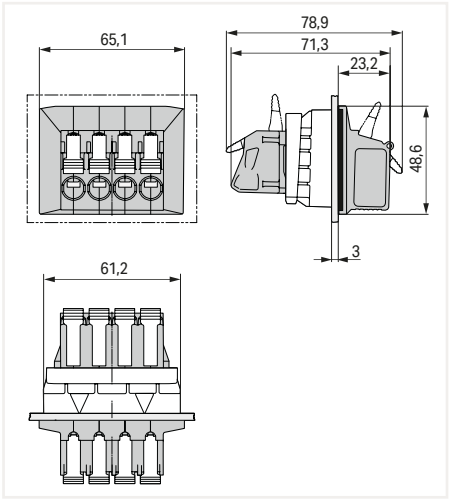
For approvals and corresponding ratings, visit www.wago.com

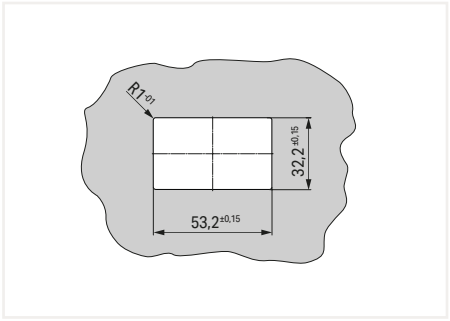
Feedthrough terminal block ▸ 828 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Mounting type: Locking claw ▸ 16 mm² ▸ Pin spacing: 11.5 mm / 0.453 inch ▸ Terminal strip ▸ Housing sheet thickness (max.): 3 mm

828-334

Color	Pole No.	Item No.	PU
gray	4	828-334	15





Insert terminal strip from the outside.

Snap the panel thickness adapter on from the inside.

Secure to panel via locking clip.

Mounted feedthrough terminal strip (internal)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Adapters for varying sheet panel thicknesses
- Direct marking

PCB terminal block ▸ 741 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip

- Feedthrough PCB terminal strips with push-button actuated CAGE CLAMP®
- Simple, push-button wiring
- Test slot integrated into upper-portion of conductor entry for test pins

Electrical Data									
Pin spacing	**5 mm / 0.197 inch**			**7.5 mm / 0.295 inch**			**10 mm / 0.394 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A
Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	16 A	-	10 A	16 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

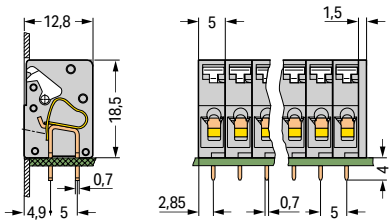
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

PCB terminal block ▸ 741 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip

Pin spacing: 5 mm / 0.197 inch

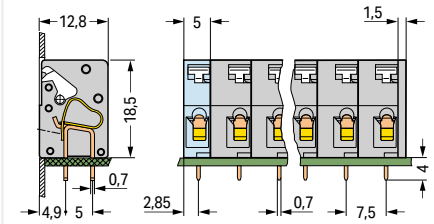
Pole No.	Item No.	PU (SPU)
2	741-102	400 (100)
3	741-103	280 (70)
4	741-104	220 (55)
5	741-105	180 (45)
6	741-106	140 (35)
7	741-107	120 (30)
8	741-108	100 (25)
9	741-109	100 (25)
10	741-110	80 (20)
12	741-112	60 (15)
16	741-116	40 (10)



Total length = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 7.5 mm / 0.295 inch

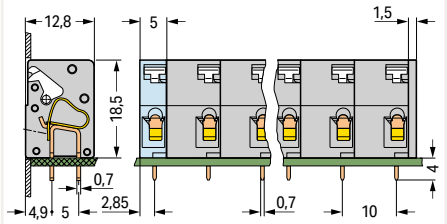
Pole No.	Item No.	PU (SPU)
2	741-302	340 (85)
3	741-303	220 (55)
4	741-304	160 (40)
5	741-305	120 (30)
6	741-306	100 (25)
7	741-307	80 (20)
8	741-308	80 (20)
9	741-309	60 (15)
10	741-310	60 (15)



Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

Pin spacing: 10 mm / 0.394 inch

Pole No.	Item No.	PU (SPU)
2	741-502	280 (70)
3	741-503	160 (40)
4	741-504	120 (30)
5	741-505	100 (25)
6	741-506	80 (20)
7	741-507	60 (15)
8	741-508	60 (15)



Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.
- Other pole numbers
- Other colors
- Direct marking

12

PCB terminal block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Terminal strip

- Feedthrough PCB terminal strips with push-button actuated CAGE CLAMP®
- Simple, push-button wiring
- Test slot integrated into upper-portion of conductor entry for test pins
- Mounting flanges for additional mechanical stability

Electrical Data

Pin spacing	5 mm / 0.197 inch			7.5 mm / 0.295 inch			10 mm / 0.394 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	16 A	-	10 A	16 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

See technical section for further information

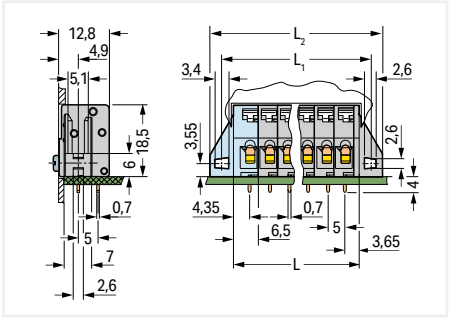
For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Terminal strip

Pin spacing: 5 mm / 0.197 inch

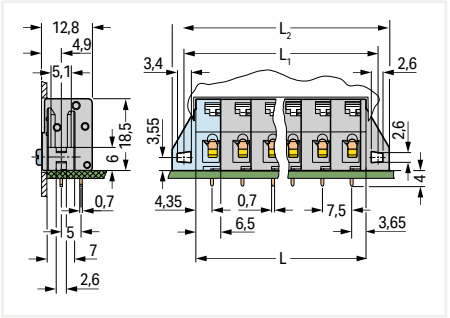
Pole No.	Item No.	PU (SPU)
2	741-132	180 (45)
3	741-133	160 (40)
4	741-134	140 (35)
5	741-135	120 (30)
6	741-136	100 (25)
7	741-137	80 (20)
8	741-138	80 (20)
9	741-139	80 (20)
10	741-140	60 (15)
12	741-142	60 (15)
16	741-146	40 (10)



L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

Pin spacing: 7.5 mm / 0.295 inch

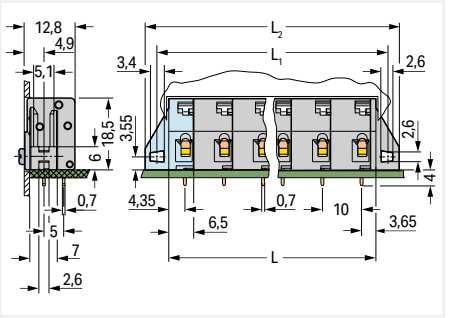
Pole No.	Item No.	PU (SPU)
2	741-322	160 (40)
3	741-323	140 (35)
4	741-324	100 (25)
5	741-325	80 (20)
6	741-326	80 (20)
7	741-327	60 (15)
8	741-328	60 (15)
9	741-329	60 (15)
10	741-330	40 (10)



L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

Pin spacing: 10 mm / 0.394 inch

Pole No.	Item No.	PU (SPU)
2	741-522	160 (40)
3	741-523	120 (30)
4	741-524	80 (20)
5	741-525	80 (20)
6	741-526	60 (15)
7	741-527	60 (15)
8	741-528	40 (10)



L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

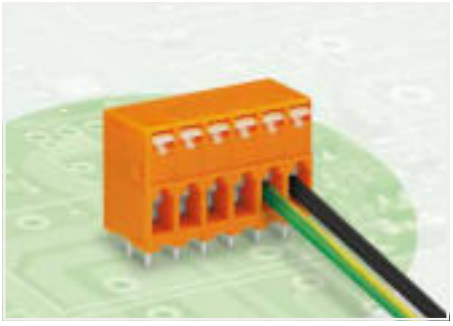
12

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking

PCB terminal block ▸ 741 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip



- Feedthrough PCB terminal strips with push-button actuated CAGE CLAMP®
- Simple, push-button wiring
- Test slot integrated into upper-portion of conductor entry for test pins

Electrical Data									
Pin spacing	**5.08 mm / 0.2 inch**			**7.62 mm / 0.3 inch**			**10.16 mm / 0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	16 A	-	10 A	16 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

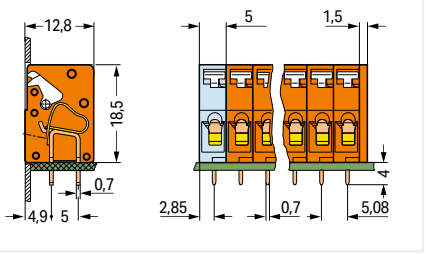
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 741 Series
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip

Pin spacing: 5.08 mm / 0.2 inch

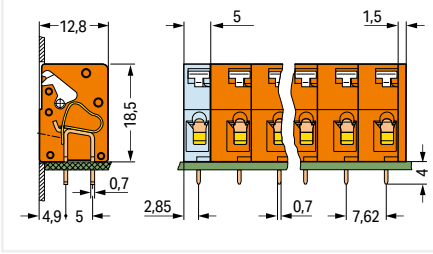
Pole No.	Item No.	PU (SPU)
2	741-202	400 (100)
3	741-203	280 (70)
4	741-204	220 (55)
5	741-205	160 (40)
6	741-206	140 (35)
7	741-207	120 (30)
8	741-208	100 (25)
9	741-209	100 (25)
10	741-210	80 (20)
12	741-212	60 (15)
16	741-216	40 (10)



Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

Pin spacing: 7.62 mm / 0.3 inch

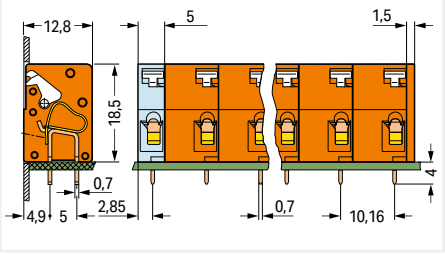
Pole No.	Item No.	PU (SPU)
2	741-402	320 (80)
3	741-403	220 (55)
4	741-404	160 (40)
5	741-405	120 (30)
6	741-406	100 (25)
7	741-407	80 (20)
8	741-408	80 (20)
9	741-409	60 (15)
10	741-410	60 (15)



Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

Pin spacing: 10.16 mm / 0.4 inch

Pole No.	Item No.	PU (SPU)
2	741-602	280 (70)
3	741-603	160 (40)
4	741-604	120 (30)
5	741-605	100 (25)
6	741-606	80 (20)
7	741-607	60 (15)
8	741-608	60 (15)



Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

12

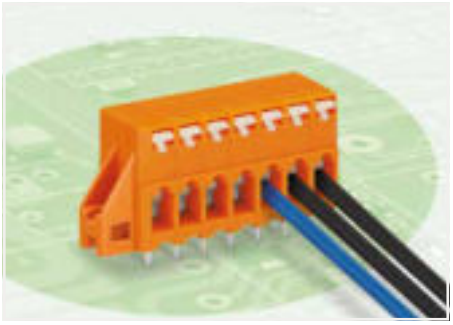
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking

PCB terminal block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Terminal strip



- Feedthrough PCB terminal strips with push-button actuated CAGE CLAMP®
- Simple, push-button wiring
- Test slot integrated into upper-portion of conductor entry for test pins
- Mounting flanges for additional mechanical stability

Electrical Data

Pin spacing	5.08 mm / 0.2 inch			7.62 mm / 0.3 inch			10.16 mm / 0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A

Approbations per	UL 1059			UL 1059			UL 1059		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Approbations per	CSA			CSA			CSA		
Use group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	16 A	-	10 A	16 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²

Material Data

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Tool	Page 870

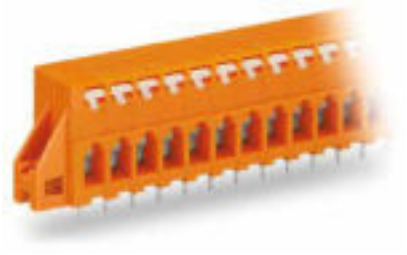
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

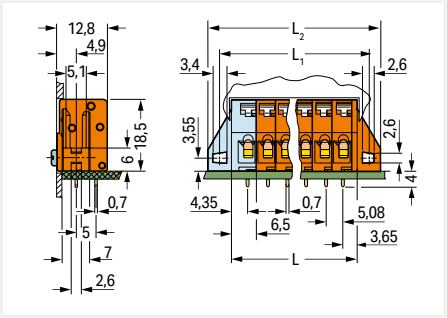
PCB terminal block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Terminal strip

Pin spacing: 5.08 mm / 0.2 inch



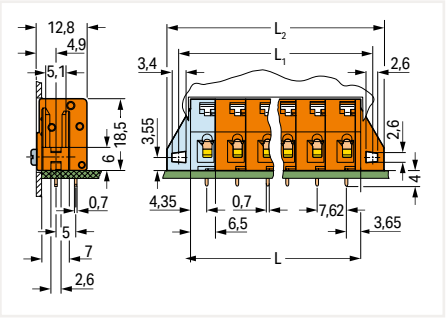
Pole No.	Item No.	PU (SPU)
2	741-232	180 (45)
3	741-233	160 (40)
4	741-234	120 (30)
5	741-235	120 (30)
6	741-236	100 (25)
7	741-237	80 (20)
8	741-238	80 (20)
9	741-239	80 (20)
10	741-240	60 (15)
12	741-242	60 (15)
16	741-246	40 (10)



L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

Pin spacing: 7.62 mm / 0.3 inch

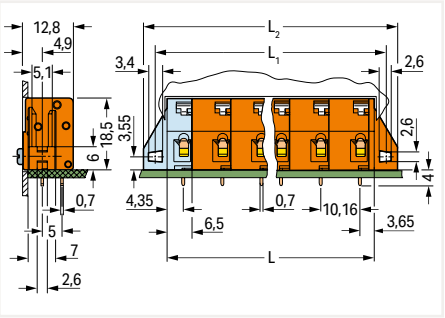
Pole No.	Item No.	PU (SPU)
2	741-422	160 (40)
3	741-423	140 (35)
4	741-424	100 (25)
5	741-425	80 (20)
6	741-426	80 (20)
7	741-427	60 (15)
8	741-428	60 (15)
9	741-429	40 (10)
10	741-430	40 (10)



L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

Pin spacing: 10.16 mm / 0.4 inch

Pole No.	Item No.	PU (SPU)
2	741-622	160 (40)
3	741-623	120 (30)
4	741-624	80 (20)
5	741-625	80 (20)
6	741-626	60 (15)
7	741-627	40 (10)
8	741-628	40 (10)



L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

12

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking

PCB terminal block ▸ 231 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Terminal strip

- Feedthrough PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- With flanges for PCB or front-panel mounting – either flush with enclosure or protruding

Electrical Data				
Pin spacing	5 mm / 0.197 inch			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	16 A	16 A	16 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	150 V	300 V	
Rated current	15 A	15 A	10 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	150 V	300 V	
Rated current	15 A	15 A	10 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4.7 mm
Solder pin dimensions	0.8 x 1.3 mm
Drilled hole diameter with tolerance	1.8 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Mounting	Page 869
Tool	Page 870

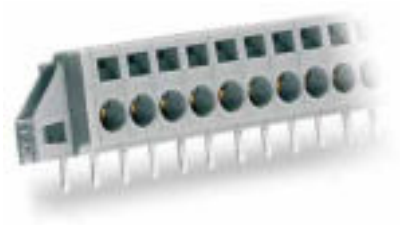
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

PCB terminal block ▸ 231 Series

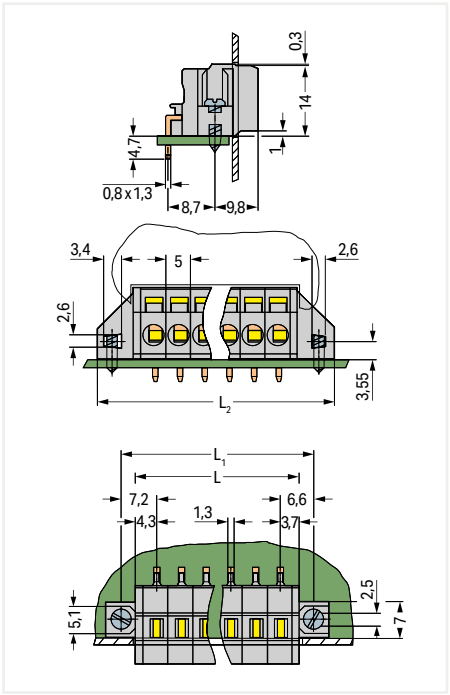
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Terminal strip

	Housing sheet thickness (max.): 1.5 mm

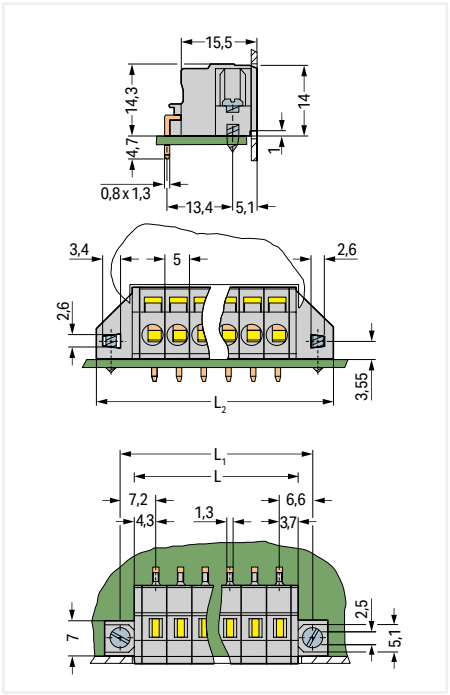


Pole No.	Item No.	PU
2	231-602/017-000	100
3	231-603/017-000	50
4	231-604/017-000	50
5	231-605/017-000	50
6	231-606/017-000	50
7	231-607/017-000	50
8	231-608/017-000	50
9	231-609/017-000	25
10	231-610/017-000	25
11	231-611/017-000	25
12	231-612/017-000	25

Pole No.	Item No.	PU
2	231-602/023-000	100
3	231-603/023-000	50
4	231-604/023-000	50
5	231-605/023-000	50
6	231-606/023-000	50
7	231-607/023-000	50
8	231-608/023-000	50
9	231-609/023-000	25
10	231-610/023-000	25
11	231-611/023-000	25
12	231-612/023-000	25



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm
for plate thickness up to 1.5 mm

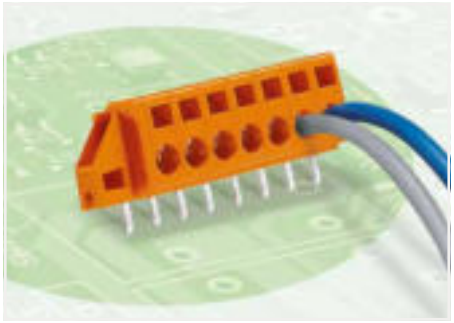
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking
- Versions without mounting flanges

PCB terminal block ▸ 231 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Terminal strip



- Feedthrough PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- With flanges for PCB or front-panel mounting – either flush with enclosure or protruding

Electrical Data				
Pin spacing	5.08 mm / 0.2 inch			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	16 A	16 A	16 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	300 V	150 V	300 V	
Rated current	15 A	15 A	10 A	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	300 V	150 V	300 V	
Rated current	15 A	15 A	10 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor connection direction to PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip (in-line)
Solder pin length	4.7 mm
Solder pin dimensions	0.8 x 1.3 mm
Drilled hole diameter with tolerance	1.8 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 879
Marking	Page 865
Mounting	Page 869
Tool	Page 870

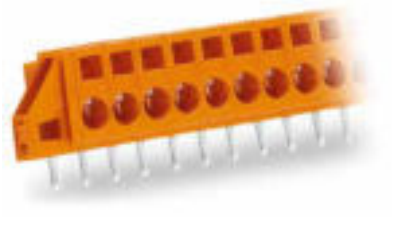
See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

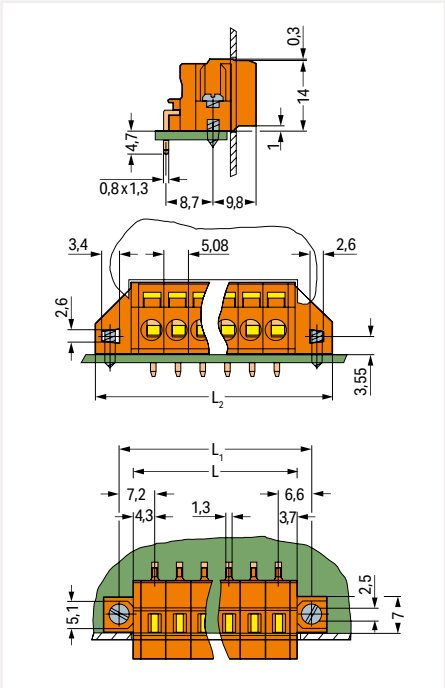
PCB terminal block ▸ 231 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Terminal strip

	Housing sheet thickness (max.): 1.5 mm

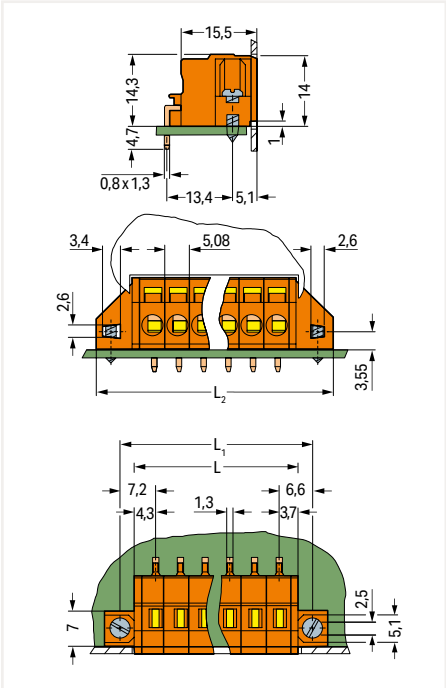


Pole No.	Item No.	PU
2	231-632/017-000	100
3	231-633/017-000	50
4	231-634/017-000	50
5	231-635/017-000	50
6	231-636/017-000	50
7	231-637/017-000	50
8	231-638/017-000	50
9	231-639/017-000	25
10	231-640/017-000	25
11	231-641/017-000	25
12	231-642/017-000	25



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

Pole No.	Item No.	PU
2	231-632/023-000	100
3	231-633/023-000	50
4	231-634/023-000	50
5	231-635/023-000	50
6	231-636/023-000	50
7	231-637/023-000	50
8	231-638/023-000	50
9	231-639/023-000	25
10	231-640/023-000	25
11	231-641/023-000	25
12	231-642/023-000	25



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm
for plate thickness up to 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking
- Versions without mounting flanges

Feedthrough terminal block ▸ 731 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Terminal strip ▸ Housing sheet thickness (max.): 1.5 mm

- Feedthrough PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- With flanges for PCB or front-panel mounting – either flush with enclosure or protruding

Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	5 A	5 A	5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	5 A	5 A	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	5 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Connection technology 2	Wire-wrap pin

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

12

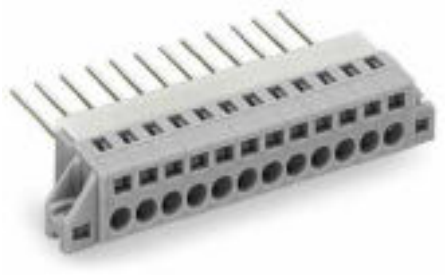
Ferrule	Page 879
Marking	Page 865
Mounting	Page 869
Tool	Page 870

See technical section for further information

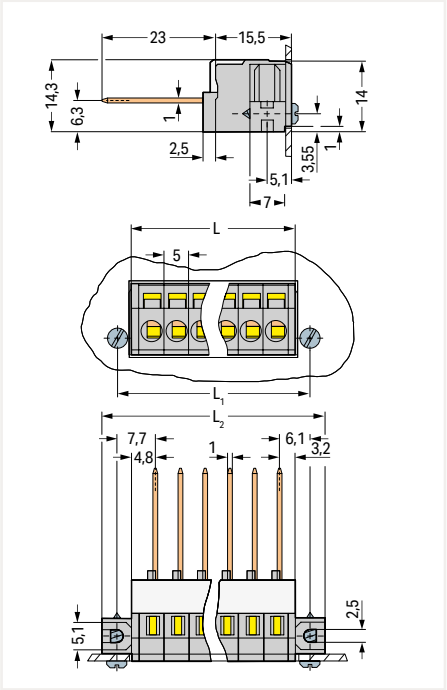
For approvals and corresponding ratings, visit www.wago.com

Feedthrough terminal block ▸ 731 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Terminal strip ▸ Housing sheet thickness (max.): 1.5 mm



Pole No.	Item No.	PU
2	731-132	50
3	731-133	50
4	731-134	25
5	731-135	25
6	731-136/048-000	25
7	731-137/048-000	25
8	731-138/048-000	25
9	731-139/048-000	25
10	731-140/048-000	10
11	731-141/048-000	10
12	731-142/048-000	10



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm
for plate thickness up to 1.5 mm

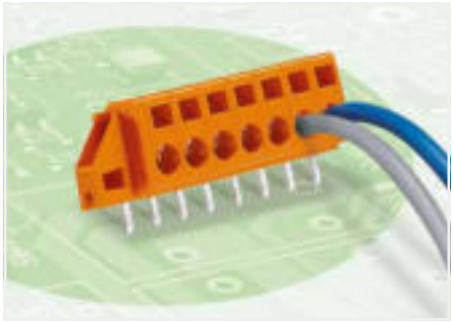
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking
- Versions without mounting flanges

Feedthrough terminal block ▸ 731 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Terminal strip ▸ Housing sheet thickness (max.): 1.5 mm



- Feedthrough PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- With flanges for PCB or front-panel mounting – either flush with enclosure or protruding

Electrical Data			
Pin spacing	**5.08 mm / 0.2 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	5 A	5 A	5 A
Approbations per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	5 A	5 A	5 A
Approbations per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	-
Rated current	5 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²
Connection technology 2	Wire-wrap pin

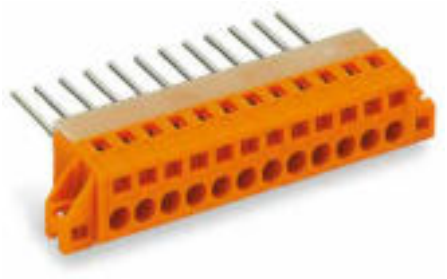
Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

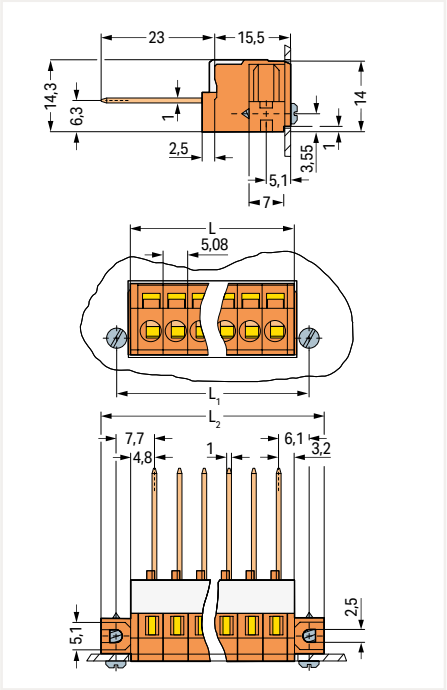
Ferrule	Page 879
Marking	Page 865
Mounting	Page 869
Tool	Page 870
See technical section for further information	
For approvals and corresponding ratings, visit www.wago.com	

Feedthrough terminal block ▸ 731 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm / 0.2 inch ▸ Terminal strip ▸ Housing sheet thickness (max.): 1.5 mm



Pole No.	Item No.	PU
2	731-162	50
3	731-163	50
4	731-164	25
5	731-165	25
6	731-166/048-000	25
7	731-167/048-000	25
8	731-168/048-000	25
9	731-169/048-000	25
10	731-170/048-000	10
11	731-171/048-000	10
12	731-172/048-000	25



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm
for plate thickness up to 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

- Other pole numbers
- Other colors
- Direct marking
- Versions without mounting flanges

12

WAGO Specialty Connectors

WAGO Specialty Connectors

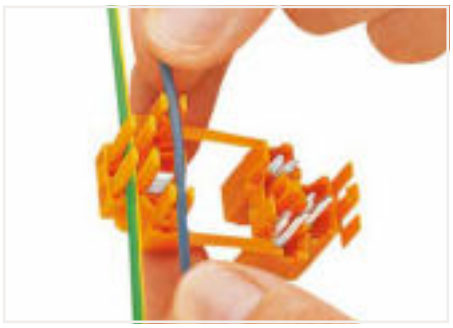
	Series	Page
Female Connector ▸ Pole No.: 3 ▸ IDC ▸ 0.75 … 1.5 mm² „f-st"	730	838
Male Connector ▸ Pole No.: 3 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 0.08 … 2.5 mm² (18 … 16 AWG)		840
Female Connector ▸ Pole No.: 6 ▸ IDC ▸ 0.75 … 1.5 mm² „f-st"		842
Male Connector ▸ Pole No.: 6 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 0.08 … 2.5 mm² (18 … 16 AWG)		844

4-Conductor Modular PCB Connector ▸ for KNX/EIB Bus Coupler Units ▸ PUSH WIRE®	243	846

Accessories and Tools	861

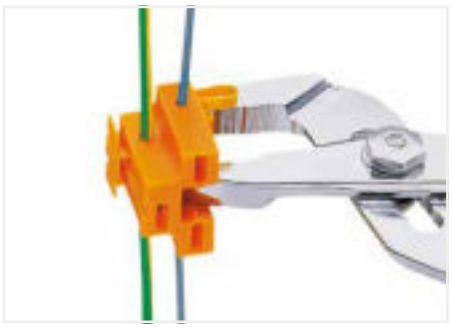
13

Wire-Tap Branch Connectors, 3-Pole
730 Series
Description and Installation

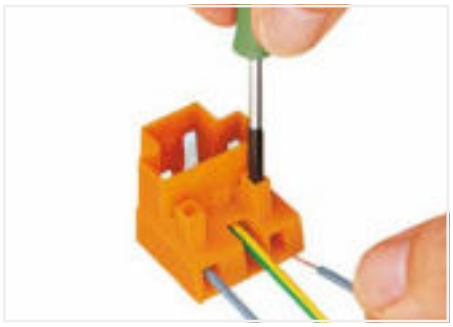


Press conductor into strain relief fingers.

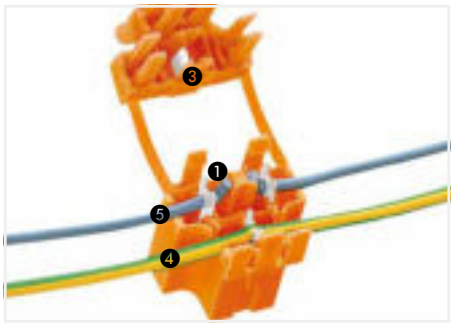
Place upper and lower part of the socket into pre-locking position.



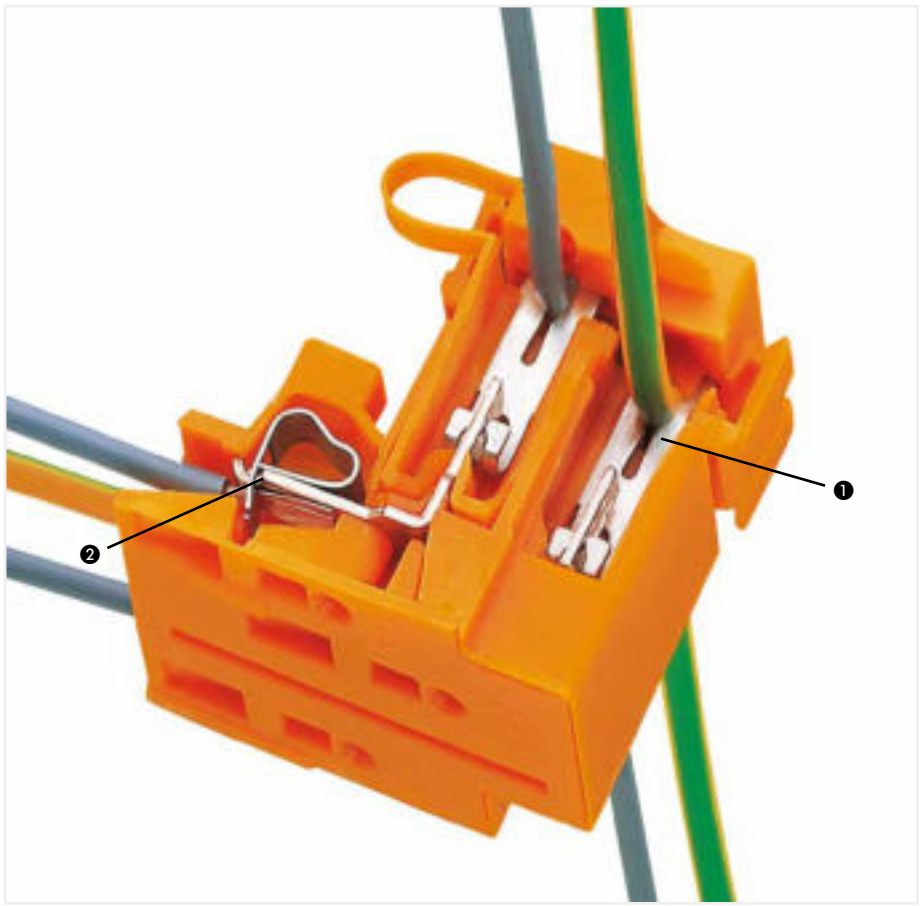
Press into final position using pliers.



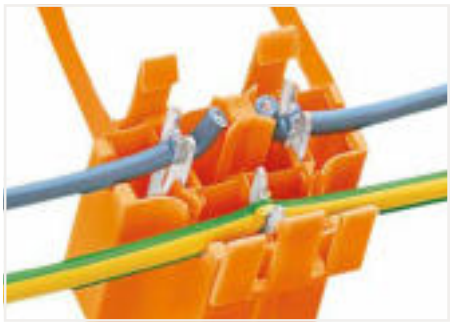
Insert conductors via screwdriver – 3-pole plug equipped with CAGE CLAMP®.



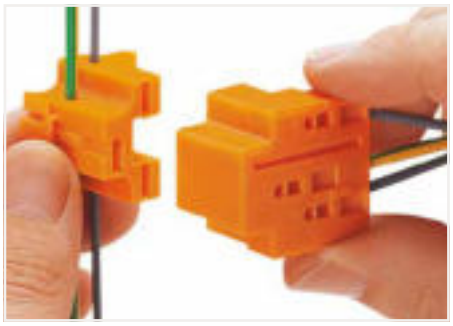
Three-pole socket includes:
1. IDC
2. CAGE CLAMP®
3. Isolation blade
4. IDC contacted ground conductor
5. Cut and IDC contacted "live" conductor contacted "live" conductor



730 Series, 3-pole



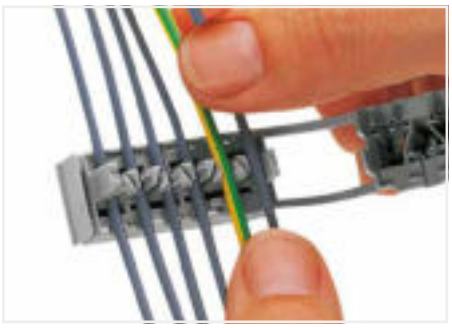
Snapping socket halves together will automatically cut and terminate a "live" conductor without stripping – enables switching applications (e.g., door switches).

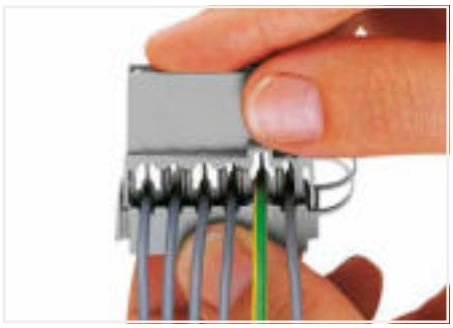


Insert plug into socket.

Wire-Tap Branch Connectors, 6-Pole
730 Series
Description and Installation

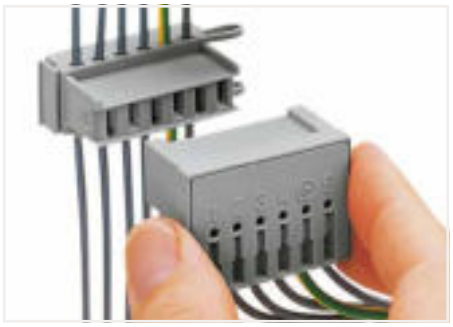
Insert conductors via screwdriver – 6-pole plug equipped with CAGE CLAMP®.


Press conductors into strain relief fingers.

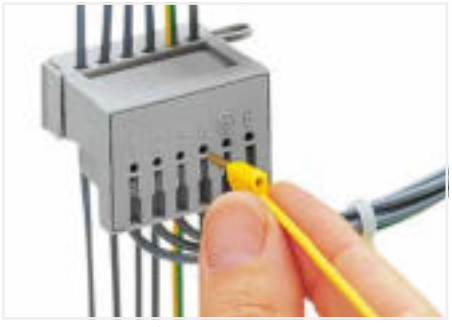

Place upper and lower part of the socket into pre-locking position.

730 Series

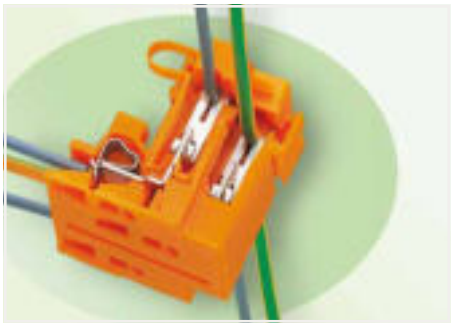
Press into final position using pliers.


Insert plug into socket.

Marking via side marker carrier.


Testing via 2.3 mm Ø test plug.

Socket ▸ 730 Series
Pole No.: 3 ▸ IDC ▸ Color: orange



- Sockets with IDC for tapping individual conductors without stripping
- Three-pole sockets automatically cut “live” conductors (e.g., door switches in elevator shafts)
- Sockets available with additional mounting flanges

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	

Connection Data	
Connection technology	IDC
Fine-stranded conductor	0.75 … 1.5 mm² / 18 … 16 AWG

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Brass
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

13

Test and measurement Page 886
Tool Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Socket ▸ 730 Series
Pole No.: 3 ▸ IDC ▸ Color: orange

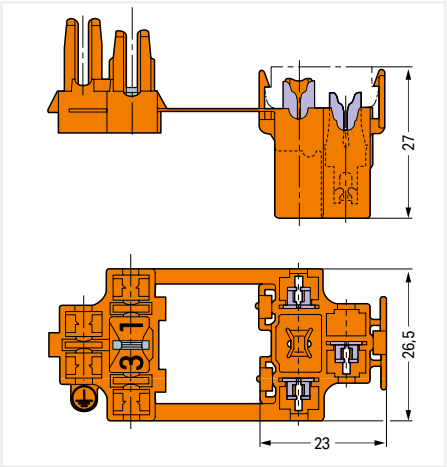
	Mounting type: Mounting flange

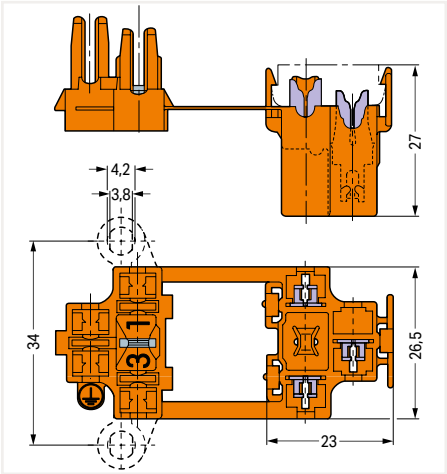
730-103

Color	Pole No.	Item No.	PU
orange	3	730-103	50

730-123

Color	Pole No.	Item No.	PU
orange	3	730-123	50

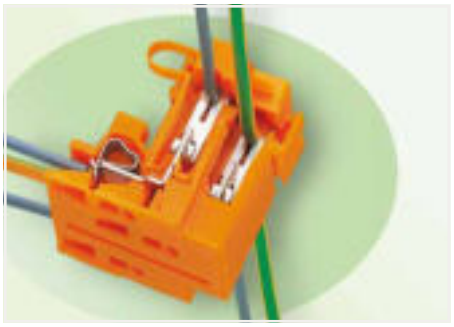




PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Male connector ▸ 730 Series

Pole No.: 3 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange



- Plugs with CAGE CLAMP® for the universal connection of all conductor types

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

13

Test and measurement Page 886
Tool Page 870

See technical section for further information

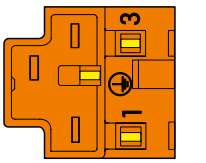
For approvals and corresponding ratings, visit www.wago.com

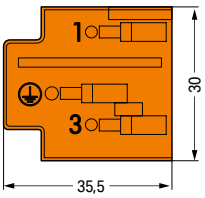
Male connector ▸ 730 Series

Pole No.: 3 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange

730-113

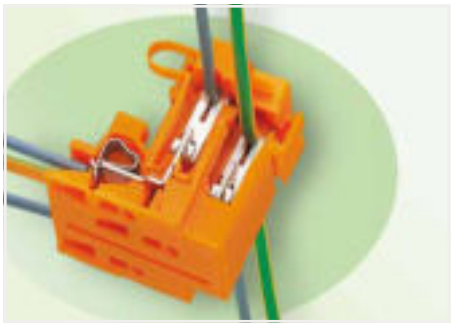
Color	Pole No.	Item No.	PU
orange	3	730-113	50





PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Socket ▸ 730 Series
Pole No.: 6 ▸ IDC ▸ Color: gray



- Sockets with IDC for tapping individual conductors without stripping
- Three-pole sockets automatically cut “live” conductors (e.g., door switches in elevator shafts)
- Sockets available with additional mounting flanges

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	

Connection Data	
Connection technology	IDC
Fine-stranded conductor	0.75 … 1.5 mm² / 18 … 16 AWG

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Brass
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

13

Test and measurement Page 886
Tool Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

Socket ▸ 730 Series
Pole No.: 6 ▸ IDC ▸ Color: gray

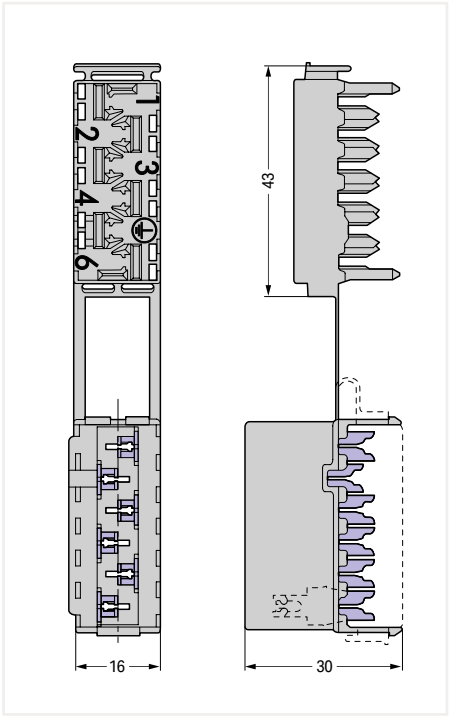
	Mounting type: Mounting flange

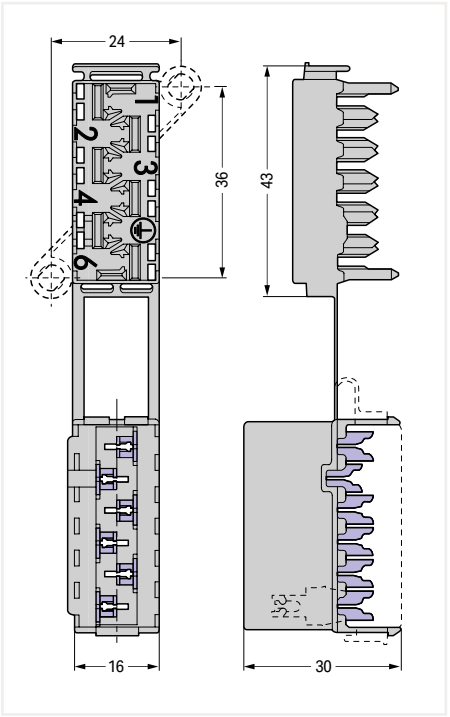
730-106

Color	Pole No.	Item No.	PU
gray	6	730-106	50

730-126

Color	Pole No.	Item No.	PU
gray	6	730-126	50

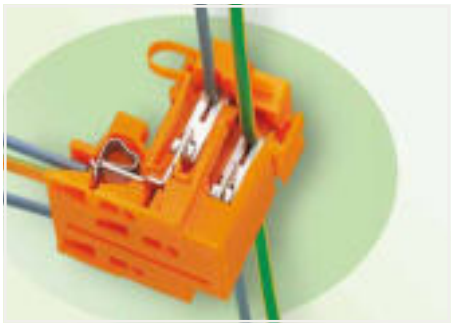




PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Male connector ▸ 730 Series

Pole No.: 6 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray



- Plugs with CAGE CLAMP® for the universal connection of all conductor types

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	10 A	10 A	10 A	
Approbations per	UL 1059			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	
Approbations per	CSA			
Use group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

13

Test and measurement Page 886
Tool Page 870

See technical section for further information

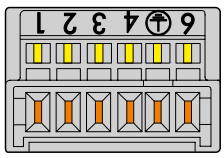
For approvals and corresponding ratings, visit www.wago.com

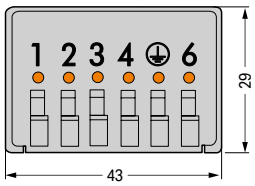
Male connector ▸ 730 Series

Pole No.: 6 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray

730-116

Color	Pole No.	Item No.	PU
gray	6	730-116	50





PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

4-conductor modular PCB connector ▸ 243 Series
for KNX/EIB bus coupler units ▸ PUSH WIRE®

- Compact, 4-conductor KNX/EIB connectors with PUSH WIRE® connection
- Push-in termination of solid conductors
- Four-conductor entries allow devices to be replaced without disrupting the KNX/EIB bus connection

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	100 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	6 A	6 A	6 A	

Connection Data	
Connection technology	PUSH WIRE®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor diameter	0.6 … 0.8 mm
Conductor diameter (note)	When using different conductor diameters
Conductor diameter 2	1 mm
Conductor diameter (note) 2	When using identical conductor diameters

Material Data	
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

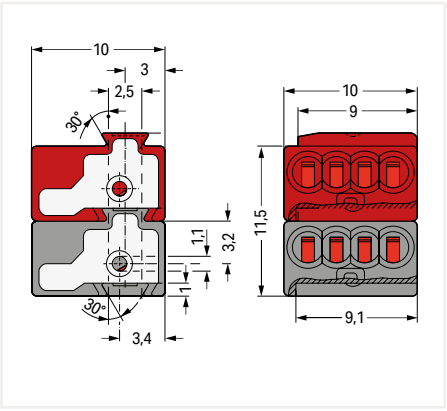
Marking Page 865

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

4-conductor modular PCB connector ▸ 243 Series
for KNX/EIB bus coupler units ▸ PUSH WIRE®

Color	Item No.	PU (SPU)
◯ light gray/yellow	243-212	500 (50)
◯ dark gray/red	243-211	500 (50)



The KNX bus system is the intelligent solution to simplify existing building installation control. Instead of many different conventional wiring styles, the KNX bus system offers a flexible general solution for every application in the field of switching, controlling, measuring, monitoring and signaling.

The decentralized KNX system consists of active and intelligent modules. The system can be customized using the different KNX components.

For example, pairs of sensors/actuators control:

– lighting

– window blinds

– heating/ventilation

– energy management systems

– information display/transmission

Command data is transmitted via twisted-pair bus cable, which is connected to the sensors and actuators by WAGO PUSH WIRE® connectors.

The sensors transmit the commands as “telegrams” to the actuators via the bus. Once the information is gathered, the commands are performed by the actuators. An address is assigned to each “telegram” so that only a defined transmitter is allowed to activate a specified receiver.The address assignment is done using a programming tool.

The bus system is divided into “lines” (segments). The bus lines can be laid out either in a line, star or tree topology. WAGO’s PUSH WIRE® connectors connect the different branches to one another in the junction boxes.

New components can be easily added to the existing bus, permitting future expansion of the installation. When future reallocation of rooms, floors or buildings is required, the installation remains unchanged, so that only the sensors must be reassigned to the actuators.

13

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

WAGO Empty Housings

WAGO Empty Housings

	Series	Page
Modular Empty Housings ▸ Housing Width: 12.5 mm and 22.5 mm ▸ for DIN-Rail	2857	852

Stripboards ▸ for Modular Empty Housings	2857	854

Mount PCB Carriers ▸ for DIN-Rail	288	856
Mounting Feet ▸ for DIN-Rail	209	858

Accessories and Tools		861

Modular Empty Housings
Overview and Configuration
2857 Series

Supplied as a pre-assembled unit:

1. Pre-assembled unit

2. Insert and solder the PCB.

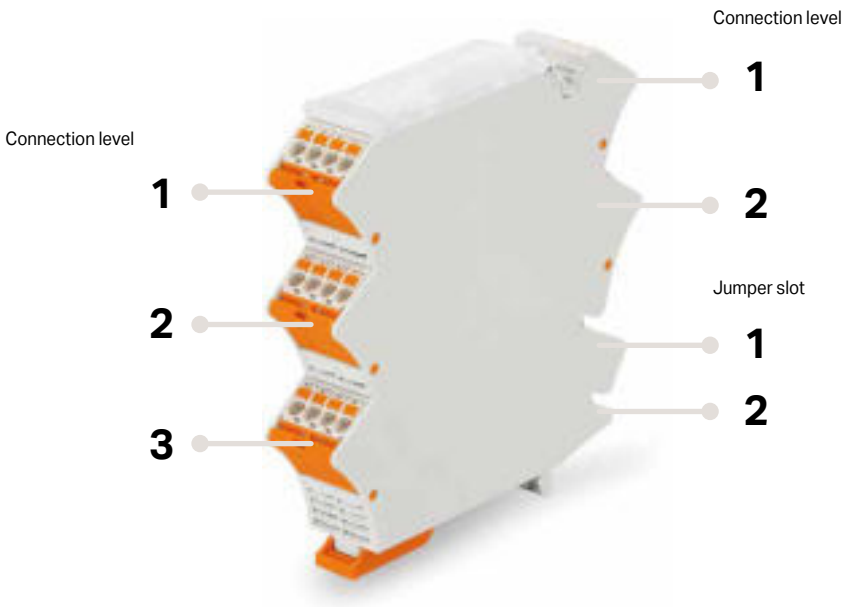
3. Snap on the side wall.

Housing configuration:

Housing width: 12.5 mm	 2857-101	 2857-102	 2857-103	–
Housing width: 22.5 mm	 2857-121	 2857-122	 2857-123	 2857-124
Connection levels	2-2	3-2	3-3	1-1
Jumper slots	2-2	0-2	0-0	2-2

Mixed configuration (fixed/removable/empty slot) upon request!

Example of connection level and jumper slot assignment:



Connection levels	3-2
Jumper slots	0-2

Modular Empty Housings ▶ for DIN-35 Rail
2857 Series

- *picoMAX*® female connectors; with coding keys; 4-pole
- Pre-assembled unit
- Flexible conductor termination
- Customizable connection levels
- Various marking options available
- Sealable, transparent cover
- Commoning via 859-402 Jumpers

Electrical Data (*pico*MAX® 5.0 Female Connector)				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	16 A	16 A	16 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry direction to PCB	45 °
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.2 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.2 … 2.5 mm²

Material data (*pico*MAX® 5.0 Female Connector)	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Limit temperature range	–60 … +100 °C
Contact material	Electrolytic copper (E_{CU})
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact plating	Tin-plated

Material Data (Empty Housing)	
Housing material	PC
Flammability class	V0
Ambient operating temperature	–40 … +70 °C
Storage temperature	–40 … +85 °C

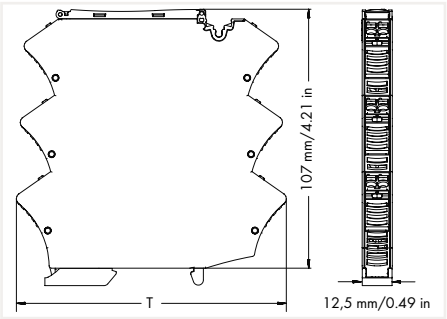
14

Ferrule	Page 879
General accessories	Page 853
Jumper	Page 853
Marking	Page 862
Tool	Page 870

See technical section for further information

For approvals and corresponding ratings, visit www.wago.com

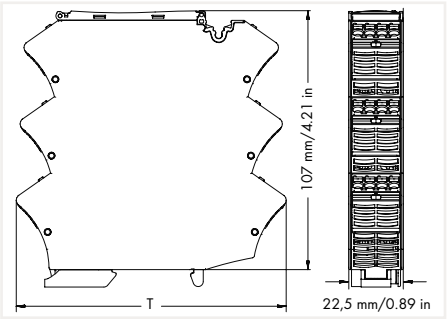
Modular Empty Housings ▶ for DIN-35 Rail
2857 Series



12.5 mm wide housing		
Description	Item No.	PU
2-2 connection levels; 2-2 jumper slots	**2857-101**	10
3-2 connection levels; 0-2 jumper slots	**2857-102**	10
3-3 connection levels; 0-0 jumper slots	**2857-103**	10

Technical Data: Empty Housing	
Dimensions (mm) W x H x D	12.5 x 107 x 108 (2857-101) 12.5 x 107 x 110 (2857-102) 12.5 x 107 x 112 (2857-103) Height from upper-edge of DIN-35 rail
Power loss	2 W

Accessories		
Description	Item No.	PU
Coding pin carrier	**2092-1610**	1
Jumpers	**859-402**	1



22.5 mm wide housing		
Description	Item No.	PU
2-2 connection levels; 2-2 jumper slots	**2857-121**	5
3-2 connection levels; 0-2 jumper slots	**2857-122**	5
3-3 connection levels; 0-0 jumper slots	**2857-123**	5
1-1 connection levels; 2-2 jumper slots	**2857-124**	5

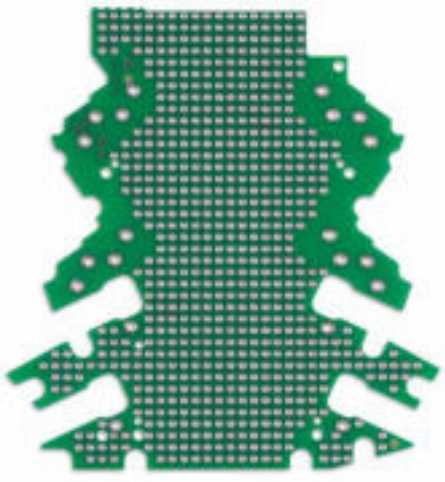
Technical Data: Empty Housing	
Dimensions (mm) W x H x D	22.5 x 107 x 108 (2857-121) 22.5 x 107 x 110 (2857-122) 22.5 x 107 x 112 (2857-123) 22.5 x 107 x 105 (2857-124) Height from upper-edge of DIN-35 rail
Power loss	3 W

Accessories		
Description	Item No.	PU
Coding pin carrier	**2092-1610**	1
Jumpers	**859-402**	1

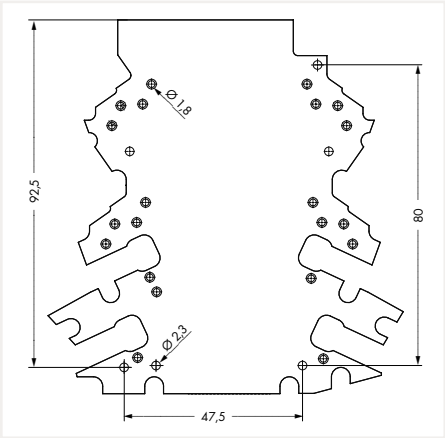
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Stripboards ▶ for Installation in Empty Housings ▶ for DIN-35 Rail 2857 Series

Connection levels: 2-2; Jumper slots: 2-2

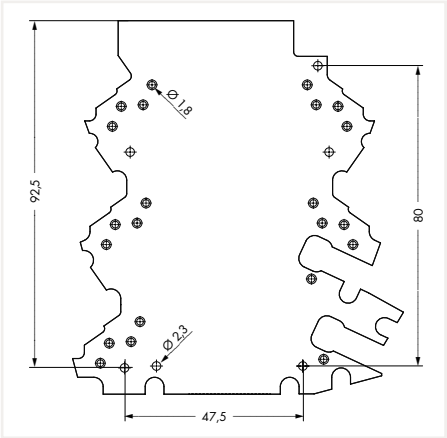


	Item No.	PU
	2857-191/3140-000	5



Connection levels: 3-2; Jumper slots: 0-2

	Item No.	PU
	2857-192/3140-000	5

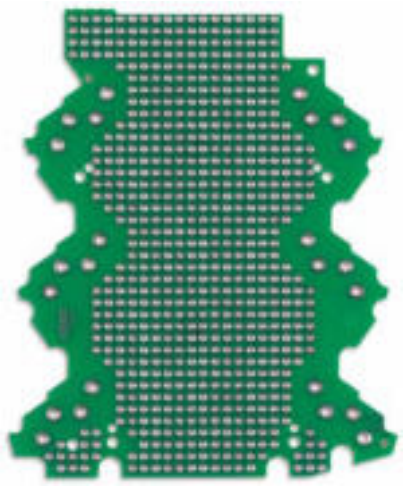


14

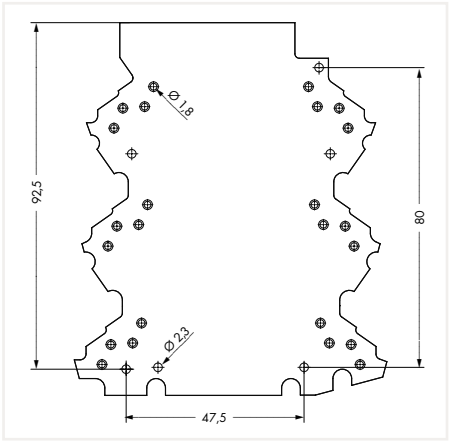
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Stripboards ▶ for Installation in Empty Housings ▶ for DIN-35 Rail 2857 Series

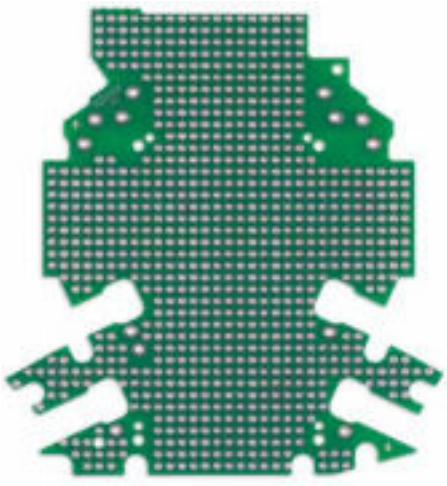
Connection levels: 3-3; Jumper slots: 0-0



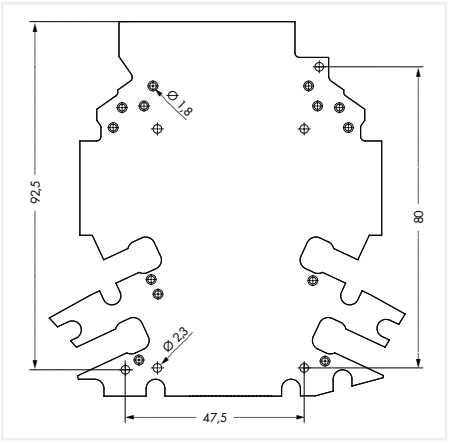
	Item No.	PU
	2857-193/3140-000	5



Connection levels: 1-1; Jumper slots: 2-2

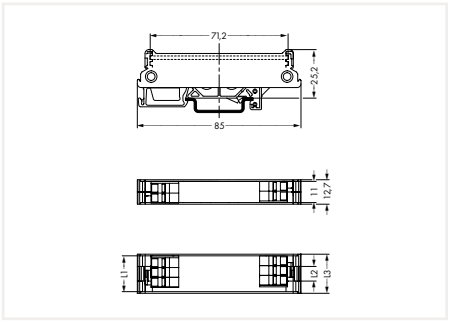


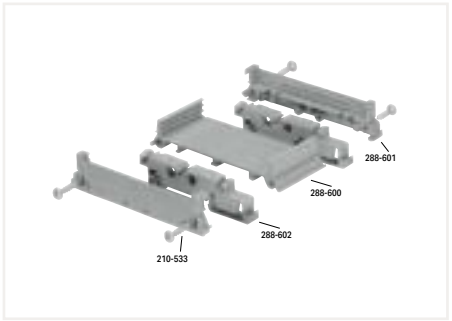
	Item No.	PU
	2857-194/3140-000	5



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

DIN-Rail Mount PCB Carriers
288 Series



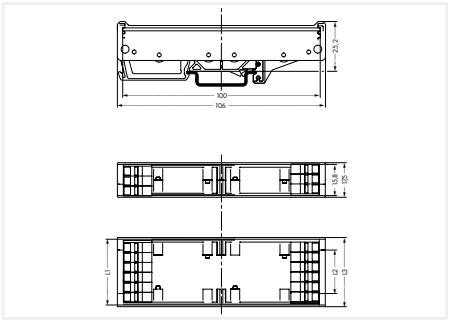


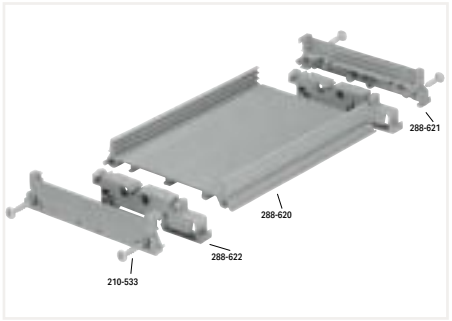
Mounting carrier (size 1)

Length calculation for a complete mounting carrier:

PCB length: L1
Base length: L2 = L1 − 11 mm
Mounting carrier length: L3 = L1 + 2 mm
Lateral cover (size 1): 6.35 mm thick
Free space between base and PCB (when using upper PCB groove): 5 mm
PCB tolerances: 1.5 mm ± 0.2 mm (thickness), ± 0.2 mm (length/width); −0.1/+0.3 for milling contours

Mounting carrier; size 1		
Description	Item No.	PU
Lateral cover; size 1; small; 6.35 mm thick	288-601	1
Mounting foot for DIN-35 rail	288-602	1
Carrier base; size 1; 1 m long	288-600	1





Mounting carrier (size 2)

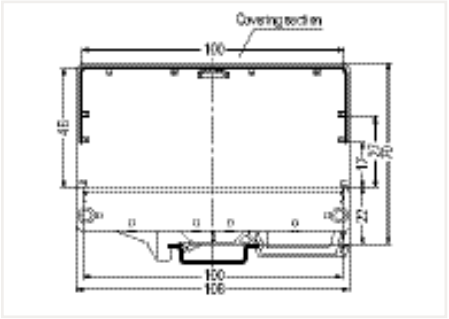
Length calculation for a complete mounting carrier:

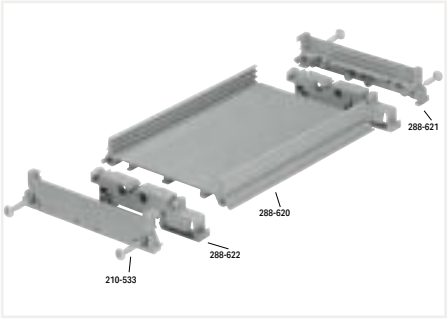
PCB length: L1
Base length: L2 = L1 − 15.8 mm
Mounting carrier length: L3 = L1 + 2 mm
Cover length: L4 = L1
Lateral cover (size 2): 8.75 mm thick
Free space between base and PCB (when using upper PCB groove): 5 mm
PCB tolerances: 1.5 mm ± 0.2 mm (thickness); ± 0.2 mm (length/width); −0.1/+0.3 for milling contours

Mounting carrier; size 2		
Description	Item No.	PU
Lateral cover; size 2; small; 8.75 mm thick	288-621	1
Mounting foot for DIN-35 rail	288-622	1
Carrier base; size 2; 1 m long	288-620	1

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

DIN-Rail Mount PCB Carriers
288 Series





Mounting carrier (size 2)

Length calculation for a complete mounting carrier:

PCB length: L1
Base length: L2 = L1 – 15.8 mm
Mounting carrier length: L3 = L1 + 2 mm
Cover length: L4 = L1
Lateral cover (size 2): 8.75 mm thick
Free space between base and PCB (when using upper PCB groove): 5 mm
PCB tolerances: 1.5 mm ± 0.2 mm (thickness); ± 0.2 mm (length/width); –0.1/+0.3 for milling contours

Mounting carrier; size 2; with cover		
Description	Item No.	PU
Lateral cover; size 2; large; 8.75 mm thick	**288-626**	1
Cover; size 2; 1 m long	**288-627**	1

Accessories; for all products on this page

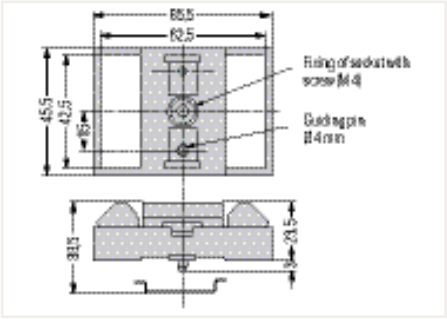
Marking strips

Description	Item No.	PU
Phillips screw 2.9 x 13*	**210-533**	25
Marking strip 7.5 x 0.5 mm; 1 m long; translucent	**709-196**	1

* Two pieces per lateral cover; for a module length of 35 mm or higher; lateral covers must be riveted for smaller modules. Rivet length depends on module length (rivets are not offered by WAGO).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

DIN-Rail-Mount PCB Carriers and Feet
Series 288



Mounting carrier			
Description		Item No.	PU
Mounting carrier	For screw mounting or DIN-rail mounting via universal snap-on type mounting feet (to be ordered separately)	**288-001**	1
Universal mounting foot	Snap-on type; for DIN-15, DIN-32 and DIN-35 rails	**288-002**	10
Mounting carrier for PCBs	Suitable for a "Eurocard" PCB (100 x 160 mm)	**288-003**	1

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

WAGO Accessories and WAGO Tools

WAGO Accessories and WAGO Tools

Marking Systems 862

DIN-Rails 868

Operating Tools 870

Cable Strippers 874

Stripping Tools 876

Crimping Tools for Ferrules 878

Ferrules 879

Cable Cutter 882

„Alu-Plus" Contact Paste 883

Test and Measurement Devices 884

Test Plugs 886

Marking System

WMB marker card; plain; 10 strips with 10 markers/card			
Color	5 mm Item No.	5 … 5.2 mm Item No.	Pack. Unit
white	793-501	793-5501	5
yellow	793-501/000-002	793-5501/000-002	5
red	793-501/000-005	793-5501/000-005	5
blue	793-501/000-006	793-5501/000-006	5
gray	793-501/000-007	793-5501/000-007	5
orange	793-501/000-012	793-5501/000-012	5
light green	793-501/000-017	793-5501/000-017	5
green	793-501/000-023	793-5501/000-023	5
violet	793-501/000-024	793-5501/000-024	5

WMB Inline; plain; 1,500 WMB markers (5 mm)/reel; stretchable 5 … 5.2 mm		
Color	3.5 mm Item No.	Pack. Unit
white	2009-115	1

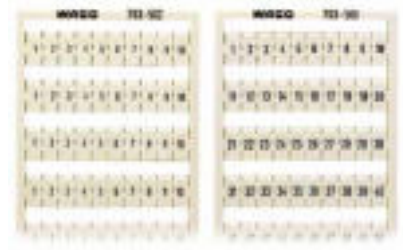
Mini-WSB marker card; plain; 10 strips with 10 markers/card		
Color	3.5 mm Item No.	Pack. Unit
white	248-501	5
yellow	248-501/000-002	5
red	248-501/000-005	5
blue	248-501/000-006	5
gray	248-501/000-007	5
orange	248-501/000-012	5
light green	248-501/000-017	5
green	248-501/000-023	5
violet	248-501/000-024	5

Mini-WSB Inline; plain; 1,700 markers (5 mm)/reel; stretchable 5 … 5.2 mm		
Color	3.5 mm Item No.	Pack. Unit
white	2009-145	1

Felt-tip pen; for permanent marking		
	Item No.	Pack. Unit
	210-110	1

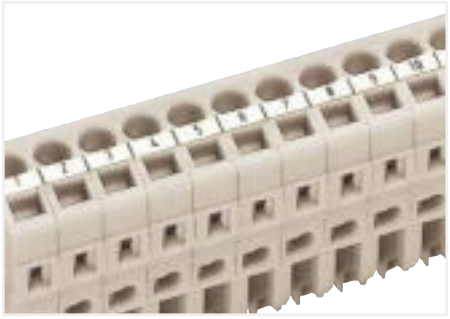
Printed Marker Card

Mini-WSB marker card; e.g., for 745 and 831 Series; 10 strips with 10 markers per card; Horizontal marking; Consecutive numbers/letters per strip		
Marking per card	Item No.	Pack. Unit
1 … 10 (10x)	248-502	5 cards
11 … 20 (10x)	248-503	5 cards
21 … 30 (10x)	248-504	5 cards
31 … 40 (10x)	248-505	5 cards
41 … 50 (10x)	248-506	5 cards
51 … 60 (10x)	248-569	5 cards
61 … 70 (10x)	248-570	5 cards
71 … 80 (10x)	248-571	5 cards
81 … 90 (10x)	248-572	5 cards
91 … 100 (10x)	248-573	5 cards
1 … 50 (2x)	248-566	5 cards
51 … 100 (2x)	248-507	5 cards
101 … 150 (2x)	248-508	5 cards
151 … 200 (2x)	248-509	5 cards
201 … 300 (2x)	248-510	5 cards
301 … 400 (2x)	248-511	5 cards
401 … 500 (2x)	248-512	5 cards
501 … 600 (2x)	248-513	5 cards
601 … 700 (2x)	248-514	5 cards
701 … 800 (2x)	248-515	5 cards
801 … 900 (2x)	248-516	5 cards
901 … 1000 (2x)	248-517	5 cards
1 … 9, ; (10x)	248-565	5 cards
U, V, W, N, PE, U, V, W, N, PE; (10x)	248-474	5 cards
L1, L2, L3, N, PE, L1, L2, L3, N, PE; (10x)	248-472	5 cards

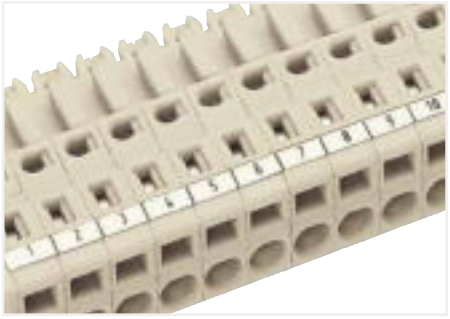


WMB marker card; e.g., for 745 Series (4 mm² / 10 mm pin spacing) and 831 Series; 10 strips with 10 markers per card; Horizontal marking; Consecutive numbers per strip		
Marking per card	Item No.	Pack. Unit
1 … 10 (10x)	793-502	5 cards
11 … 20 (10x)	793-503	5 cards
21 … 30 (10x)	793-504	5 cards
31 … 40 (10x)	793-505	5 cards
41 … 50 (10x)	793-506	5 cards
51 … 60 (10x)	793-569	5 cards
61 … 70 (10x)	793-570	5 cards
71 … 80 (10x)	793-571	5 cards
81 … 90 (10x)	793-572	5 cards
91 … 100 (10x)	793-573	5 cards
1 … 50 (2x)	793-566	5 cards
51 … 100 (2x)	793-507	5 cards
101 … 150 (2x)	793-508	5 cards
151 … 200 (2x)	793-509	5 cards
201 … 300 (2x)	793-510	5 cards
301 … 400 (2x)	793-511	5 cards
401 … 500 (2x)	793-512	5 cards
501 … 600 (2x)	793-513	5 cards
601 … 700 (2x)	793-514	5 cards
701 … 800 (2x)	793-515	5 cards
801 … 900 (2x)	793-516	5 cards
901 … 1000 (2x)	793-517	5 cards
1 … 9, ; (10x)	793-565	5 cards
L1, L2, L3, N, PE, L1, L2, L3, N, PE; (10x)	793-472	5 cards

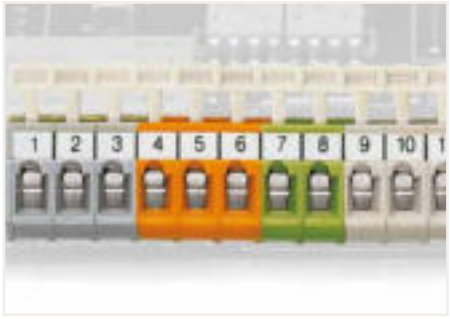
Marking Card; Self-Adhesive Marking Strips



Marking *MCS* Connectors – parallel to conductor entry.



Marking *MCS* Connectors – perpendicular to conductor entry.



Marking PCB terminal blocks (256 Series).

Marking card for 2.5 mm pin spacing; for 218, 233, 234, 250 Series and *MCS* MICRO male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (400 x)	2.3 mm	210-331/250-202	1 card/100 strips
17 … 32 (400 x)	2.3 mm	210-331/250-204	1 card/100 strips
33 … 48 (400 x)	2.3 mm	210-331/250-206	1 card/100 strips
1 … 48 (400 x)	2.3 mm	210-331/250-207	1 card/100 strips

Marking card for 2.54 mm pin spacing; for 218, 233, 234, 250 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (400 x)	2.3 mm	210-331/254-202	1 card/100 strips
17 … 32 (400 x)	2.3 mm	210-331/254-204	1 card/100 strips
33 … 48 (400 x)	2.3 mm	210-331/254-206	1 card/100 strips
1 … 48 (100 x)	2.3 mm	210-331/254-207	1 card/100 strips

Marking card for 3.5 mm pin spacing; for 250, 252, 739, 805 Series and *MCS* MINI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (240 x)	3 mm	210-332/350-202	1 card/80 strips
17 … 32 (240 x)	3 mm	210-332/350-204	1 card/80 strips
33 … 48 (240 x)	3 mm	210-332/350-206	1 card/80 strips

Marking card for 3.81 mm pin spacing; for 235, 734, 735, 739 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (160 x)	3 mm	210-332/381-202	1 card/80 strips
17 … 32 (160 x)	3 mm	210-332/381-204	1 card/80 strips
33 … 48 (160 x)	3 mm	210-332/381-206	1 card/80 strips
1 … 32 (80 x)	3 mm	210-332/381-205	1 card/80 strips

Marking card for 3.96 mm pin spacing; for 235 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (160 x)	3 mm	210-332/396-202	1 card/80 strips
17 … 32 (160 x)	3 mm	210-332/396-204	1 card/80 strips
33 … 48 (160 x)	3 mm	210-332/396-206	1 card/80 strips
1 … 32 (80 x)	3 mm	210-332/396-205	1 card/80 strips

Marking card for 4 mm pin spacing; for 235 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (160 x)	3 mm	210-332/400-202	1 card/80 strips
17 … 32 (160 x)	3 mm	210-332/400-204	1 card/80 strips
33 … 48 (160 x)	3 mm	210-332/400-206	1 card/80 strips
1 … 32 (80 x)	3 mm	210-332/400-205	1 card/80 strips

Marking Card; Self-Adhesive Marking Strips

Marking card for 5 mm pin spacing; for 235, 236, 250, 253, 254, 255, 256, 257, 736, 737, 738, 739, 740, 741, 745, 806, 816 Series and *MCS* MIDI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 16 (160 x)	3 mm	210-332/500-202	1 card/80 strips
17 ... 32 (160 x)	3 mm	210-332/500-204	1 card/80 strips
33 ... 48 (160 x)	3 mm	210-332/500-206	1 card/80 strips
1 ... 32 (80 x)	3 mm	210-332/500-205	1 card/80 strips

Marking card for 5 mm pin spacing; for 804 Series and *MCS* MIDI male and female connectors with CAGE CLAMP® connection; Marking parallel to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 12 (300 x)	2.3 mm	210-331/500-103	1 card/100 strips
13 ... 24 (300 x)	2.3 mm	210-331/500-104	1 card/100 strips

Marking card for 5.08 mm pin spacing; for 235, 236, 254, 255, 256, 257, 736, 737, 738, 739, 741 Series and *MCS* MIDI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 16 (160 x)	3 mm	210-332/508-202	1 card/80 strips
17 ... 32 (160 x)	3 mm	210-332/508-204	1 card/80 strips
33 ... 48 (160 x)	3 mm	210-332/508-206	1 card/80 strips
1 ... 32 (80 x)	3 mm	210-332/508-205	1 card/80 strips

Marking card for 5.08 mm pin spacing; for *MCS* MIDI male and female connectors with CAGE CLAMP® connection; Marking parallel to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 12 (200 x)	2.3 mm	210-331/508-103	1 card/100 strips
13 ... 24 (200 x)	2.3 mm	210-331/508-104	1 card/100 strips

Marking card for 5.75 mm pin spacing; for 243 Series			
Marking	Strip height	Item No.	Pack. Unit
1 ... 12 (160 x)	3 mm	210-332/575-103	1 card/80 strips

Marking card for 7 mm pin spacing; for 826 Series			
Marking	Strip height	Item No.	Pack. Unit
1 ... 12 (160 x)	3 mm	210-332/700-103	1 card/80 strips
12 ... 1 (160 x)	3 mm	210-332/700-102	1 card/80 strips

Marking card for 7.5 mm pin spacing; for 235, 236, 239, 250, 254, 255, 256, 257, 736, 737, 739, 741, 746, 745 Series and *MCS* MIDI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 20 (80 x)	3 mm	210-332/750-020	1 card/80 strips

Marking card for 7.5 mm pin spacing; for 804 Series and *MCS* MIDI male and female connectors with CAGE CLAMP® connection; Marking parallel to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 16 (100 x)	2.3 mm	210-331/750-202	1 card/100 strips

Marking card for 7.62 mm pin spacing; for 235, 236, 254, 255, 256, 257, 736, 737, 739, 741 Series and *MCS* MIDI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 20 (80 x)	3 mm	210-332/762-020	1 card/80 strips

Marking card for 7.62 mm pin spacing; for *MCS* MIDI male and female connectors with CAGE CLAMP® connection; Marking parallel to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 16 (100 x)	2.3 mm	210-331/762-202	1 card/100 strips

Marking Card; Self-Adhesive Marking Strips

Marking card for 7.62 mm pin spacing; for *MCS* MAXI male and female connectors			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (100 x)	5 mm	210-334/762-202	1 card/48 strips

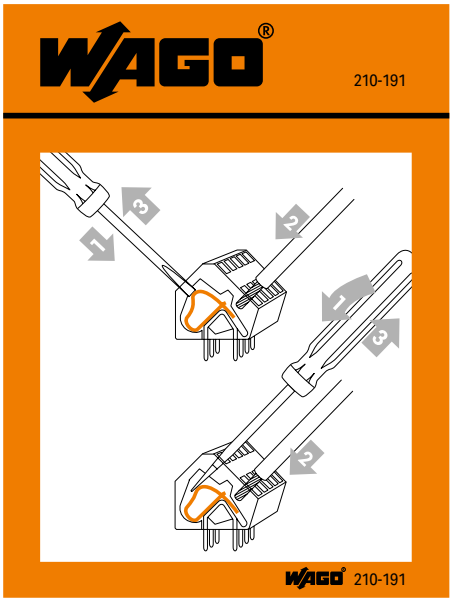
Marking card for 10 mm pin spacing; for 235, 236, 254, 255, 256, 257, 736, 737, 741, 745 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (80 x)	3 mm	210-332/1000-202	1 card/80 strips
17 … 32 (80 x)	3 mm	210-332/1000-204	1 card/80 strips
33 … 48 (80 x)	3 mm	210-332/1000-206	1 card/80 strips

Marking card for 10.16 mm pin spacing; for 235, 236, 254, 255, 256, 257, 736, 737, 741 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (80 x)	3 mm	210-332/1016-202	1 card/80 strips
17 … 32 (80 x)	3 mm	210-332/1016-204	1 card/80 strips
33 … 48 (80 x)	3 mm	210-332/1016-206	1 card/80 strips

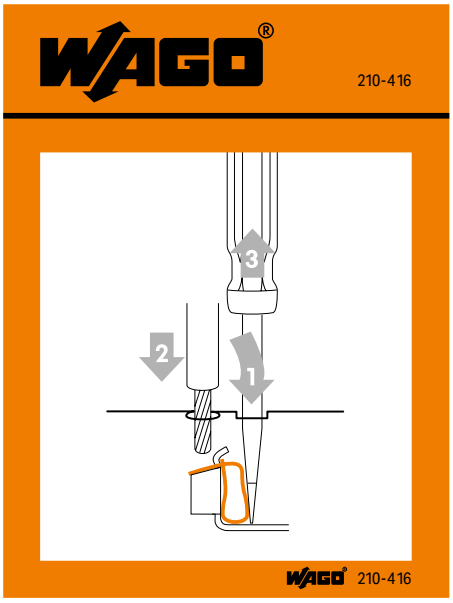
Marking card available for all pin spacings:			
Marking	Strip height	Item No.	Pack. Unit
plain*	2.3 mm	210-331	1 card/100 strips
plain*	3 mm	210-332	1 card/80 strips
plain*	5 mm	210-334	1 card/48 strips
Only separators printed	2.3 mm	210-331/xxxx-001	1 card/100 strips
Only separators printed	3 mm	210-332/xxxx-001	1 card/80 strips
Only separators printed	5 mm	210-334/xxxx-001	1 card/48 strips
Ordering example: 5.08 mm pin spacing; 3 mm strip height: 210-332/508-001		(xxxx = pin spacing)	

* Plain marker cards can be printed via WAGO Smart Script.
WAGO Smart Script is part of the WAGO ProServe® Software. You can download this free software at www.wago.com.

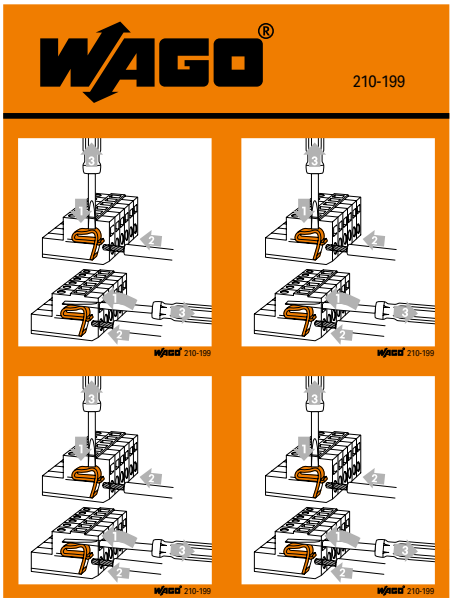
Sticker with Operating Instructions



Sticker with operating instructions; for PCB terminal blocks with CAGE CLAMP® connection; Size: (60 x 63) mm		
Series	Item No.	Pack. Unit
236	**210-191**	100
736, 737 and 738	**210-406**	100



Sticker with operating instructions; for CAGE CLAMP® connection; Size: (60 x 63) mm		
Series	Item No.	Pack. Unit
universal	**210-416**	100

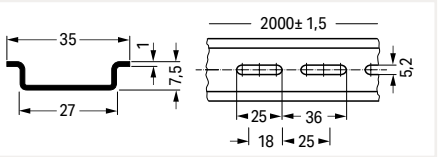


Sticker with operating instructions; for *MCS* Connectors with CAGE CLAMP® connection; Size: (30 x 30) mm x 4 mm		
Series	Item No.	Pack. Unit
universal	**210-199**	100
713	**210-493**	100

DIN-Rail

For the entire range of WAGO DIN-rail types, refer to Full Line Catalog, Volume 1, Rail-Mount Terminal Block Systems, or visit www.wago.com.

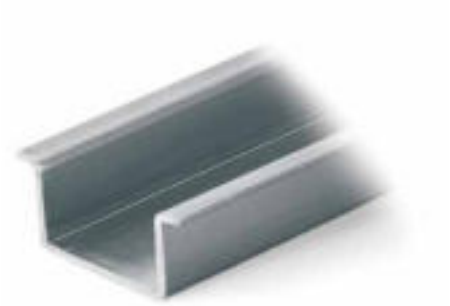
Dimensions in mm



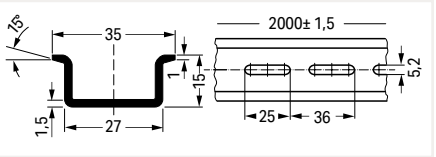
Steel DIN-rail; I_N 76 A (based on 1 m length); 35 x 7.5 mm; 1 mm thick; 2 m long; per EN 60715		
	Item No.	Pack. Unit
unslotted	**210-113**	10 (1)

Hole width: 25 mm; Hole spacing: 36 mm		
slotted	**210-112**	10 (1)

Hole width: 18 mm; Hole spacing: 25 mm		
slotted	**210-115**	1



Dimensions in mm



Steel DIN-rail; I_N 125 A (based on 1 m length); 35 x 15 mm; 1.5 mm thick; 2 m long; similar to EN 60715		
	Item No.	Pack. Unit
unslotted	**210-114**	10 (1)
slotted	**210-197**	10 (1)

Screw

Self-tapping screw; for 1.8 mm Ø mounting hole		
Dimensions	Item No.	Pack. Unit
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screw with nut; e.g., for locking device or mounting flange		
Dimensions	Item No.	Pack. Unit
M 2 x 12 mm	**231-195**	200 (100)
M 2.5 x 10 mm	**231-295**	200 (100)

The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Locking devices enhance connection reliability between male headers with angled solder pins and the PCB. This substantially reduces mechanical stress on both solder pins and joints, particularly when dealing with small lengths and frequent mating cycles.

Operating Tool

Operating tool with a partially insulated shaft; Type 1; (2.5 x 0.4) mm blade

	Item No.	Pack. Unit
	210-719	50 (1)

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

	210-720	50 (1)

Operating tool with a partially insulated shaft; type 3; (5.5 x 0.8) mm blade

	210-721	25 (1)

	210-722	1

Set of operating tools with a partially insulated shaft; Type 1; (2.5 x 0.4) mm blade; Type 2; (3.5 x 0.5) mm blade; Type 3; (5.5 x 0.8) mm blade

	Item No.	Pack. Unit
	210-722	1

Operating tool with a partially insulated shaft; Type 1; (2.5 x 0.4) mm blade; short

	Item No.	Pack. Unit
	210-647	50 (1)

Operating tool with a partially insulated shaft; (2.5 x 0.4) mm blade; short; angled

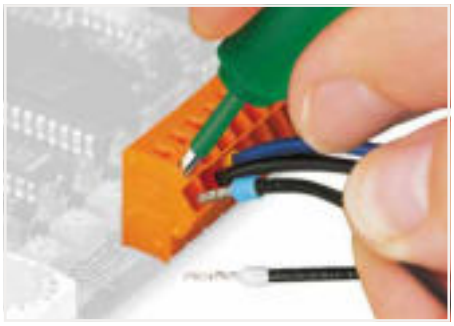
	210-648	50 (1)

Operating tool with a partially insulated shaft; (3.5 x 0.5) mm blade; short

	210-657	50 (1)

Operating tool with a partially insulated shaft; (3.5 x 0.5) mm blade; short; angled

	210-658	50 (1)



Thanks to their blade dimensions, the offered operating tools are ideal for operating both PCB terminal blocks and *MCS* Connectors.

Set of operating tools in a box (210-722)

The offered operating tools with blade dimensions per DIN 5264 are ideal for operating PCB terminal blocks.

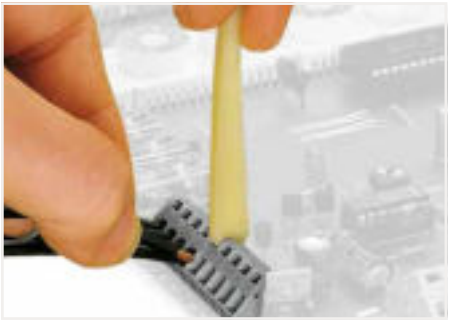
Operating Tool

Operating tool; for 233 and 733 Series		
	Item No.	Pack. Unit
metal; partially insulated; green	**233-335**	50 (1)
insulated; natural	**233-332**	500 (50)
insulated; yellow	**233-331**	500 (25)

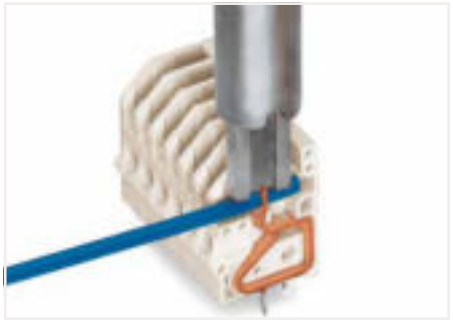
Operating tool; for 236 Series		
	Item No.	Pack. Unit
insulated	**236-332**	400 (50)
metal	**236-335**	500 (1)

Connection tool; for IDC termination; for 251 Series		
	Item No.	Pack. Unit
	206-831	25 (1)

Compared to standard screwdrivers, these operating tools are far more convenient for wiring PCB terminal strips at factory.



Inserting a conductor via operating tool.



Disconnection Tool

Disconnection tool; with two replacement blades in the handle; removes conductors from 251 Series PUSH WIRE® Connectors; "mini" version

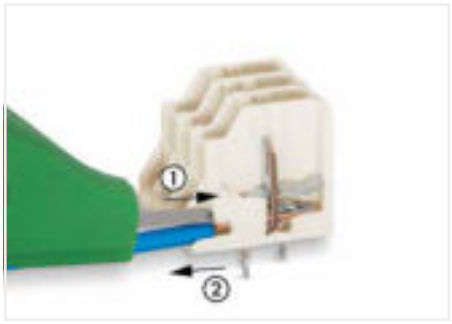
	Item No.	Pack. Unit
	206-830	1

Disconnection tool; for 744 Series

	Item No.	Pack. Unit
	206-841	1

Operating tool, for male and female connectors equipped with CAGE CLAMP® connection, 5/5.08 mm and 7.5/7.62 mm pin spacings

Color	Item No.	Pack. Unit
yellow	210-251	20
red	210-250	20



Disconnection tool includes two replacement blades in the handle.

When operating the handles beyond the locked position, the ratchet allows the tool to open and be removed from the terminal block.
The operating pliers are placed into the upper operating slot of the rail-mount terminal block and the clamp is hooked into the lateral operating slot. The contact is fully opened by pressing the handles together until they engage. This will allow both hands to be used for wiring the terminal blocks.

Disconnection tool includes two replacement blades in the handle.

15

Cable Stripper

Cable knife; for Ø 8 … 28 mm / 0.31 … 1.10 inch; with a unique, changeable cable bracket system; including cable bracket

	Item No.	Pack. Unit
	206-1403	1

Cable knife set; for Ø 4 … 70 mm / 0.16 … 2.75 inch; including all cable brackets in a Sortimo® Box

	Item No.	Pack. Unit
	206-1400	1

Never use this tool on or near live electrical circuits!

To replace the cable bracket, use the new bracket as an operating tool and pull it upwards.

Item-Specific Accessories

Cable bracket; for Ø 4 … 16 mm / 0.16 … 0.63 inch

206-1411 1

Cable bracket; for Ø 8 … 28 mm / 0.31 … 1.10 inch

206-1412 1

Cable bracket; for Ø 27 … 35 mm / 1.06 … 1.38 inch

206-1413 1

Cable bracket; for Ø 35 … 50 mm / 1.38 … 1.97 inch

206-1414 1

Cable bracket; for Ø 50 … 70 mm / 1.97 … 2.75 inch

206-1415 1

The cutting depth of the hook blade can be adjusted with the slider.

Accessories

Spare inside blade

206-1418 1

Spare hook blade

206-1419 1

The cutting depth of the inner knife can be adjusted with the screw.

Strip large cross sections with the hook blade.

Release the fuse before using the hook blade.

15

Cable Stripper

In-socket cable stripper; for Ø 8 … 13 mm / 5/16 … 1/2 inch

Item No.	Pack. Unit
206-1441	1

Product features:

- Extra long design and improved force transmission simplifies stripping in deep device connection sockets
- Special four-blade design for an even more precise round cut
- No cutting depth adjustment required
- TiN-coated blades, TÜV/GS tested
- Ø 8 … 13 mm / 5/16 … 1/2 inch
- Strips all standard round cables, including NYM 3 x 1.5 mm² … 5 x 2.5 mm²

Universal cable stripper; for Ø 8 … 13 mm / 5/16 … 1/2 inch

Item No.	Pack. Unit
206-1442	1

Product features:

- Secure grip achieved with soft padding for non-slip grips
- Technically improved functionality
- New locking mechanism prevents the unwanted opening of the tool
- Absolutely straightforward, quick and easy longitudinal cuts – with innovative internal cable duct
- Redesigned blade layout and intake to stop cable waste from jamming the tool
- Durable and ergonomically designed pocket clip
- Ø 8 … 13 mm / 5/16 … 1/2 inch

Data cable stripper; for Ø 4.5 … 10 mm / 3/16 … 3/8 inch

Item No.	Pack. Unit
206-1451	1

Product features:

- Strip outer insulation and foil sheathing with one tool
- Ideal for stripping PVC-insulated data cables with thin insulation (e.g., Cat 5, Cat 6, Cat 7, twisted-pair cables)
- TiN-coated blades
- Ø 4.5 … 10 mm / 3/16 … 3/8 inch

Cable Stripper

Stripping pliers; for sensor cables; for Ø 3.2 … 4.4 mm / 0.13 … 0.17 inch

	Item No.	Pack. Unit
	206-1481	1

Item-Specific Accessories

Replacement blade set; for Ø 3.2 … 4.4 mm / 0.13 … 0.17 inch

206-1491 1

Stripping pliers; for control cables; for Ø 4.4 … 7 mm / 0.17 … 0.27 inch

	Item No.	Pack. Unit
	206-1482	1

Item-Specific Accessories

Replacement blade set; for Ø 4.4 … 7 mm / 0.17 … 0.27 inch

206-1492 1

Never use this tool on or near live electrical circuits!

The stripping pliers for sensor cables have a blade geometry specially designed for sensor cables with a smaller cross section and a working range from Ø 3.2 mm (for stranded cables and round cables with Ø 3.2 mm … 4.4 mm / 0.13 … 0.17 inch).

The stripping pliers for control cables are designed for stronger cables from Ø 4.4 mm (for stranded cables and round cables with Ø 4.4 mm … 7 mm / 0.17 … 0.27 inch).

These stripping pliers quickly and safely strip cables for connecting, e.g., sensor/actuator distribution boxes, bus couplers and pluggable connectors.

Suitable for:

- Halogen-free PUR sensor/actuator cables
- Highly flexible TPE-U cables
- Control cables
- PUR cables
- PUR/PVC cables
- PVC cables
- Multi-core cables
- Shielded and unshielded cables

Wire Stripper

Wire stripper “Quickstrip Vario”; 0.03 … 16 mm² / 34 … 6 AWG		
	Item No.	Pack. Unit
	206-1125	1

Accessories		
Blade set; Standard; 0.03 … 16 mm² / 34 … 6 AWG		
	206-1126	1
Blade set; V-blade; 0.14 … 4 mm² / 24 … 12 AWG		
	206-1127	1
Blade set; Oval blade; 10 … 16 mm² / 8 … 6 AWG		
	206-1128	1
Spare stripping stop		
	206-1129	1
Spare cut protector		
	206-1131	1
Spare clamping jaws		
	206-1132	1

Cutting a conductor.

Partially stripping a conductor.

Wire Stripper:

- Automatically adjust to conductor size
- Stripping blades cause no damage to conductor strands
- Gripping pressure of jaws adjusts automatically to conductor insulation diameter
- Clamping jaws and stripping blades automatically open once the stripping process is completed – no splaying of the conductor strands
- Exact strip length may be set by sliding black setting stop
- Stripping blades can be replaced
- Self-sharpening, fully protected cutter (replaceable)
- Entire body made of glass-fiber-reinforced polyamide
- Cutting capacity of the wire cutter of fine-stranded conductors up to 16 mm² (6 AWG)

Crimping Tool

Crimping Tool "Variocrimp 4"; for insulated and uninsulated ferrules; Crimping range: 0.25 … 4 mm² (24 … 12 AWG)		
	Item No.	Pack. Unit
	206-1204	1

Spring clamp; large		
	206-1205	1

Spring clamp; small		
	206-1206	1

Crimping Tool "Variocrimp 16"; for insulated and uninsulated ferrules; Crimping range: 6 mm² (10 AWG), 10 mm² (8 AWG) and 16 mm² (6 AWG)		
	Item No.	Pack. Unit
	206-1216	1

Spring clamp; small		
	206-1206	1

Application notes:

- The built-in crimping pressure control of "Variocrimp 4" automatically adjusts the crimping force to the conductor cross section. Select the wire gauge on "Variocrimp 16" before crimping.
- Only one crimping station is needed to handle the specified conductor range.
- Uniform, compact crimping on all four sides for high conductor retention.
- No need to center the ferrules into the terminal blocks.
- Crimping can be performed from either side (for left- or right-handed users).
- Built-in ratchet mechanism ensures gas-tight crimp connection.
- Crimping tools open automatically after crimping operation is complete.
- Ergonomically designed handles.

Insert the ferruled conductor into the crimping station.

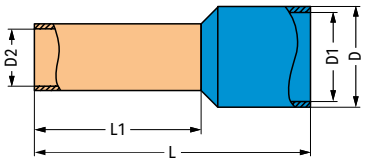
Squeeze handles until ratchet mechanism is released.

A perfect gas-tight crimp – both electrically and mechanically reliable

Only for "Variocrimp 16":
Adjust conductor cross section with crimping tool in open position.

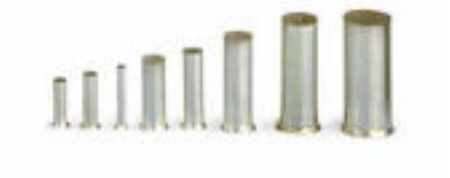
15

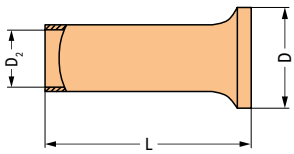
Insulated and Uninsulated Ferrules



Ferrule; insulated; electro-tin-plated; electrolytic copper; gastight crimped; per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Color	Strip Length	L	L 1	D	D 1	D 2	Item No.	Pack. Unit
0.25 mm² / 24 AWG	yellow	7 mm / 0.28 inch	10	6	2;3	1;8	0;5	216-321	1000
0.25 mm² / 24 AWG	yellow	9 mm / 0.35 inch	12	8	2;3	1;8	0;5	216-301	1000
0.34 mm² / 22 AWG	green	7 mm / 0.28 inch	10	6	2;5	2	0;5	216-322	1000
0.34 mm² / 22 AWG	green	9 mm / 0.35 inch	12	8	2;5	2	0;5	216-302	1000
0.5 mm² / 20 AWG	white	7 mm / 0.28 inch	12	6	3;1	2;6	1	216-221	1000
0.5 mm² / 20 AWG	white	9 mm / 0.35 inch	14	8	3;1	2;6	1	216-201	1000
0.75 mm² / 18 AWG	gray	8 mm / 0.31 inch	12	6	3;3	2;8	1;2	216-222	1000
0.75 mm² / 18 AWG	gray	10 mm / 0.39 inch	14	8	3;3	2;8	1;2	216-202	1000
1 mm² / 18 AWG	red	8 mm / 0.31 inch	12	6	3;5	3	1;4	216-223	1000
1 mm² / 18 AWG	red	10 mm / 0.39 inch	14	8	3;5	3	1;4	216-203	1000
1.5 mm² / 16 AWG	black	8 mm / 0.31 inch	12	6	4	3;5	1;7	216-224	1000
1.5 mm² / 16 AWG	black	10 mm / 0.39 inch	14	8	4	3;5	1;7	216-204	1000
2.08 mm² / 14 AWG	yellow	10 mm / 0.39 inch	15	8	4;8	4;2	2;05	216-205	1000
2.5 mm² / 14 AWG	blue	10 mm / 0.39 inch	15	8	4;7	4;2	2;2	216-206	1000
4 mm² / 12 AWG	gray	12 mm / 0.47 inch	18	10	5;4	4;8	2;8	216-207	500
6 mm² / 10 AWG	yellow	14 mm / 0.55 inch	20	12	6;9	6;3	3;5	216-208	100
10 mm² / 8 AWG	red	16 mm / 0.63 inch	22	12	8;4	7;6	4;6	216-209	100
16 mm² / 6 AWG	blue	23 mm / 0.91 inch	28	18	9;6	8;8	5;8	216-210	100





Ferrule; uninsulated; electro-tin-plated; electrolytic copper; gastight crimped; per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Strip Length	L	D	D 2	Item No.	Pack. Unit
0.25 mm² / 24 AWG	5 mm / 0.2 inch	5	1;7	0;75	216-151	1000
0.25 mm² / 24 AWG	7 mm / 0.28 inch	7	1;7	0;75	216-131	1000
0.34 mm² / 22 AWG	5 mm / 0.2 inch	5	1;8	0;85	216-152	1000
0.34 mm² / 22 AWG	7 mm / 0.28 inch	7	1;8	0;85	216-132	1000
0.5 mm² / 20 AWG	6 mm / 0.24 inch	6	2;1	1	216-121	1000
0.5 mm² / 20 AWG	8 mm / 0.31 inch	8	2;1	1	216-101	1000
0.75 mm² / 18 AWG	6 mm / 0.24 inch	6	2;3	1;2	216-122	1000
0.75 mm² / 18 AWG	8 mm / 0.31 inch	8	2;3	1;2	216-102	1000
1 mm² / 18 AWG	6 mm / 0.24 inch	6	2;5	1;4	216-123	1000
1 mm² / 18 AWG	8 mm / 0.31 inch	8	2;5	1;4	216-103	1000
1.5 mm² / 16 AWG	6 mm / 0.24 inch	6	2;8	1;7	216-124	1000
1.5 mm² / 16 AWG	8 mm / 0.31 inch	8	2;8	1;7	216-104	1000
2.5 mm² / 14 AWG	10 mm / 0.39 inch	10	3;4	2;2	216-106	1000
4 mm² / 12 AWG	10 mm / 0.39 inch	10	4	2;8	216-107	1000
6 mm² / 10 AWG	12 mm / 0.47 inch	12	4;7	3;5	216-108	250
10 mm² / 8 AWG	12 mm / 0.47 inch	12	5;8	4;5	216-109	250
16 mm² / 6 AWG	15 mm / 0.59 inch	15	7;5	5;8	216-110	250

Crimping Tool

Application notes:

- Improved crimping for higher conductor retention
- Crimping can be performed from either side (for left- or right-handed users).
- Built-in ratchet mechanism ensures gas-tight crimp connection.
- Crimping tools open automatically after crimping operation is complete.
- Ergonomically designed handles.

Crimping Tool 25; for insulated and uninsulated ferrules; crimping range: 10 mm² (8 AWG), 16 mm² (6 AWG) and 25 mm² (4 AWG)		
	Item No.	Pack. Unit
	206-1225	1

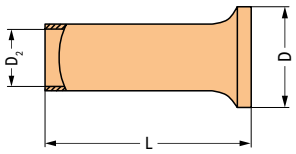
Crimping Tool 50; for insulated and uninsulated ferrules; crimping range: 35 mm² (2 AWG) and 50 mm² (1/0 AWG)		
	Item No.	Pack. Unit
	206-1250	1

Insert the ferruled conductor into the crimping station.

Squeeze handles until ratchet mechanism is released.

What is a "gas-tight" connection?
In a gas-tight connection, the conductor and the ferrule are compressed, eliminating all spaces. Under normal atmospheric conditions, neither a liquid nor gaseous medium can penetrate the crimped connection.
Oxidation between crimped single conductors is prevented, virtually eliminating the possibility of any increase in the crimped connection's resistance. In some exceptional cases, minute, isolated spaces may be present. However, these instances can be considered as closed off due to the twisted conductor.
Inadequate crimping can allow the conductor to be pulled out of the connection. Hollow spaces also remain, permitting oxidation formation and leading to an increase in contact resistance.
Elevated resistance is detrimental for both signal transmission (signal flow is damped) and power transmission, resulting in power loss and contact heating (risk of fire).
Crimping tools with built-in ratchets are recommended (e.g., WAGO Crimping Tools). These tools open automatically after the crimping operation is complete. Space-saving crimping from all four sides is ideal for spring clamp termination.
Ferruled conductor cross sections specified for WAGO products are based on this crimping method.

Uninsulated Ferrule



Ferrule; uninsulated; electro-tin-plated; electrolytic copper; gastight crimped; per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Strip Length	L	D	D 2	Item No.	Pack. Unit
25 mm² / 4 AWG	25 mm / 0.98 inch	25	9;5	7;3	**216-413**	50
35 mm² / 2 AWG	25 mm / 0.98 inch	25	11	8;3	**216-414**	50
35 mm² / 2 AWG	30 mm / 1.18 inch	30	11	8;3	**216-424**	50
50 mm² / 1 AWG	30 mm / 1.18 inch	30	13	10;3	**216-425**	50
50 mm² / 1 AWG	35 mm / 1.38 inch	35	13	10;3	**216-435**	50

Cable Cutter

Cable cutter; for copper and aluminum cables up to 35 mm² (2 AWG)		
	Item No.	Pack. Unit
	206-118	1

Cutting a cable.

“Alu-Plus” Contact Paste
Terminating Aluminum Conductors

Syringe; contains 20 ml “Alu-Plus” Contact Paste		
	Item No.	Pack. Unit
	249-130	20 (5)

Terminating Aluminum Conductors
WAGO spring clamp terminal blocks are suitable for solid aluminum conductors ❶ up to 4 mm²/12 AWG if WAGO “Alu-Plus” Contact Paste is used for termination.

Advantages of the “Alu-Plus” Contact Paste:
- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

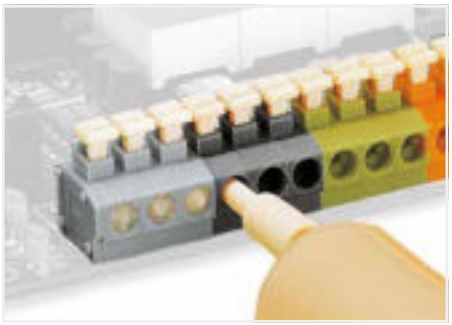
Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately be inserted into the clamping units filled with “Alu-Plus” Contact Paste.

It is also possible to apply WAGO “Alu-Plus” **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:

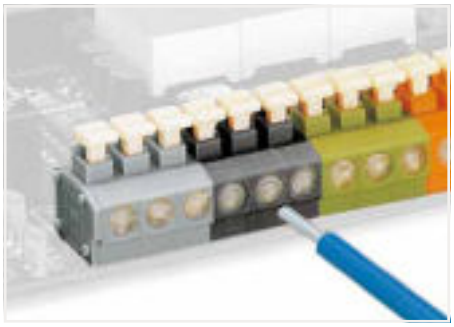
2.5 mm² (14 AWG) = 16 A
4 mm² (12 AWG) = 22 A

WAGO “Alu-Plus” in the syringe offers a higher degree of reliability and cleanliness when terminating solid aluminum conductors.
Filling is, for example, quickly performed on WAGO PCB Terminal Trips:



WAGO Lighting Connectors
Push nozzle of the “Alu-Plus” syringe first into the circular entry and then into the square conductor entry hole of the WAGO Lighting Connector.

❶ Aluminum conductors per IEC 61545 standard, Class B, “Alloy 1370” with 90 … 180 N/mm² tensile strength and 1 … 4% elongation
Standard values: 90 … 180 MPa tensile strength, 1 … 4% elongation (per EN 615.4.1)



Press plunger down **until the “Alu-Plus” has filled both entry holes.**

Note: Not suitable for higher temperature applications!

Test and Measurement Devices
206 Series

Multi-Tester; digital multimeter with non-contact voltage tester		
	Item No.	Pack. Unit
	206-810	1

Testboy; with integrated flashlight, non-contact voltage tester		
	Item No.	Pack. Unit
	206-804	1

Multi-Tester features:

- Contact-less voltage test AC >100 V (optical and acoustical)
- Resistance measurement up to 20 MΩ
- Acoustical continuity test
- Diode test
- Data hold function
- Auto power-off function
- LED torch lamp function
- CAT IV 600 V
- TÜV/GS tested and approved
- IEC/EN 61010-1 (DIN VDE 0411)

A device that will reliably detect AC voltage in cables, sockets, fuses, switches, outlets and other installations. Testboy can detect the following:

- Live conductors
- Cable breaks
- Blown fuses (in cartridges or holders)
- Defective switches
- Defective lamps in strings of lights

Test and Measurement Devices
206 Series

Profi-LCD+; 2-pole voltage tester with LCD display; removable 4 mm Ø test probes

	Item No.	Pack. Unit
	206-707	1

Profi-LED+; 2-pole voltage tester with LED display; removable 4 mm Ø test probes

	Item No.	Pack. Unit
	206-706	1

Spare test probes; 4 mm Ø (2 pieces)

	Item No.	Pack. Unit
	206-808	25

Additional Profi-LCD+ features:

- Automatic measurement range selection
- Single-pole phase testing AC >100 V
- Two-pole sequence testing (R and L)
- Continuity testing
- RDC/RCD testing (30 mA) via buttons
- One-hand operation for SCHUKO® and CEE sockets
- LED torch lamp function
- Automatic backlight
- Auto power-off function
- CAT IV 1000 V
- TÜV/GS tested and approved
- IEC/EN 61243-3 (DIN VDE 0682-401)

Additional Profi-LED+ features:

- Automatic measurement range selection
- Single-pole phase testing AC >100 V
- Two-pole sequence testing (R and L)
- Continuity testing
- RDC/RCD testing (30 mA) via buttons
- One-hand operation for SCHUKO® and CEE sockets
- LED torch lamp function
- CAT IV 1000 V
- TÜV/GS tested and approved
- IEC/EN 61243-3 (DIN VDE 0682-401)

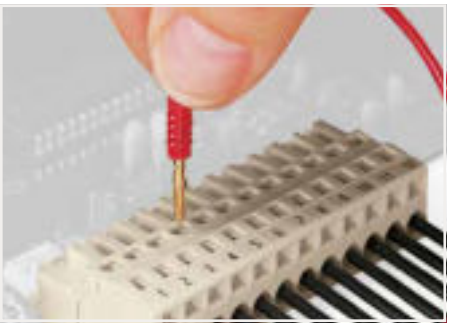
Profi-LED+:

- Improved socket contact via 4 mm Ø test probes
- Removable test probes for small test ports (suitable for all WAGO Terminal Blocks)

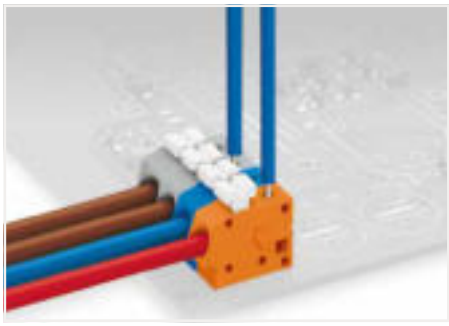
Test Plug and Test Pin

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V		
Color	Item No.	Pack. Unit
red	210-136	50

Test pin; with solder connection for test cable; 1 mm Ø		
	Item No.	Pack. Unit
	735-500	1



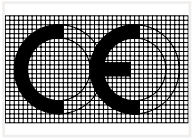
Testing via 2 mm Ø test plug.



Testing via a 1 mm Ø test pin – touch contact.

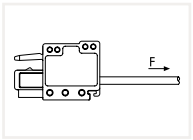
Technical Section

Technical Section



	Page
CE Marking and EC Directives	890
	892
IEC/EN Specifications	

Tests and Testing Procedures per IEC/EN Standards	
– Mechanical Tests	894
– Electrical Tests	896
– Material Tests	911
– Environmental Tests	912



UL Specifications – Underwriters Laboratories, USA	914
– Tests and Testing Procedures per UL Standards	915

Terminating Aluminum Conductors	919

Processing Information and Material Specifications	
– Soldering Information	920
– Insulation Materials	920
– Contact Materials, Contact Plating, Clamping Spring Material	922

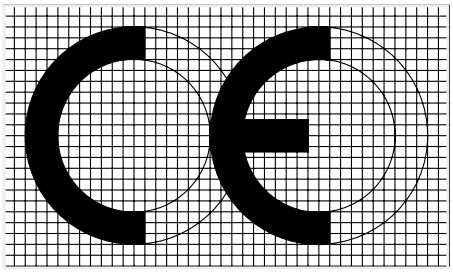
General Technical Information on Electrical Equipment Used in Hazardous Areas	923
– Special Requirements “Increased Safety Ex e”	925
– Special Requirements “Intrinsic safety Ex i”	928
International Certification Organizations – Overview	932

Electrical Engineering Laboratory	934
Product Safety for Our Customers	
Accredited Test Laboratory	935

WAGO Seminars	936
Learn Today – Benefit Tomorrow	
Benefit from First-Hand Knowledge and Expertise – Training Straight from the Source!	

CE Marking and EC Directives

CE Conformity Marking
The CE conformity marking consists of the characters "CE" with the following script:



Communauté Européenne
(European Community)

WAGO Kontakttechnik GmbH & Co. KG products are developed, tested and marked in accordance with legally valid international standards and laws.

The CE mark is applied to products intended for the European domestic market; with it, manufacturers declare that the marked electrical equipment conforms with the applicable requirements set out in the Community harmonization legislation (EU Directives), which allows such equipment to carry this mark.

The original intention of this mark was to support the authorities in the EU member states in their market supervision, with the mark acting as a symbol of free movement of products within the EU. According to EC Directive 765/2008, a product can only be given the CE mark if the product requirements are defined in at least one appropriate EU directive. Examples of such directives are the Low Voltage Directive, the EMC Directive, the ATEX Directive, the Building Products Directive and the Machinery Directive. If more than one directive applies to a product, the product must comply with **all applicable directives**.

Only the basic requirements for achieving the defined aim of the directive are laid out in each respective directive. The individual technical details are specified according to the New Approach using lists with cross references to applicable standards (so-called harmonized standards).

1. Low Voltage Directive (LVD)

The safety of electrical equipment is guaranteed by the Low Voltage Directive (LVD). The LVD covers all electrical equipment operating with a voltage between 50 VAC and 1000 VAC and between 75 VDC and 1500 VDC.

Products falling within the scope of the Low Voltage Directive that are designed in such a way that they can be used in other electrical devices, and whose safety, for the most part, is dependant on how these components were built into the end product and what features the end product has, are defined as basic components in accordance with the Low Voltage Directive.

The LVD doesn't apply to basic components.

The RoHS Directive also applies to electrical equipment covered by the Low Voltage Directive. This directive regulates the use of hazardous substances in electrical devices and components, with the aim of reducing the quantity of problematic components in electrical waste. Details about the materials used by WAGO are available in our catalogs, on our product packaging and on our Web page.

2. EMC Directive

The EMC Directive stipulates that a product must meet the limits on radiated electromagnetic disturbance and also requires that a product must be immune to electromagnetic interference.

Electromagnetic passive components or components with no direct function, such as terminal blocks, resistors, diodes, capacitors, switching relays or cables (in the form of passive printed circuit boards) are not considered as apparatus within the meaning of the EMC Directive.

3. ATEX Directive on Explosion Protection

The ATEX Directive defines the rules for products (devices and protective systems) intended for use in hazardous locations. A number of products from WAGO are designed for use in hazardous areas.

Based on potential hazards, the ATEX Directive makes a distinction between three different equipment groups, of which Group II and III are subdivided into further zones. Suitability of WAGO products for the different groups and zones is outlined in the specific product documents (catalogs, Internet site, data sheets and product inserts).

These may be either devices that can be used as equipment in these types of areas, or components that are required for safe operation, but which do not fulfill a dedicated function. Such components include rail-mount terminal blocks for use in hazardous areas.

Products in both groups must comply with the ATEX Directive.

4. Radio Communications Directive

The Radio Communications Directive applies to all devices that properly transmit or receive radio waves for wireless communications and/or radio orientation. The basic safety requirements apply to the protection of health for humans and animals and to electrical safety in line with the Low Voltage Directive, but without the application of the voltage limit. In addition, the EMC protection goals of the EMC Directive must also be fulfilled and efficient use of radio frequencies ensured. WAGO products covered by the Radio Communications Directive indicate, in compliance with applicable laws, only the Radio Communication Directive in their EU Declaration of Conformity, as fulfillment of the Low Voltage Directive and of the EMC Directive is implicit in this declaration.

5. Construction Products Regulation

The Construction Products Regulation demands that structures be designed and constructed such that the safety of humans, property and animals is not endangered and that all applicable environmental protection requirements be considered. Here, building products are defined as products or construction sets which are produced to be built permanently into structures and which make a significant contribution to fulfilling the basic requirements for the structure.

In the unanimous opinion expressed by the German electrical industry, including WAGO Kontakttechnik GmbH & Co. KG, products used in general installation technology are not included among these types of building products and are therefore not covered by this directive.

6. Machinery Directive

The Machinery Directive applies to machines (complete or incomplete) which perform their functions by means other than direct human or animal work, or safety components for these types of machines.

Therefore, this directive usually does not apply to WAGO products.

The manufacturers of machines or systems are required by this directive to use safe products and components in their machines and systems. Directive-compliant production and safe operation is facilitated by the use of WAGO products, with their standard-compliant, up-to-date design.

Significance of CE Mark for WAGO Products

One, several or none of the EU Directives may apply to the various WAGO products. If none of the directives apply, the CE marking will not be affixed to the product, in line with applicable laws. Furthermore, a declaration of conformity must not be issued. All other products are provided with the CE mark – either directly on the product, on its packaging or in the documents included with the product – and a declaration of conformity is issued, or made accessible to the customer.

The data sheets of the technically sound products that, according to the regulations, are not CE marked will refer to the standards used in the development and type and manufacturing testing wherever possible.

IEC/EN Specifications

The following standards apply to the design and application of the terminal blocks and connectors contained in this catalog:

IEC 60364-1
HD 60364-1
VDE 0100-100
/ Erection of power installations with nominal voltages up to 1000 V
– Part 1: Fundamental principles, assessment of general characteristics, definitions

IEC 61140
EN 61140
VDE 0140-1
/ Protection against electric shock
– Common aspects for installation and equipment

IEC 60364-7-710
HD 60364-7-710
VDE 0100-710
– Part 7-710: Requirements for special installations or locations
– Medically used areas

IEC 60364-7-718
HD 60364-7-718
VDE 0100-718
– Part 7-718: Requirements for special installations or locations
– Communal facilities and workplaces

EN 50110-1
VDE 0105-1
/ Operation of electrical installations
– Part 1: General requirements

IEC 60664-1
EN 60664-1
VDE 0110-1
/ Insulation coordination for equipment within low-voltage systems
– Part 1: Principles, requirements and tests

IEC 60204-1
EN 60204-1
VDE 0113-1
/ Safety of machinery – Electrical equipment of machines
– Part 1: General requirements

IEC 60079-0
EN 60079-0
VDE 0170-1
/ Harzardous areas
Part 0: Equipment
– General requirements

IEC 60079-7
EN 60079-7
VDE 0170-6
/ Explosive atmospheres
– Part 7: Equipment protection by increased safety “e”

IEC 60079-11
EN 60079-11
VDE 0170-7
/ Harzardous areas
– Part 11: Equipment protection by intrinsic safety “i”

IEC 60079-14
EN 60079-14
VDE 0165-1
/ Harzardous areas
– Part 14: Electrical installations design, selection and erection

IEC 60079-15
EN 60079-15
VDE 0170-16
/ Explosive atmospheres
– Part 15: Equipment protection by type of protection “n”

IEC 60038
EN 60038
VDE 0175-1
/ IEC CENELEC standard voltages

VDE 0298-4
/ Use of cables and insulated conductors in power installations
– Part 4: Recommended values for current carrying capacities of cables for fixed installation and for flexible cables

IEC 60112
EN 60112
VDE 0303-11
/ Method for determining the comparative and the proof tracking indices of solid insulation materials

IEC 60529
EN 60529
VDE 0470-1
/ Degrees of protection provided by enclosures (IP Code)
– Testing equipment and testing method

IEC 61439-1
EN 61439-1
VDE 0660-600-1
/ Low-voltage switchgear and control-gear assemblies
– Part 1: General rules

IEC 61439-3
EN 61439-3
VDE 0660-600-3
/– Low-voltage switchgear assemblies
– Part 3: Distribution boards intended to be operated by ordinary persons (DBO)

IEC 61643-11
EN 61643-11
VDE 0675-6-11
/ Low-voltage surge protective devices
– Part 11: Surge protective devices connected to low-voltage power systems
– Requirements and test methods

IEC 60335-1
EN 60335-1
VDE 0700-1
/ Safety of household and similar electrical appliances
– Part 1: General requirements

IEC 60598-1
EN 60598-1
VDE 0711-1
/ Lighting fixtures
– Part 1: General requirements and tests

IEC 60715
EN 60715
/– Standardized mounting on rails for mechanical support of electrical devices in switchgear and control-gear installations

IEC 60999-1
EN 60999-1
VDE 0609-1
/ Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units
– Part 1: General requirements and particular requirements for clamping units for conductors from 0.2 mm² up to 35 mm²

IEC 60999-2
EN 60999-2
VDE 0609-101
– Part 2: General requirements and particular requirements for clamping units for conductors from 35 mm² up to 300 mm²

IEC 60998-1
EN 60998-1
VDE 0613-1
/ Connecting devices for low-voltage circuits for household and similar purposes
– Part 1: General requirements

IEC 60998-2-1
EN 60998-2-1
VDE 0613-2-1
– Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units

IEC 60998-2-2
EN 60998-2-2
VDE 0613-2-2
– Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units

IEC 60998-2-3
EN 60998-2-3
VDE 0613-2-3
– Part 2-3: Particular requirements for connecting devices as separate entities with insulation-piercing clamping units

IEC 60947-1
EN 60947-1
VDE 0660-100
/ Low-voltage switchgear and controlgear
– Part 1: General rules

IEC 60947-7-1
EN 60947-7-1
VDE 0611-1
– Part 7-1: Ancillary equipment
Terminal blocks for copper conductors

IEC 60947-7-2
EN 60947-7-2
VDE 0611-3
– Part 7-2: Ancillary equipment
Ground conductor terminal blocks for copper conductors

IEC 60947-7-3
EN 60947-7-3
VDE 0611-6
– Part 7-3: Ancillary equipment
Safety requirements for fuse terminal blocks

IEC 60947-7-4
EN 60947-7-4
VDE 0611-4
– Part 7-4: Ancillary equipment –
PCB terminal blocks for copper conductors

IEC 61984
EN 61984
VDE 0627
/ Connectors
– Safety requirements and tests

IEC 60512-1
EN 60512-1
/ Connectors for electronic equipment
Equipment
– Measurement and test procedures
– Part 1: General

IEC 60320-1
EN 60320-1
VDE 0625-1
/ Appliance couplers for household and similar general purposes
– Part 1: General requirements

IEC 60352-1
EN 60352-1
/ Solderless connections;
– Part 1: Wrapped connections
– General requirements
Test methods and practical guidance

IEC 60352-2
EN 60352-2
/ Solderless connections;
– Part 2: Crimped connections
– General requirements
Test methods and practical guidance

IEC 60352-3
EN 60352-3
– Part 3: Solderless accessible insulation displacement connections
– General requirements
Test methods and practical guidance

IEC 60352-4
EN 60352-4
– Part 4: Solderless non-accessible insulation displacement connections
– General requirements
Test methods and practical guidance

IEC 60352-5
EN 60352-5
– Part 5: Press-in connections
– General requirements
Test methods and practical guidance

IEC 60352-6
EN 60352-6
– Part 6: Insulation piercing connections
– General requirements
Test methods and practical guidance

IEC 60352-7
EN 60352-7
– Part 7: Spring clamp connections
– General requirements
Test methods and practical guidance

Tests and Testing Procedures per IEC/EN Standards

Products such as connecting devices, rail-mount terminal blocks and connectors, etc., have their own product-specific test specifications. The following sections describe the most important tests and are limited to a description of the test procedures and an explanation of the test purpose. The data shown (e.g., voltages, temperatures, forces) only serve as illustration and may differ depending on the test.

Mechanical Tests

All WAGO products meet requirements for the following mechanical tests:

- Termination Requirements

Conductor Termination
Two WAGO connection systems are proven in the field of Spring Pressure Connection Technology:
The **PUSH WIRE® connection** for applications requiring solid conductors (e.g., for lighting and building wiring, telecommunications, house communication or alarm systems).
Conductor range:
0.2 … 4 mm² / 24 … 12 AWG
The **universal CAGE CLAMP® spring pressure connection system** for solid, stranded and fine-stranded conductors, designed for a variety of industrial, electrical and electronic applications (e.g., fine-stranded conductors in the elevator industry, in power stations, in the chemical and automotive industry, and aboard ships).
Conductor range:
0.08 … 35 mm² (28 … 2 AWG)

The **Push-in CAGE CLAMP® connection** takes universal CAGE CLAMP® connections further by allowing the termination of 0.2 … 16 mm² (24 … 6 AWG) solid, stranded and fine-stranded conductors (25 mm²/4 AWG only "f-st") and offering all the benefits and safety of the original CAGE CLAMP®. Furthermore, the Push-in CAGE CLAMP® connection technology allows solid, stranded and fine-stranded conductors with ferrules from 0.5 to 16 mm² (20 … 6 AWG) to be terminated by simply pushing them in.

The conductor entry hole is perfectly suited for the insulation diameter of the rated conductor cross section, thus providing good conductor guidance.

This is particularly important for vibration-prone applications.
Fine-stranded conductors of small or very small size are highly flexible, and deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all.
In order to prevent conductor insulation from being inserted into the clamp, insulation stops are available for WAGO rail-mount terminal blocks up to 4 mm² (12 AWG), even providing protection for 0.08 mm² (28 AWG) conductors (see Section 5).

Rated Cross Sections and Connectable Conductors
I. Per IEC 60999-1 / EN 60999-1 / VDE 0609-1, Table 1:

Rated Cross Section	Theoretical Largest Conductor Diameter							Connectable Conductor	
	Metric			AWG					
	Rigid		Flexible	Rigid			Flexible	Rigid	Flexible
	Solid	Stranded			[b] Solid	[b] Class B Stranded	[c] Class I, K, M Stranded	To be defined in the corresponding product standard	
mm²	mm	mm	mm	Conductor Size	mm	mm	mm		
0.2	0.51	0.53	0.61	24	0.54	0.61	0.64		
0.34	0.63	0.66	0.8	22	0.68	0.71	0.8		
0.5	0.9	1.1	1.1	20	0.85	0.97	1.02		
0.75	1	1.2	1.3	18	1.07	1.23	1.28		
1	1.2	1.4	1.5	–	–	–	–		
1.5	1.5	1.7	1.8	16	1.35	1.55	1.6		
2.5	1.9	2.2	2.3[a]	14	1.71	1.95	2.08		
4	2.4	2.7	2.9[a]	12	2.15	2.45	2.7		
6	2.9	3.3	3.9[a]	10	2.72	3.09	3.36		
10	3.7	4.2	5.1	8	3.34	3.89	4.32		
16	4.6	5.3	6.3	6	4.32	4.91	5.73		
25	–	6.6	7.8	4	5.45	6.18	7.26		
35	–	7.9	9.2	2	6.87	7.78	9.02		

NOTE: The diameters of the largest rigid and flexible conductors are based on Table 1 of IEC 60228 A/IEC 60344 and on ASTM B172-71 [4], IECA Publication S-19-81 [5], IECA Publication S-66-524 [6], as well as IECA Publication S-66-516 [7] for AWG conductors.
[a] Dimensions for Class 5 flexible conductors only (IEC 60228 A)
[b] Nominal diameter +5%
[c] Largest diameter for conductors of classes I, K, M + 5%
In practical use, the conductor cross sections are approximately 5% below the values stated in the table!

The IEC 60999-1/EN 60999-1/VDE 0609-1 Specification (Section 7.1) requires that:

Clamping units must be able to connect unprepared conductors.

Under normal operating conditions, direct clamping (i.e., directly connecting a conductor to the terminal block's current bar) provides optimal contact quality, because all risk factors arising from anti-splaying methods are prevented.

Occasionally, conductor anti-splaying protection may be required, including various methods (see illustrations below).

Special requirements apply only in special application areas exposed to extremely corrosive atmospheres.

In this case, we recommend using either solid copper conductors or fine-stranded copper conductors with properly crimped, tin-coated copper ferrules or copper pin terminals.

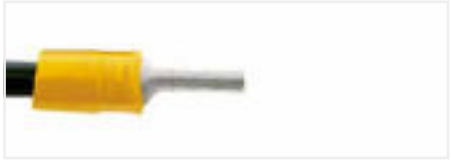
II. Per IEC 60999-2, Table 1:

Rated Cross-Section	Theoretical Largest Conductor Diameter					Connectable Conductor	
	Metric		AWG/kcmil				
	Rigid Stranded	Fine-Stranded [a)]	Gauge	Rigid Stranded	Fine-Stranded		
mm²	mm	mm		mm	mm	Rigid	Flexible
50	9.1	11	1/0	9.64	12.08	To be defined in the corresponding product standard	
70	11	13.1	2/0	11.17	13.54		
95	12.9	15.1	3/0	12.54	15.33		
–	–	–	4/0	14.08	17.22		
120	14.5	17	250	15.34	19.01		
150	16.2	19	300	16.8	20.48		
185	18	21	350	18.16	22.05		
–	–	–	400	19.42	24.05		
240	20.6	24	500	21.68	26.57		
300	23.1	27	600	23.82	30.03		
Dimensions for Class 5 flexible conductors only (IEC 60228 A)							
NOTE: The diameters of the largest rigid and flexible conductors are based on Table 1 and Table 3 of IEC 3 A/IEC 60228 and on ASTM B172-71 [1], IECA Publication S-19-81 [2], IECA Publication S-66-524 [3], as well as IECA Publication S-66-516 [7] for AWG conductors.							

Tip-bonded conductor

Tin-plated copper ferrule (gas-tight crimped)

Ultrasonically bonded conductor



Crimped pin terminal (gas-tight), preferably made of copper with a tin-plated surface

Anti-splaying methods require a terminal block one size larger than the nominal cross section of the conductor to be terminated. Ferruled conductor cross sections specified for individual products are based on WAGO's Variocrimp square crimping technology. Gas-tight, crimped twin ferrules may be used, provided the ferrule is inserted all the way into the clamping unit and that there is a sufficient clearance and creepage distance between adjacent potentials.

As with solid copper conductors, the fine strands are crimped to a dense inner core. This prevents ingress of aggressive atmospheres (depending on the ppm concentration), which can diffuse into the conductor bundle along the individual strands and deposit between individual strands and the clamping point.

One Conductor per Clamping Unit

A number of DIN VDE, EN, IEC directives mandate or recommend that only one conductor must be connected per clamping unit.

In accordance with DIN VDE 0611, Part 4, 02.91, Section 3.1.9, multi-level distribution rail-mount terminal blocks must be dimensioned so that a single (solid, stranded or fine-stranded) conductor of the nominal cross section can be connected at each terminal point.

Other VDE, EN and IEC specifications also recommend the connection of only one conductor per clamping unit, unless the clamping unit is specifically tested and approved for the connection of several conductors, for example:
VDE 0609, Part 1, 12.00 / EN 60999-1:2000/ IEC 60999-1:1999, Section 7.1
VDE 0660, Part 600, 06.12 / EN 61439-1:2011 / IEC 61439-1, Section 8.6.3
VDE 0113, Part 1, 06.07 / EN 60204-1:2006 / IEC 60204-1:2016, Section 13.1.1.
One conductor per clamping unit is therefore recommended to meet the safety requirements of these relevant specifications. This WAGO principle is the basis for a number of other technical and economic advantages:

- Each conductor may be terminated or removed without affecting previously connected conductors.
- Where re-wiring is required, only the conductor to be changed is removed from the clamping point, all other conductors remain safely clamped.
- Each conductor is clamped independently.
- Any conductor size combination can be connected.

WAGO provides 2-conductor terminal blocks and connectors to increase the number of clamping units.

Tests and Testing Procedures per IEC/EN Standards (continued)
Mechanical Tests (continued)

- Pull-Out Test per IEC/EN 60947-7-1, IEC/EN 60998-2-2, IEC/EN 60999-1

The pull-out test simulates the mechanical stress on the clamping unit when, for example, the installer pushes the conductor aside to better access/operate the adjacent clamping unit, or verifies if the conductor is connected properly by briefly pulling on it.
During the test, a pulling force is applied without jerking, for one minute, to the connected conductor. The pulling force is selected according to the cross-sectional area. The larger the cross section of the conductor, the higher the pull-out force that is selected. For example, the pulling force is 40 N for a conductor having a cross section of 1.5 mm² (16 AWG) and 100 N for a conductor with a cross section of 16 mm² (6 AWG). The values specified by these standards are the same for both screw clamp and spring clamp terminal blocks. During the test, the conductor must neither slip out of the clamping unit, nor break near the clamping unit.

Conductor Pull-Out Forces
The clamping units of screwless terminal blocks must withstand the pull-out forces as follows:
IEC 60947-1/EN 60947-1/VDE 0660-100, Table 5:
Low-voltage switchgear and controlgear, general rules

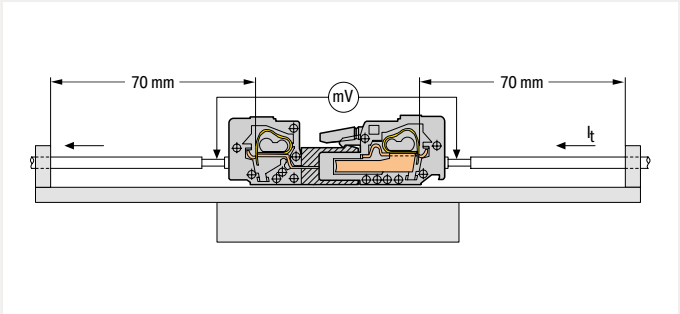
IEC 60947-7-1/EN 60947-7-1/
VDE 0611-1, rail-mount terminal blocks for copper conductors

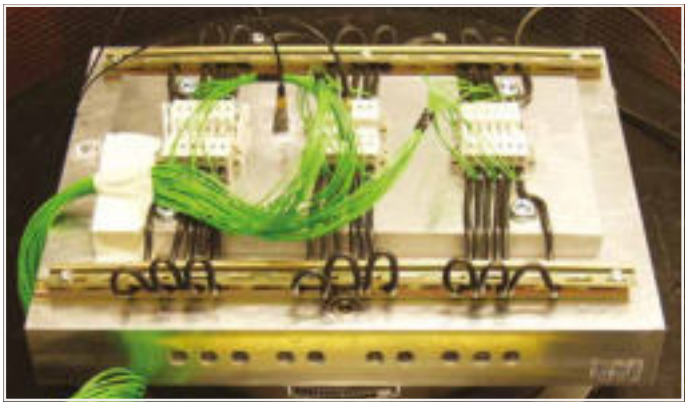
IEC 60998-2-1/EN 60998-2-1/
VDE 0613-2-1, Table 104:
IEC 60998-2-2/ EN 60998-2-2
VDE 0613-2-2, Table 103:
Connecting devices for low-voltage circuits for household and similar purposes
Particular requirements for connecting devices as separate entities with screw-clamp or screwless terminal blocks.
IEC 60999-1/EN 60999-1/VDE 0609-1, Table 3:
IEC 60999-2/EN 60999-2/VDE 0609-101, Table 2:
Safety requirements for screw-clamp and screwless clamping units for electrical copper conductors

Rated Cross-Section		Pull-Out Forces per IEC/EN		
		60947-7-1	60998-2-2	60999-1/-2
mm²	AWG/kcmil	N	N	N
0.2 0.34	24 22	10 15	10 15	10 15
0.5 0.75	20 18	20 30	20 30	20 30
1 1.5	– 16	35 40	35 40	35 40
2.5 4	14 12	50 60	50 60	50 60
6 10	10 8	80 90	80 90	80 90
16 25	6 4	100 135	100 135	100 135
– 35	3 2	156 190	190	190
– 50	1 1/0	236 236		236
70 95	2/0 3/0	285 351		285 351
– 120	4/0 250	427 427		427 427
150 185	300 350	427 503		427 503
– 240	400 500	503 578		503 578
300	600	578		578

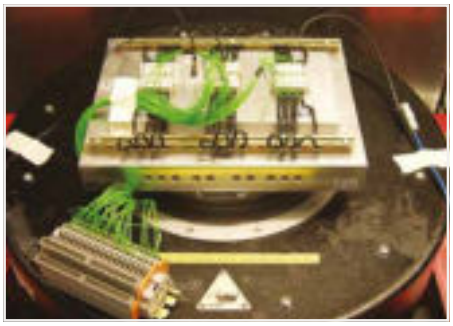
• Shock/Vibration Test per IEC/EN 60068-2-6; DNV GL, LR (Marine Applications); IEC/EN 61373 (Railway Applications)

The vibration test determines whether vibrations, such as those produced in the vicinity of machines or in vehicles, will permanently affect the electrical connection, or if contact breaks will occur during vibrations. Using a vibration table, the test specimen is subjected to vibration in each of the X, Y and Z axes (see pictures). The amplitude, acceleration and in particular the frequency of the vibration must vary during the test.
The “open length” of the conductor up to the point where the conductor is attached in the application must be kept as short as possible (length = 70 mm in this example).

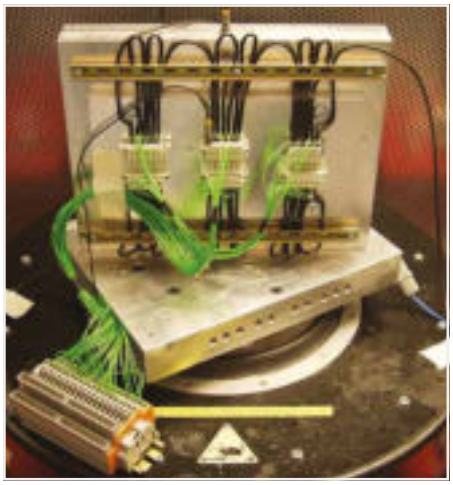




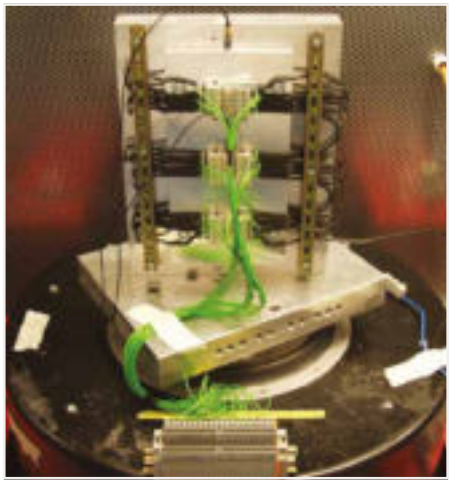
1st Axis



2nd Axis



3rd Axis



The exact test procedure may vary considerably, depending on how the product will be used.

Application Examples per IEC/EN 60068-2-6	Associated Test Levels	
Devices attached to heavy, rotating machines	1 … 35 Hz,	50 m/s² (5 g) or 100 m/s² (10 g)
Devices designed for use in large-scale power plants and general industrial applications	10 … 55 Hz,	20 m/s² (2 g) 50 m/s² (5 g)
Devices designed for use in large-scale power plants and general industrial applications if it has been determined that detectable vibration components greater than 55 Hz exist	10 … 150 Hz,	20 m/s² (2 g) 50 m/s² (5 g)

Tests and Testing Procedures per IEC/EN Standards (continued)
Mechanical Tests (continued)

Beyond these standard procedures, each market segment performs additional testing. Examples include railway authorities testing rolling electrical equipment, or the testing performed multiple marine agencies (e.g., DNV GL Group, Lloyd's Register of Shipping). Though the requirements of such testing procedures are particularly demanding, test arrangements are identical for all of them. During vibrations, possible contact breaks are monitored on an oscilloscope. Voltage drop is measured before and after the test to detect permanent failures, i.e., checking if electrical resistance at the clamping unit has not increased beyond the permissible limit. The smaller this value is, the smaller the contact resistance of the clamping unit.

The test is passed if:
- the conductor has neither slipped out of the terminal block nor been damaged,
- the maximum permissible voltage drop has not been exceeded
- and neither contact breaks have occurred nor a defined break time has been exceeded.

The test specimen must not be damaged in any way that might affect future use.

Since their inception, both CAGE CLAMP® and Push-in CAGE CLAMP® connections have been routinely tested for their resistance to shock/vibration in connection with approval tests.

Notes:

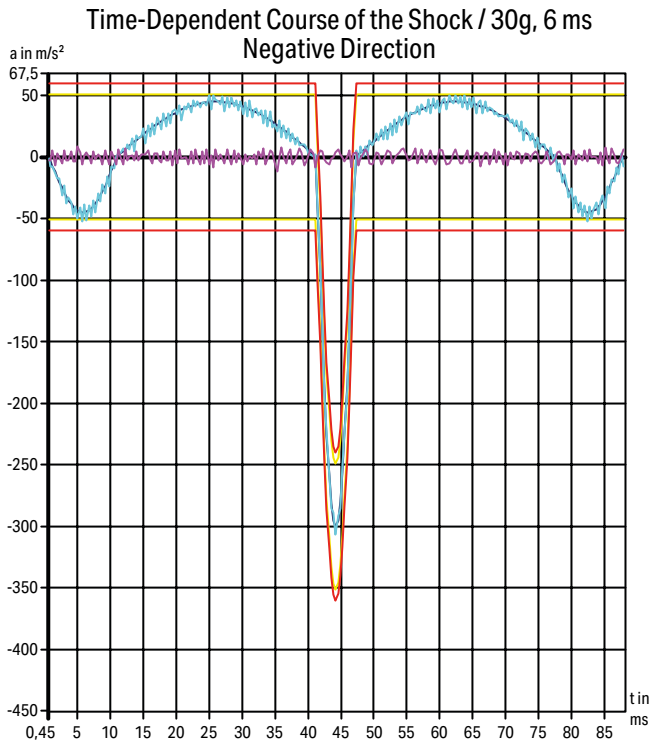
These test results are based solely on tests conducted under "laboratory conditions." Connector usage in actual applications must be evaluated by the user.

- Shock Test per IEC/EN 60068-2-27; IEC/EN 61373 (Railway Applications)

The shock test is similar to the vibration test except that, instead of continuous vibrations, single shocks are applied to the specimen. Shock tests are usually performed with an acceleration of 20g, for example, over a period of 11 ms. Tests for special requirements often call for much higher values.
Like the vibration tests, shock tests are primarily used to test the voltage drop variation or contact breaks, etc.

Example: Shock requirement

per IEC/EN 60068-2-27 (half-sine shock)
30g acceleration, 6 ms duration
Shock direction: 3 axes (3 shocks each in positive and negative direction)



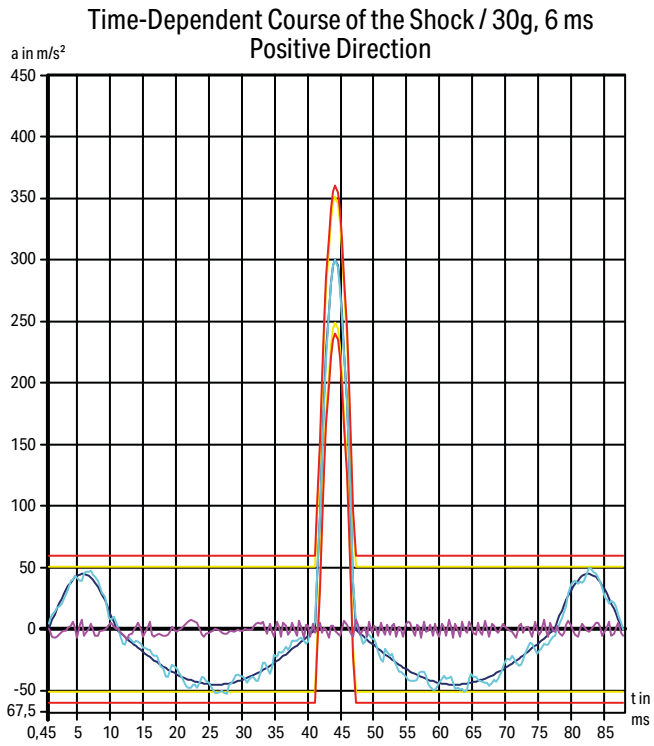
Status: Stop
Cause: Number of shocks ready!

Date: 30.04.2009 Control: active
Time: 07:27:59 Total number of shocks: 3
Modulation: 42 % Shocks processed: 3
Warning limits: inactive Top acceleration: 306.71 m/s²
Turn-off limits: inactive Speed: 1.13 m/s

Legend:

Upper warning limits | Lower warning limits | Upper turn-off limits | Lower turn-off limits
Set acceleration curve | Actual acceleration curve | Measured acceleration curve

RMS - SWR 900 - Testmanager Test file: 68-2-27.SHO (Shock)



Status: Stop
Cause: Number of shocks ready!

Date: 30.04.2009 Control: active
Time: 07:26:38 Total number of shocks: 3
Modulation: 43.1 % Shocks processed: 3
Warning limits: inactive Top acceleration: 305.74 m/s²
Turn-off limits: inactive Speed: 1.13 m/s

Legend:

Upper warning limits | Lower warning limits | Upper turn-off limits | Lower turn-off limits
Set acceleration curve | Actual acceleration curve | Measured acceleration curve

RMS - SWR 900 - Testmanager Test file: 68-2-27.SHO (Shock)

Tests and Testing Procedures per IEC/EN Standards (continued)

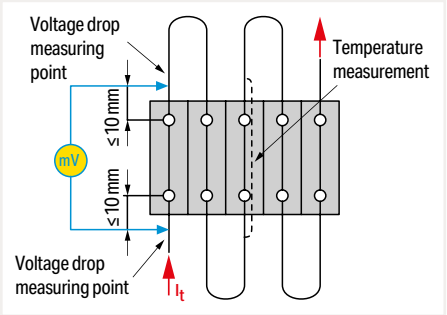
Electrical Tests

All WAGO products meet requirements for the following electrical tests:

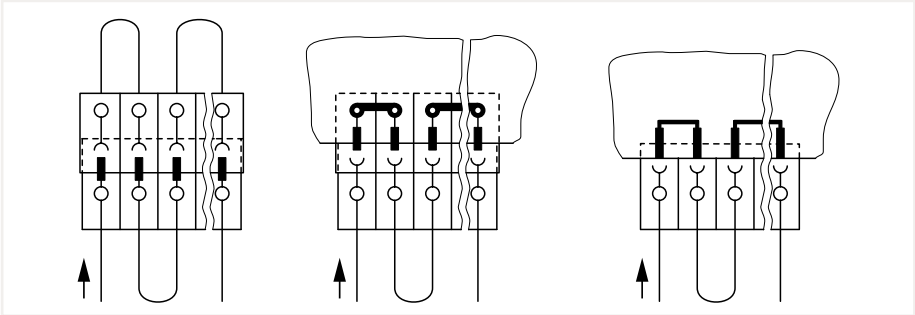
- Temperature-Rise Test per IEC/EN 61984, IEC/EN 60947-7-4, IEC/EN 60947-7-1, IEC/EN 60998-1

The temperature-rise test examines the clamping unit – including the surrounding insulation – at rated current, over-current and short-circuit current levels.
Unless otherwise specified in the related equipment specification, e.g., by specifying the nominal currents of the equipment, terminal blocks and connectors are tested with current loads as specified in the respective construction specification.
For rail-mount terminal blocks complying with IEC 60947-7-1/EN 60947-7-1/VDE 0611-1, or terminal blocks complying with IEC 60998-1/EN 60998-1/ VDE 0613-1, the temperature rise must not exceed 45 Kelvin.

Connectors and PCB terminal blocks must withstand the upper and lower values of the temperature range as specified in the detail or manufacturer's specification.
The sum of the surrounding air temperature and the temperature rise of a connector or PCB terminal strip must not exceed the upper temperature limit.



Test arrangement: "Temperature-Rise Test"



Test arrangement: "Temperature-Rise Test" per IEC/EN 61984

Rated Cross-Section	Test Current per IEC/EN	
	60947-7-1 Table 4	60998-1 Table 2
mm²	A	A
0.2 0.34	4 5	4 5
0.5 0.75	6 9	6 9
1 1.5	13.5 17.5	13.5 17.5
2.5 4	24 32	24 32
6 10	41 57	41 57
16 25	76 101	76 101
35 –	125	125
50 70	150 192	
95 –	232	
120 150	269 309	
185 240	353 415	
300	520	

Conductor Size	Test Current per IEC/EN
	60947-7-1 Table 5
AWG/kcmil	A
24 22	4 6
20 18	8 10
– 16	 16
14 12	22 29
10 8	38 50
6 4	67 90
2 1	121 139
1/0 2/0	162 185
3/0 4/0	217 242
250 kcmil 300 kcmil	271 309
350 kcmil 500 kcmil	353 415
600 kcmil	520

• Current-Carrying Capacity Curve (Derating Curve) per EN 60512-5-2

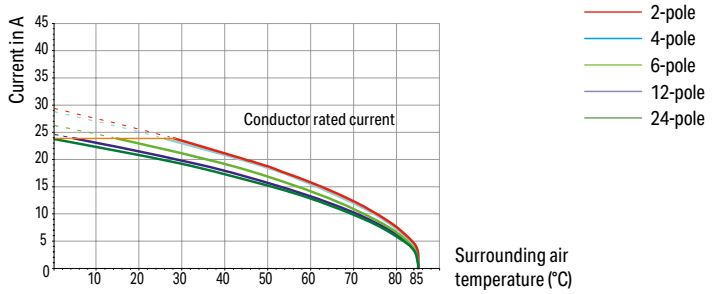
Both the design requirements (e.g., dimensions) and the current-carrying capacity of a connector must be checked by the user when selecting connectors.
This information depends on the following factors: conductor size, surrounding air temperature, number of simultaneously loaded poles, internal resistance of the connector, PCB layout, width and thickness of the printed circuits and connector materials.

A current-carrying capacity curve (basic curve) is determined based on the EN 60512-5-2 standard, accounting for the upper temperature limit.
The relationship between current, surrounding air temperature and temperature rise up to the connector's upper temperature limit is illustrated via current-carrying capacity curve (derating curve, reduction factor: 0.8).
The connector must only be operated up to this temperature limit (sum of the self-generated heat and the surrounding air temperature) without being damaged or destroyed during operation.

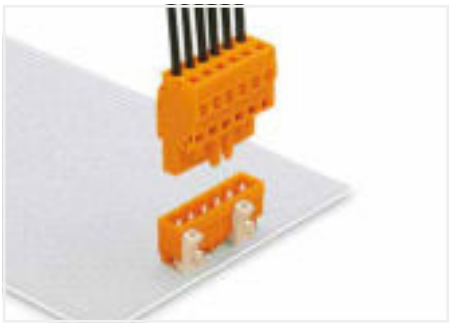
The nominal current figures given for the WAGO PCB Connectors are based on the maximum number of poles, the maximum conductor cross section and a maximum temperature rise of 45 K.

Note: Current-carrying capacity curves merely document the self-generated heat of the connectors and terminal blocks under defined test conditions (conductor length, commoning of solder pins).
Usability of the components in actual applications must be investigated by the user.

Functioning of a current-carrying capacity curve (derating curve) per EN 60512-5-2 is shown by an application using a derating curve for the ***MULTI CONNECTION SYSTEM***:
This application requires each pole of a 4-pole connector be subjected to a load of 20 A. Based on the derating curve determined for this pole number with a conductor cross section of 2.5 mm², it has been determined the maximum surrounding air temperature is 39°C (102.2°F). The current must be reduced at higher surrounding air temperatures, e.g., to 11 A at an surrounding air temperature of 70°C (158°F).



Derating curve derived from the current carrying capacity curve (reduction factor: 0.8)



Male header with straight solder pins
Female connector with CAGE CLAMP®

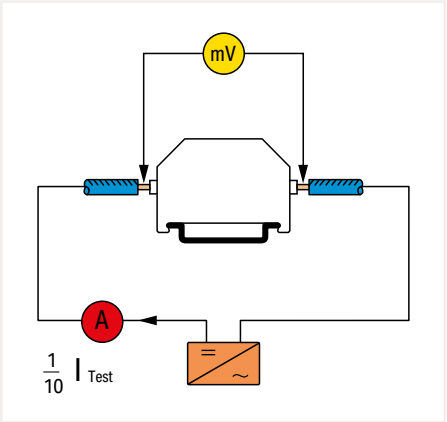
The non-reduced current-carrying capacity curves (basic curves, reduction factor: 1) can be used when selecting WAGO's PCB terminal blocks!
The nominal current values given are based on a 4-pole PCB terminal strip with a temperature rise of 45 K.

Example: 4-pole PCB terminal strip (2706 Series)

Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

- Voltage Drop Test per IEC/EN 60947-7-1, IEC/EN 60999-1

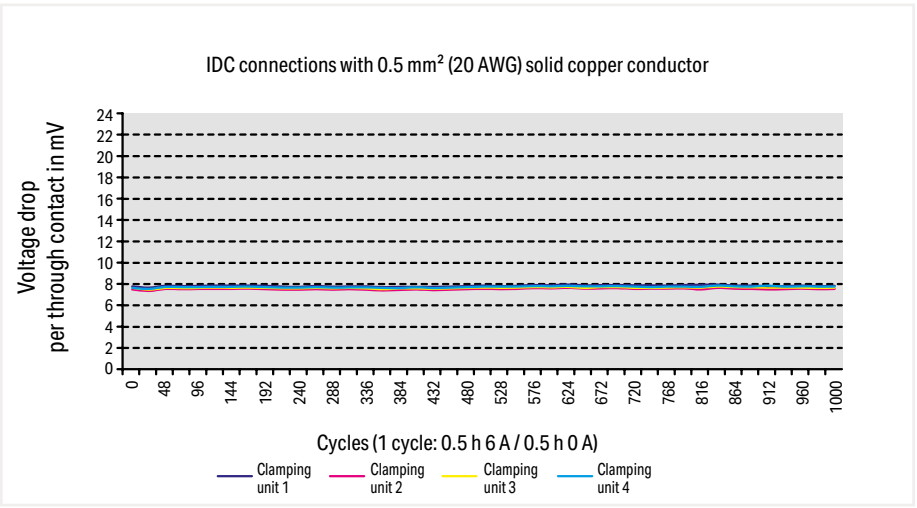
The voltage drop test evaluates clamping point quality under stress such as vibration, temperature change, industrial climate and salt spray, in order to verify that the contact point is gas-tight.

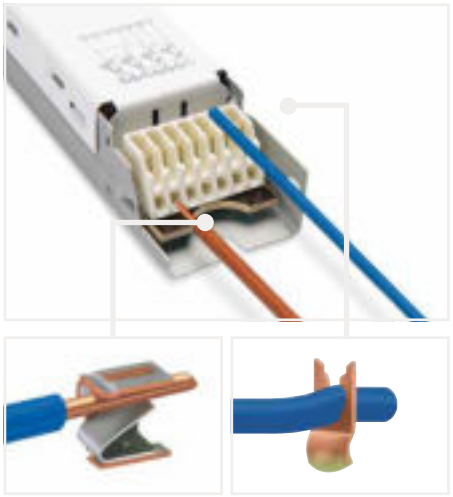


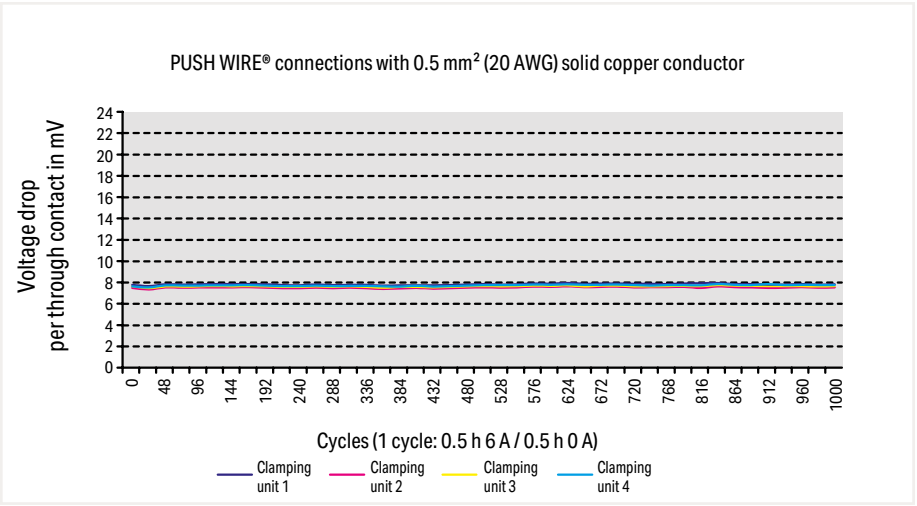
Test arrangement: "Voltage Drop Test"

Example: Current load cycling test result for Combi PCB terminal blocks with IDC and PUSH WIRE® connections

Voltage drop variation over longer periods under current load cycling conditions is shown for 251-3xx Combi PCB Terminal Blocks using solid copper conductors. The diagram shows that the voltage drop is constant, far beyond the 192 cycles required in IEC/EN 60998-2-2.







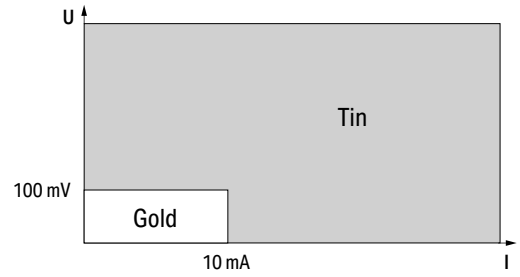
The voltage drop was determined at the rated current.

• Minimum Current / Specialty Connector Applications

The contact surfaces of WAGO's connectors are tin-plated. This surface exhibits excellent conductivity, along with outstanding protection against corrosion. However, during insertion, the contacts will penetrate any contamination that may have settled on this pure tin coating, leading to low contact resistance.

The following information regarding proper selection of suitable WAGO components should be considered for applications in which connectors are used with minimal current and voltage levels and under harsh conditions, involving, for example, temperature, aggressive gases, vibration and shock.
Signal corruption may occur in applications with minimal current and voltage levels under the special conditions cited above. In such cases, we recommend using gold-plated contacts. Here, the user must always examine the suitability of the connectors for the application at hand.

The diagram below is based on practical experience.



WAGO also offers connectors with gold-plated contacts upon request.

Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

• Insulation Parameters per IEC/EN 60664-1

Clearances and Creepage Distances
The following generally applies:
The equipment specification contains data for the measurement of clearances and creepage distances, or refers to the data contained in the new revised edition of the basic standard DIN EN 60664-1/VDE 0110-1. This standard contains new clearances and creepage distances in compliance with insulation coordination requirements. That is, the insulation parameters of equipment are assigned to:
- the anticipated surge voltages
- the parameters of the protection device against impulse voltage
- the anticipated environmental conditions and the protection measures against pollution.

This standard is based on IEC 60604-1.

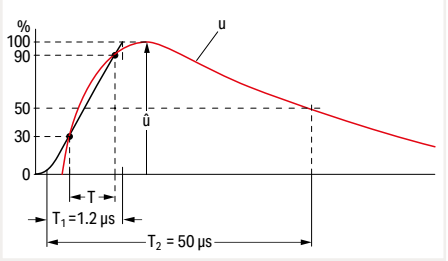
Overvoltage Categories for Electrical Equipment:
A specific overvoltage category must be defined on the basis of the following, general description:
- Equipment in **overvoltage category I** is intended to be connected to the fixed electrical installations of buildings. Protective means are taken outside the equipment – either in the fixed installation or between the fixed installation and the equipment – to limit transient overvoltages to the specific level.
- Equipment in **overvoltage category II** is to be connected to the fixed electrical installations of buildings.
  Note: Examples of such equipment are household appliances, portable tools and similar loads.
- Equipment in **overvoltage category III** is part of the fixed electrical installations and other equipment where a higher degree of availability is expected.
  Note: Examples of such equipment are distribution boards, circuit breakers, wiring systems (IEV 826-16-08, including cables, bus bars, junction boxes, switches, socket outlets) in the fixed installation and equipment for industrial use and other equipment, e.g., stationary motors with permanent connection to the fixed installation.
- Equipment in **overvoltage category IV** is for use in or near the feed-in of electrical building installations upstream of the main distribution board in the direction of the network.
  Note: Examples include electricity meters, primary overcurrent protection devices and ripple control units.

Clearances, Rated Surge Voltages, Overvoltage Categories, Pollution Degrees

Surge voltages (Table 1) are a decisive factor in determining clearances.

The basis forms the **overvoltage category**, i.e., the allocation of the equipment to the expected overvoltage, and the **conductor-ground voltage** derived from the nominal mains voltage in installations with a grounded Y (star) point.

In ungrounded installations, or installations where the conductor is not grounded, the voltage between conductors is applicable in the same way as conductor voltage to ground.



Voltage pulse: 1.2/50 µs per EN 60060-1/VDE 0432-1

The rated surge voltage must be selected from Table F.1 corresponding to the overvoltage category specified and to the rated voltage of the equipment.
Table F.1 – Rated Surge Voltage for Equipment Energized Directly from the Low-Voltage Mains (DIN EN 60664-1/VDE 0110-1)
Voltage Curve: 1.2/50 µs per IEC 60060-1/VDE 0432-1

Nominal voltage of the power supply system[1] (mains) per IEC 60038[3]		Conductor-to-neutral voltage, derived from the nominal AC or DC voltage up to and including:	Rated surge voltage[2] Overvoltage category[4]			
Three-phase V	Single-phase V	V	I V	II V	III V	IV V
		50	330	500	800	1500
		100	500	800	1500	2500
	120 … 240	150[5]	800	1500	2500	4000
230 / 400 277 / 480		300	1500	2500	4000	6000
400 690		600	2500	4000	6000	8000
1000		1000	4000	6000	8000	12000

[1] See Annex B for application to existing different low-voltage mains and their nominal voltages.
[2] Equipment with these rated impulse voltage levels can be used in installations complying with IEC 60364-4-443.
[3] The / mark indicates a 3-phase, 4-conductor system. The lower value is the conductor-to-neutral voltage, while the higher value is the conductor-to-conductor voltage. Where only one value is indicated, it refers to 3-phase, 3-conductor systems and specifies the conductor-to-conductor voltage.
[4] See 4.3.3.2.2 for an explanation of the overvoltage categories.
[5] The nominal voltages for single-phase systems in Japan are 100 V or 100 … 200 V. The value for the rated impulse voltage is, however, derived from the voltage gaps conductor-to-neutral for a voltage level of 150 V (see Annex B).

The nominal supply voltage and the corresponding rated impulse voltage values apply for grounded and ungrounded circuits.

Pollution Degrees

Pollution factors are all solid, liquid or gaseous foreign matter which may reduce the dielectric strength or the specific surface resistance. Factors are divided into four classes based on expected environmental conditions:

		Examples of pollution degrees for assigned areas:
Pollution degree 1:	No pollution, or only dry, non-conductive pollution occurs. Pollution has no influence.	Open, unprotected insulated equipment in air-conditioned or clean, dry rooms
Pollution degree 2:	Only non-conductive pollution occurs. Occasional, temporary conductivity caused by condensation can also be expected.	Open, unprotected insulated equipment in occupied areas, shops, laboratories, mechanical workshops and medical rooms.
Pollution degree 3:	Conductive pollution occurs, or dry, non-conductive pollution occurs which will become conductive due to condensation.	Open, unprotected insulated equipment in industrial, business and farming areas (e.g., unheated rooms, workshops and boiler rooms)
Pollution degree 4:	The pollution generates persistent conductivity caused by conductive dust, rain or wet conditions.	Open, unprotected insulated equipment for outdoor use

Dimensioning Clearances

(DIN EN 60664-1/VDE 0110-1, Table F.2)
Select the minimum clearances in accordance with the rated surge voltages and pollution degrees. To maximize the operating life of the equipment, do not go below these minimum clearances.
Table F.2 contains a list of information for Case A, the inhomogeneous field and for Case B, the homogeneous field.
This involves an electric field with essentially constant (Case B) or non-constant (Case A) voltage gradients between the electrodes.
Equipment with a clearance that is dimensioned per Case A, in other words rated for the most unfavorable case, requires no verification by the impulse voltage test.
Equipment with a clearance that is dimensioned per Case B, or between A and B, requires verification by the impulse voltage test.

The clearances shown in Table F.2 are applicable for an installation height of up to 2000 m above sea level.

Values for clearances above 2000 m must be multiplied by a high correction factor in accordance with Table A.2.

Table F.2 – Clearances to Withstand Transient Overvoltages

DIN EN 60664-1/VDE 0110-1

Required Impulse Withstand Voltage[1)5)]	Minimum Clearances in Air up to 2000 m Above Sea Level					
	Case A Inhomogeneous Field (see 3.15)			Case B Homogeneous Field (see 3.14)		
	Pollution Degree[6]			Pollution Degree[6]		
	1	2	3	1	2	3
kV	mm	mm	mm	mm	mm	mm
0.33[2)]	0.01	0.2[3)4)]	0.8[4)]	0.01	0.2[3)4)]	0.8[4)]
0.4	0.02			0.02		
0.5[2)]	0.04			0.04		
0.6	0.06			0.06		
0.8[2)]	0.10			0.10		
1	0.15			0.15		
1.2	0.25	0.25		0.2		
1.5[2)]	0.5	0.5		0.3	0.3	
2	1	1	1	0.45	0.45	
2.5[2)]	1.5	1.5	1.5	0.6	0.6	
3	2	2	2	0.8	0.8	
4[2)]	3	3	3	1.2	1.2	1.2
5	4	4	4	1.5	1.5	1.5
6[2)]	5.5	5.5	5.5	2	2	2
8[2)]	8	8	8	3	3	3
10	11	11	11	3.5	3.5	3.5
12[2)]	14	14	14	4.5	4.5	4.5
15	18	18	18	5.5	5.5	5.5
20	25	25	25	8	8	8
25	33	33	33	10	10	10
30	40	40	40	12.5	12.5	12.5
40	60	60	60	17	17	17
50	75	75	75	22	22	22
60	90	90	90	27	27	27
80	130	130	130	35	35	35
100	170	170	170	45	45	45

[1)] This voltage is for:
- Functional insulation: the maximum impulse voltage expected to occur across the clearance (see 5.1.5)
- Basic insulation directly exposed to or significantly influenced by transient overvoltages from the low-voltage mains (see 4.3.3.3, 4.3.3.4.1 and 5.1.6): the rated impulse voltage for the equipment;
- Other basic insulation (see 4.3.3.4.2): the highest impulse voltage that can occur in the circuit
  For reinforced insulation, see 5.1.6.

[2)] Preferred values specified in 4.2.3

[3)] For printed wiring material, the values for pollution degree 1 apply, except that the value must not be less than 0.04 mm, as specified in Table F.4.

[4)] The minimum clearances given for pollution degree 2 and 3 are based on the reduced withstand characteristics of the associated creepage distance under humidity conditions (see IEC 60664-5).

[5)] For parts or circuit within equipment subject to surge voltages based on 4.3.3.4.2, interpolation of values is allowed. However, standardization is achieved by using the preferred series of impulse voltage values based on 4.2.3.

[6)] The dimensions for pollution degree 4 are as specified for pollution degree 3, except that the minimum clearance is 1.6 mm.

Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

• Insulation Parameters per IEC/EN 60664-1 (continued)

Creepage Distances, Rated Voltages, Material Groups

Criteria for dimensioning creepage distances are the rated voltages, pollution degrees and material groups.
The pollution degrees specified for the clearances, and its quoted allocation to locations, is also applicable for creepage distances.
Tables F.3 a and F.3 b of DIN EN 60664-1/ VDE 0110-1 contain the rated voltages that have to be considered for dimensioning the minimum creepage distances.

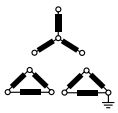
Altitude m	Standard Air Pressure (in kPa)	Multiplier for Clearances
2000	80	1
3000	70	1.14
4000	62	1.29
5000	54	1.48
6000	47	1.7
7000	41	1.95
8000	35.5	2.25
9000	30.5	2.62
10000	26.5	3.02
15000	12	6.67
20000	5.5	14.5

Table F.3a – Single-Phase, 3- or 2-Conductor, AC or DC Systems

Nominal Voltage of the Power Supply System (Mains)* V	Voltages for Table F.4 For insulation conductor-to-conductor[1)] All systems V	 For insulation conductor-to-ground[1)] Three-conductor systems, center-point grounded V
12.5	12.5	
24 25	25	
30	32	
42 48 50**	50	
60	63	
30 to 60	63	32
100**	100	
110 120	125	
150**	160	
200	200	
110 to 200	200	100
220	250	
110 to 220 120 to 240	250	
300**	320	
220 to 440	500	250
600**	630	
480 to 960	1000	500
1000**	1000	

[1)] Conductor-to-ground insulation level for non-grounded or impedance-grounded systems equals that for conductor-to-conductor, as the operating voltage to ground of any conductor can, in practice, approach full conductor-to-conductor voltage. This is because the actual voltage to ground is determined by the insulation resistance and capacitive reactance of each conductor to ground; thus, low (but acceptable) insulation resistance of one conductor can in effect ground it and raise the other two to full conductor-to-conductor voltage to ground.
*For the relationship to rated voltage, see 4.3.2.
**These values correspond to the values given in Table F.1.

Table F.3b – Single-Phase, 4- or 3-Conductor AC Systems

Nominal Voltage of the Power Supply System (Mains)*	Voltages for Table F.4		
	For insulation conductor-to-conductor[1]	For insulation conductor-to-ground[1]	
	All systems	Three-phase, 4-conductor systems with grounded neutral conductor[2]	Three-phase, 3-conductor systems, non-grounded[1] or grounded conductor 
V	V	V	V
60	63	32	63
110 120 127	125	80	125
150**	160		160
200	200		200
208	200	125	200
220 230 240	250	160	250
300**	320		320
380 400 415	400	250	400
440	500	250	500
480 500	500	320	500
575	630	400	630
600**	630		630
660 690	630	400	630
720 830	800	500	800
960	1000	630	1000
1000**	1000		1000

[1] Conductor-to-ground insulation level for non-grounded or impedance-grounded systems equals that for conductor-to-conductor, as the operating voltage to ground of any conductor can, in practice, approach full conductor-to-conductor voltage. This is because the actual voltage to ground is determined by the insulation resistance and capacitive reactance of each conductor to ground; thus, low (but acceptable) insulation resistance of one conductor can in effect ground it and raise the other two to full conductor-to-conductor voltage to ground.
[2] For equipment used on both three-phase, 4-conductor and three-phase, 3-conductor systems, grounded and non-grounded, use only the values for 3-conductor systems.
*For the relationship to rated voltage, see 4.3.2.
**These values correspond to the values given in Table F.1.

Material Groups

Insulation materials are classified into four groups according to their Comparative Tracking Index (CTI) as follows:

Material Group I: 600 ≤ CTI
Material Group II: 400 ≤ CTI < 600
Material Group IIIa: 175 ≤ CTI < 400
Material Group IIIb: 100 ≤ CTI < 175

The CTI values above refer to values obtained in accordance with DIN EN 60664-1/ VDE 0110-1 on samples specially made for this purpose and tested with Solution A.

Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

- Insulation Parameters per IEC/EN 60664-1 (continued)

Table F.4 – Creepage Distances to Avoid Failure due to Tracking
DIN EN 60664-1/VDE 0110-1

Voltage[1] (RMS)	Minimum Creepage Distances								
	Printed Circuits		Pollution Degree						
	Pollution Degree								
	1 All Material Groups	2 All Material Groups except IIIb	1 All Material Groups	2 Material Group I	2 Material Group II	2 Material Group III	3 Material Group I	3 Material Group II	3 Material Group III[2]
V	mm	mm	mm	mm	mm	mm	mm	mm	mm
10	0.025	0.04	0.08	0.4	0.4	0.4	1	1	1
12.5	0.025	0.04	0.09	0.42	0.42	0.42	1.05	1.05	1.05
16	0.025	0.04	0.1	0.45	0.45	0.45	1.1	1.1	1.1
20	0.025	0.04	0.11	0.48	0.48	0.48	1.2	1.2	1.2
25	0.025	0.04	0.125	0.50	0.5	0.5	1.25	1.25	1.25
32	0.025	0.04	0.14	0.53	0.53	0.53	1.3	1.3	1.3
40	0.025	0.04	0.16	0.56	0.8	1.1	1.4	1.6	1.8
50	0.025	0.04	0.18	0.6	0.85	1.2	1.5	1.7	1.9
63	0.04	0.063	0.2	0.63	0.9	1.25	1.6	1.8	2
80	0.063	0.1	0.22	0.67	0.95	1.3	1.7	1.9	2.1
100	0.1	0.16	0.25	0.71	1	1.4	1.8	2	2.2
125	0.16	0.25	0.28	0.75	1.05	1.5	1.9	2.1	2.4
160	0.25	0.4	0.32	0.8	1.1	1.6	2	2.2	2.5
200	0.4	0.63	0.42	1	1.4	2	2.5	2.8	3.2
250	0.56	1	0.56	1.25	1.8	2.5	3.2	3.6	4
320	0.75	1.6	0.75	1.6	2.2	3.2	4	4.5	5
400	1	2	1	2	2.8	4	5	5.6	6.3
500	1.3	2.5	1.3	2.5	3.6	5	6.3	7.1	8 (7.9)[4]
630	1.8	3.2	1.8	3.2	4.5	6.3	8 (7.9)[4]	9 (8.4)[4]	10 (9)[4]
800	2.4	4	2.4	4	5.6	8	10 (9)[4]	11 (9.6)[4]	12.5 (10.2)[4]
1000	3.2	5	3.2	5	7.1	10	12.5 (10.2)[4]	14 (11.2)[4]	16 (12.8)[4]
1250			4.2	6.3	9.	12.5	16 (12.8)[4]	18 (14.4)[4]	20 (16)[4]
1600			5.6	8	11	16	20 (16)[4]	22 (17.6)[4]	25 (20)[4]
2000			7.5	10	14	20	25 (20)[4]	28 (22.4)[4]	32 (25.6)[4]
2500			10	12.5	18	25	32 (25.6)[4]	36 (28.8)[4]	40 (32)[4]
3200			12.5	16	22	32	40 (32)[4]	45 (36)[4]	50 (40)[4]
4000			16	20.	28	40	50 (40)[4]	56 (44.8)[4]	63 (50.4)[4]
5000			20	25	36	50	63 (50.4)[4]	71 (56.8)[4]	80 (64)[4]
6300			25	32	45	63	80 (64)[4]	90 (72)[4]	100 (80)[4]
8000			32	40	56	80	100 (80)[4]	110 (88)[4]	125 (100)[4]
10000			40	50	71	100	125 (100)[4]	140 (112)[4]	160 (128)[4]
12500			50[3]	63[3]	90[3]	125[3]			
16000			63[3]	80[3]	110[3]	160[3]			
20000			80[3]	100[3]	140[3]	200[3]			
25000			100[3]	125[3]	180[3]	250[3]			
32000			125[3]	160[3]	220[3]	320[3]			
40000			160[3]	200[3]	280[3]	400[3]			
50000			200[3]	250[3]	360[3]	500[3]			
63000			250[3]	320[3]	450[3]	600[3]			

[1] This voltage is for:
- Functional insulation; the working voltage
- Basic and supplementary insulation of the circuit energized directly from the mains (see 4.3.2.2.1): for the voltage rationalized through Table F.3a or F.3b, based on the rated voltage of the equipment, or the rated insulation voltage
- Basic and supplementary insulation of systems, equipment and internal circuits not energized directly from the mains (see 4.3.2.2.2.): the highest rms voltage which can occur in the system, equipment or internal circuit when supplied at rated voltage and under the most taxing combination of operation conditions within equipment rating

[2] Material group IIIb is not recommended for applications in pollution degree 3 above 630 V.
[3] Provisional data based on extrapolation. Technical committees who have other information based on experience may use their dimensions.
[4] The values in brackets must only be applied for reducing creepage distances if a rib is used (see 5.2.5).

The high degree of accuracy of the creepage distances given in the table does not imply that the measuring accuracy must be of the same quality.

Depending on the intended use, WAGO's terminal blocks, splicing and pluggable connectors are suitable for pollution degrees 2 or 3 and for overvoltage categories II or III.
The rated voltages of WAGO's PCB terminal blocks and connectors are based on pollution degree 2 and overvoltage category III in per IEC/EN 60664-1 (insulation parameters).

Example:

WAGO 236 Series PCB Terminal Strips
(5/5.08 mm pin spacing)
320 V/4kV/2

Rated voltage	320 VDC
Rated surge voltage	4 kV
Pollution degree	2
Overvoltage category	III

The specific values for pollution degree 3 and overvoltage category II are also given in the technical data.

The clearances and creepage distances required for defined voltage values in Table 3 of IEC/EN 60998-1 deviate somewhat from the requirements specified in the insulation parameters.

Table 3 – Clearances and Creepage Distances
(IEC/EN 60998-1)

Rated Insulation Voltage V	Clearances/Creepage Distances mm
≤ 130	1.5
> 130 and ≤ 250	3
> 250 and ≤ 450	4
> 450 and ≤ 750	6
> 750	8

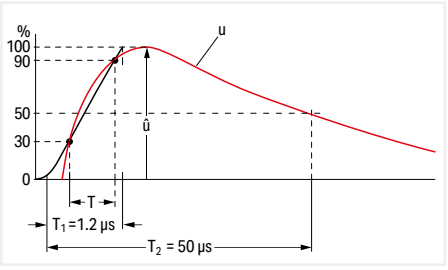
Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

• Power-Frequency Withstand Voltage Test per IEC/EN 60947-7-4, IEC/EN 60998-1

This testing procedure verifies creepage distances. Creepage distances, i.e., the distances of creeping currents, are caused by conductive impurities on the surface of the insulation housing. Apart from the amount of impurities to which a terminal block is subjected, for example, the plastic material and housing design are also involved in generating creeping currents. The insulation material of the housing may be carbonized by a creeping current, which further increases conductivity.
The specimen is tested using a power-frequency withstand voltage for a short time. For example, a PCB terminal block designed to operate at 320 V nominal voltage is usually tested using 2200 V alternating voltage for one minute. The test is passed if no flashovers or breakdowns have occurred.

• Rated Impulse Withstand Voltage Test per IEC/EN 60947-7-4, IEC/EN 60664-1

This test verifies the clearances of a product. In simplified terms, clearance is the distance between two poles of a terminal block. If this distance is too small, voltage peaks may cause flashovers or breakdowns. The arrangement of the rated impulse withstand voltage test is identical to that of the power frequency withstand voltage test; the test voltages, however, are comparatively higher and the testing times shorter, e.g., 4.8 kV over 50 µs (see figure).



Voltage pulse: 1.2/50 µs per EN 60060-1/VDE 0432-1

Voltage pulse: measurement curve (red) and auxiliary curve (black) for calculating the rate of rise of the pulse and the resulting (virtual) peak of the curve.

T: Time interval for calculating the rate of rise
T1: Front time (duration between start of impulse and reaching the peak)
T2: Total pulse duration

The test values are the values at sea level as specified in the relevant test specification.
The values indicated in the catalog correspond to an altitude of 2000 m.
The test is passed if no flashovers or breakdowns have occurred.

• IP Ratings for Electrical Equipment per IEC/EN 60529

Alphanumeric Nomenclature for Type of Protection			
Code letters IP	Protection against accidental contact and against the penetration of foreign objects or water	IP (Ingress Protection) = International degree of protection	
First code number 0 to 6	Indicates the degree of protection against accidental contact and the penetration of foreign objects.	If indicating the degree of protection requires only one digit, the other (second) digit must be substituted for with an X.	
Second code number 0 to 8	Indicates the degree of protection against water penetration.		
First code number:		Second code number:	
IP0X	No protection against accidental contact or the penetration of foreign objects	IPX0	No protection against water
IP1X	Protection against foreign objects > 50 mm	IPX1	Protection against vertically falling water
IP2X	Protection against foreign objects > 12 mm (e.g., finger)	IPX2	Protection against diagonally dripping water (15° angle)
IP3X	Protection against foreign objects > 2.5 mm	IPX3	Protection against water spray
IP4X	Protection against foreign objects > 1 mm	IPX4	Protection against water spray
IP5X	Protection against damaging dust deposits	IPX5	Protection against water jet, e.g., from a nozzle
IP6X	Protection against dust penetration	IPX6	Protection against flooding
		IPX7	Protection against temporary immersion
		IPX8	Protection against continuous immersion
		IPX9	Protection against high-pressure and high-temperature water jets

IP vs. NEMA	
IP Code	NEMA
10	1
11	2
54	3
14	3R
54	3S
55	4&4X
52	5
67	6&6P
52	12&12K
54	13

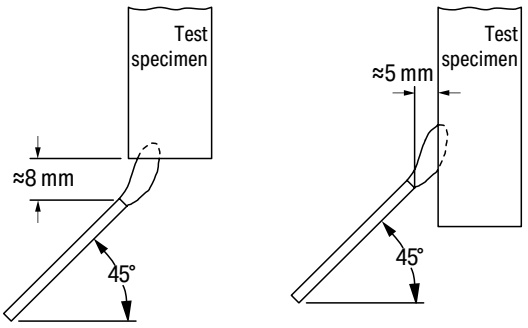
Tests and Testing Procedures per IEC/EN Standards (continued)

Material Tests

All WAGO products meet requirements for the following material tests:

• Needle Flame Test per IEC/EN 60947-7-1, IEC/EN 60695-11-5

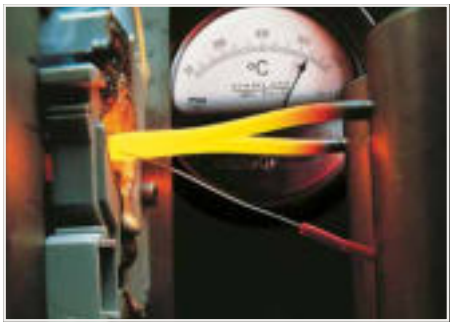
This test simulates flames that may arise under certain conditions (e.g, fault current over a creepage distance, overloading of parts or components). Nearby parts can also be affected by such flames.
Not only the ignition of the test specimen resulting from an intrinsic defect is tested, but also its behavior when other parts ignite.



Flames must not be fuelled by the insulation materials used, thus creating a larger fire. The test specimen is exposed to a standard gas flame during a defined time period (e.g., ten seconds).
After the test flame has been removed, the specimen must self-extinguish within 30 seconds. Furthermore, a layer of tissue paper located beneath the specimen must not be ignited by glowing particles falling from the specimen.

• Glow-Wire Test per IEC/EN 60947-7-4, IEC/EN 60998-1, IEC/EN 60695-2-11

In the event of failure, a high current may cause a conductor to glow.



However, the glowing conductor shall not cause ignition of the product involved (e.g., a rail-mount terminal block). For the glow-wire test, the tip of the glow-wire is pressed against a surface of the test specimen (see picture).
The position of the test specimen, surface to be tested, test duration and glow-wire temperature (e.g., 960°C/1760°F over 30 seconds, or 850°C/1562°F over 5 seconds) are specified in the standards.
The specimen must be positioned such that the tip of the glow-wire acts on the surface section of the specimen (vertical surface of the specimen) that is most likely to be exposed to thermal loading during normal use.

As the highest temperature in the event of a fault is anticipated at the contact insert/wire connection, the tip of the glow-wire must act upon the section of the insulation housing that is the closest to this contact point.
The test is passed if there are no visible flames or permanent glowing, or if flames or glowing extinguish within 30 seconds after removal of the glow-wire. Furthermore, a layer of tissue paper located beneath the specimen must not be ignited by glowing particles falling from the specimen.

Tests and Testing Procedures per IEC/EN Standards (continued)

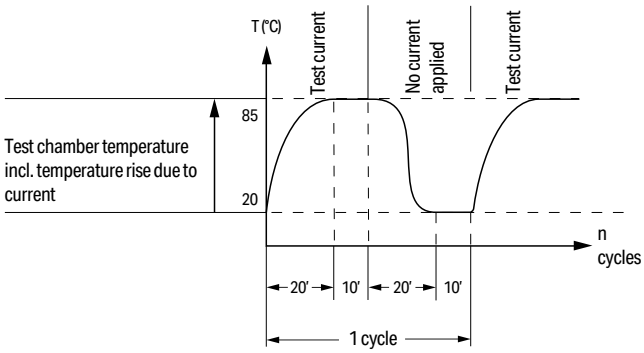
Environmental Tests

The following tests show how a product reacts when exposed to an aggressive environment. Climatic chambers simulate standard atmospheres that could impact the long-term consistency of clamping units.

All WAGO products meet the requirements of the following environmental tests:

- Temperature Cycling Test per IEC/EN 60947-7-1, IEC/EN 60998-2-2

This test shows the change of voltage drop over longer periods under temperature cycling conditions. The test procedure usually consists of 192 temperature cycles, for example, each cycle having a duration of 60 minutes (see diagram).



The rated current is applied to the test specimen during temperature rise and when the temperature has reached its maximum value; during the second half of the cycle, the current is zero. Voltage drop is measured every 24 cycles and must not exceed a maximum value or vary greatly. The voltage drop measured at the end of the 192nd cycle must not exceed 1.5 times the value measured after the 24th cycle. After the test, an inspection must show no changes that would impair further use of the product.

- Industrial Atmospheres per EN ISO 6988, IEC/EN 60068-2-42, IEC/EN 60068-2-60

Sulphur and its combustion products are particularly aggressive pollutants commonly found in industrial environments. A test procedure simulating such corrosive conditions consists of exposing a test specimen to water condensation in variable atmospheres containing sulphur dioxide.

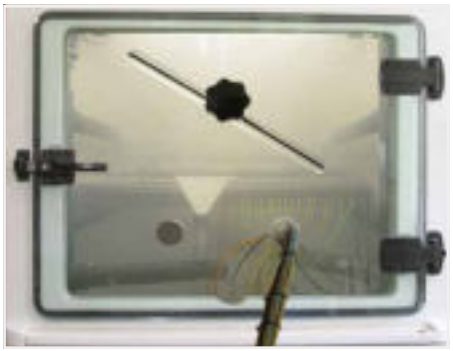
A saturated atmosphere is first created in a climatic chamber by heating an aqueous sulphur dioxide solution. After less than half an hour, the test specimen is fully saturated by the condensing vapors and exposed to this atmosphere for eight hours.

After exposure to a humid atmosphere, the test specimen is subjected to dry and cooler conditions at room temperature for 16 hours. Depending on the test severity, the specimen is exposed to both these conditions several times. The gas-tightness of the clamping unit is verified by a voltage drop test.

In other test procedures, products are exposed to a dry corrosive gas atmosphere containing sulfide, nitrogen and sulfur oxides or chloride gas. These tests can be performed over a period of four to 21 days.

• Salt Spray Test per IEC/EN 60068-2-11; DNV GL, LR (Marine Applications)

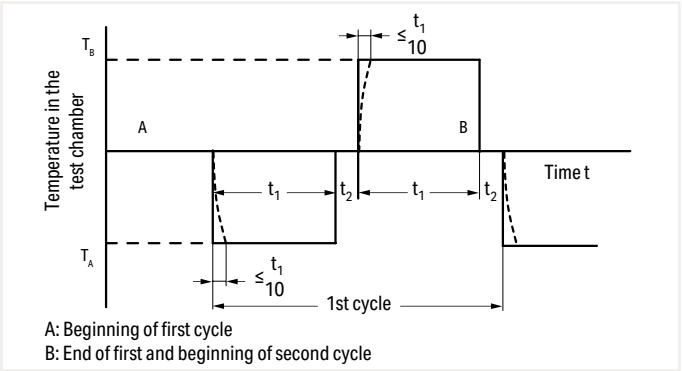
This test is similar to the test performed in water condensation alternating atmospheres, except that instead of industrial atmospheres, salt mist conditions will be simulated in a heated test chamber (see picture).



Depending on the test procedure being used, the test specimen is sprayed with salt mist for 16 hours up to 672 hours (4 weeks).
Salt spray tests are widely used, especially for marine approvals.
However, this test is performed differently than the test procedures described previously for general applications:
During a typical test, the test specimen is sprayed with a salt solution for two hours and is then stored for seven days in an atmosphere with a relative humidity between 90 and 95%.
This procedure is repeated four times.
Voltage drop measurements are used as an evaluation criterion.

• Quick Change of Temperature per IEC/EN 60068-2-14

Without air-conditioning, distribution panels and terminal boxes are exposed to seasonal (and ever-changing) temperature extremes – especially on the open field side.
In process technology, for example, a terminal block is exposed to even quicker changes in temperature.

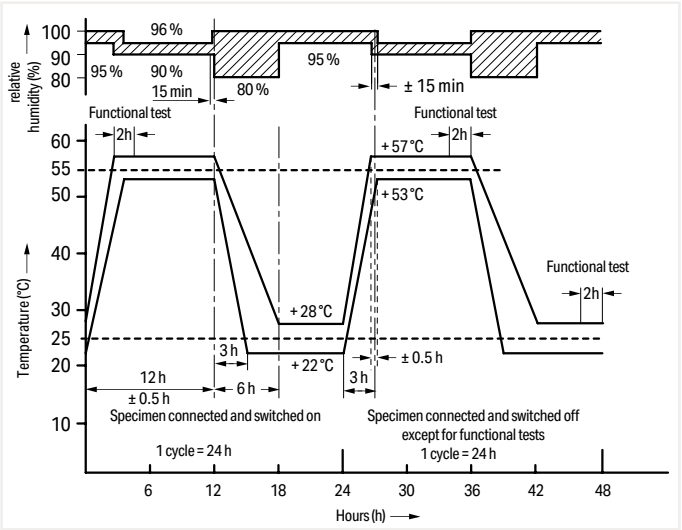


A: Beginning of first cycle
B: End of first and beginning of second cycle

To simulate such conditions, the test specimen is exposed to repeated temperature changes, for example, between TA −40°C (−104°F) and TB +70°C (+158°F).
The dwell time t1 depends on the thermal capacity of the test specimen and should be between maximum of 3 h and minimum of 10 min and the transition time t2 2 … 3 min, 20 … 30 s or less than 10 s.
The mechanical and electrical properties of the product are checked at the end of the test.

• Damp Heat, Cyclic (12 + 12 Hour Cycle) per IEC/EN 60068-2-30, DNV GL, LR (Marine Applications)

This test determines the suitability of electrical equipment for use and storage under conditions of high relative humidity when combined with cyclic temperature changes and, in general, producing condensation on the surface of the specimen.



In addition to the salt spray tests, the damp heat test is also used for marine approvals.
For this test, the specimens are subjected to temperatures varying cyclically between +25°C (+77°F) and +55°C (+131°F) with a relative humidity of 95% (for tolerances see figure).
Functional tests are performed at defined times during the storage period.
The mechanical and electrical properties of the product are checked at the end of the test.

UL Specifications – Underwriters Laboratories, USA

WAGO's terminal blocks and connectors are tested by Underwriters Laboratories Inc. according to one or more of the relevant following UL standards:

• PCB terminal strips (e.g., 236, 745 Series) are approved as non-stand-alone components per UL 1059 in connection with UL 486E.	UL 1059	Standard for terminal blocks
• The *MULTI CONNECTION SYSTEM* "*MCS*-MIDI" is approved as terminal blocks per UL 1059 standard in connection with UL 486 E. It is therefore defined for field and factory wiring with at 300 V.	UL 486 E	Equipment wiring terminals for use with aluminum and/or copper conductors
• It is also approved as connectors for use in data, signal, control and power applications per UL 1977 for factory wiring at 600 V (i.e., the clamping unit must be wired under controlled manufacturing conditions).	UL 1977	Component connectors for use in data, signal, control and power applications
• Ex e II terminal blocks are approved to UL 60079-7.	UL 60079-7	Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety
• Insulation materials are tested for flammability and performance per UL 94.	UL 94	Tests for flammability of plastic materials for parts in devices and appliances

Tests and Testing Procedures per UL Standards

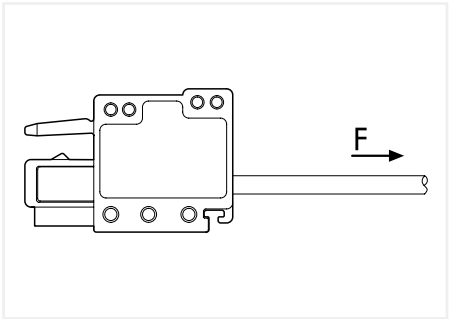
All WAGO products meet requirements for the following tests:

- Pull-Out Test per UL 1059, UL 486 E

In this test, the connected conductors are subjected to the appropriate pull-out forces specified in the following table without jerking for a period of one minute.

Conductor Size		Pull-Out Force, Pounds (N)			
		UL 486 E, Table 22			
AWG or kcmil	(mm²)	Copper		Aluminum	
30	(0.05)	0.5	(2.2)	-	-
28	(0.08)	1	(4.5)	-	-
26	(0.13)	2	(8.9)	-	-
24	(0.2)	3	(13.4)	-	-
22	(0.32)	4.5	(20)	-	-
20	(0.52)	6.75	(30)	-	-
18	(0.82)	6.75	(30)	-	-
16	(1.3)	9	(40)	-	-
14	(2.1)	11.5	(50)	-	-
12	(3.3)	13.5	(60)	10	(44)
10	(5.3)	18	(80)	10	(44)
8	(8.4)	20.5	(90)	10	(44)
6	(13.3)	21	(94)	28	(124)
4	(21.2)	30	(133)	36	(160)
3	(26.7)	35	(156)	42	(187)
2	(33.6)	42	(186)	50	(222)
1	(42.4)	53	(236)	61	(271)
1/0	(53.5)	64	(285)	72	(320)
2/0	(67.4)	64	(285)	78	(347)
3/0	(85.0)	79	(351)	97	(432)
4/0	(107)	96	(427)	116	(516)
250	(127)	96	(427)	116	(516)
300	(156)	99	(441)	116	(516)

Test Arrangement per
UL 1059, UL 486 E:



UL Specifications – Underwriters Laboratories, USA (continued)
Tests and Testing Procedures per UL Standards (continued)

- Heat Cycling Test per UL 1059, UL 486 E

Test performed per:

UL 1059

Test performed with maximum rated cross section

Test current: 150% of maximum rated current

84 cycles of: 3 1/2 h ON / 1/2 h OFF

The temperature rise is measured after the first and the 84th cycle.

The temperature rise must not exceed 5°C (41°F) after the 84th cycle, compared to the temperature measured after the first cycle.

per UL 486 E (Equipment wiring terminals)

Test performed with maximum rated cross section

Test current: Increased test current per UL 486 E, Table 4

500 cycles of: 1 h ON / 1 h OFF
1 1/2 h ON / 1 1/2 h OFF
(from 4/0 AWG up to 400 kcmil per UL 486 E)

The temperature rises at the terminal blocks and control conductors are measured and recorded after: 1, 25, 50, 75, 100, 125, 175, 225, 275, 350, 425 and 500 cycles.

The temperature rise must not exceed 125°C (257°F) and the stability factor "S" must not exceed ±10.

Conductor Size		Test Current for Copper Conductors in A						
		UL 486 E, Table 4						
AWG or kcmil	(mm²)	Assigned Maximum Ampere Rating[b]	Static Heating[a,c,g]		Heat Cycling Temperature Rating[a]			
					75°C (167°F)[d,g]		90°C (194°F)[e,g]	
30	(0.05)	-		3		3.5		4
28	(0.08)	-		3.5		4		5
26	(0.13)	-		5.5		6		8
24	(0.2)	-		7		8		10
22	(0.32)	-		9		12		13
20	(0.52)	-		12		16		17
18	(0.82)	-		17		19		24
16	(1.3)	-		18		20		31
14	(2.1)	15	[20]	30	[22]	33	[27]	40
12	(3.3)	20	[25]	35	[28]	39	[40]	54
10	(5.3)	30	[40]	50	[45]	56	[60]	75
8	(8.4)	50		70		80		100
6	(13.3)	65		95		105		131
4	(21.2)	85		125		140		175
3	(26.7)	100		145		165		205
2	(33.6)	115		170		190		240
1	(42.4)	130		195		220		275
1/0	(53.5)	150		230		255		320
2/0	(67.4)	175		265		300		370
3/0	(85.0)	200		310		345		435
4/0	(107)	230		360		405		505
250	(127)	255		405		445		565
300	(152)	285		445		500		625

[a] See Section 7.2, 8.2 and 9.2 (UL 486 E)
[b] Values are for 75°C (167°F), not more than three conductors in raceway or cable ampacities, National Electric Code, ANSI/NFPA 70.
[c] Values are for 75°C (167°F) single conductors in free air ampacities, National Electric Code, ANSI/NFPA 70.
[d] Values are approximately 112% of the static heating test currents.
[e] Values for 8 AWG and larger conductors are approximately 140% of the static heating test currents.
[f] See Section 9.2.4
[g] Values in parentheses apply to connectors with assigned ampere ratings.

- Conditioning – Temperature-Rise Rest per UL 1059

Test performed per:

per UL 1059 (terminal blocks)

Conditioning:

The clamping units are **pre-wired/pre-inserted nine times** using a conductor with maximum rated cross section. At the 10th time, a new conductor is connected.
After this, a static heating test is performed.

Static Heating Test:

Test current:	Terminal block rated current
Test duration:	30 days
Max. permissible temperature rise:	30°C (86°F)

UL Specifications – Underwriters Laboratories, USA (continued)
Tests and Testing Procedures per UL Standards (continued)

• Insulation Parameters per UL 1059

The table below shows the potential involved and the corresponding clearances and creepage distances required in different applications.

Table 8.1 – Minimum Acceptable Spacing for Terminal Blocks per UL 1059 Standard

		Spacing in inches (mm) between uninsulated live parts of opposite polarity, uninsulated live parts and uninsulated grounded parts other than the enclosure			
Application:	Potential Involved in Volts	Through Air		Over Surfaces	
A. Dead-front switchboards, panelboards, service equipment and similar applications	51 … 150 151 … 300 301 … 600	1/2 3/4 1	(12.7) (19.1) (25.4)	3/4 1-1/4 2	(19.1) (31.8) (50.8)
B. Commercial appliances, including business equipment, electronic data processing equipment and similar applications	51 … 150 151 … 300 301 … 600	1/16[a] 3/32[a] 3/8	(1.6)[a] (2.4)[a] (9.5)	1/16[a] 3/32[a] 1/2	(1.6)[a] (2.4)[a] (12.7)
C. Industrial, general	51 … 150 151 … 300 301 … 600	1/8[a] 1/4 3/8	(3.2)[a] (6.4) (9.5)	1/4 3/8 1/2	(6.4) (9.5) (12.7)
D. Industrial, devices having limited ratings[b]	51 … 300 301 … 600	1/16[a] 3/16[a]	(1.6)[a] (4.8)[a]	1/8[a] 3/8	(3.2)[a] (9.5)
E. Terminal blocks rated 601 … 1500 V[c]	601 … 1000 1001 … 1500	0.55 0.70	(14.0) (17.8)	0.85 1.20	(21.6) (30.5)

Notes:

1 A slot, groove, or similar, 0.013 inch (0.33 mm) wide or less in the contour of the insulating material is to be disregarded.
2 Air space of 0.33 mm or less between a live part and an insulating surface is to be disregarded for the purpose of measuring over surface spacing.
[a] The spacing between terminal blocks of opposite polarity and the spacing between a terminal block and a grounded dead metal part shall not be less than 1/4 inch (6.4 mm) if short-circuiting or grounding of such terminal blocks may result from protruding wire strands.
[b] See Section 8.5 (UL 1059)
The spacing values indicated in sub-paragraph D in Table 8.1 are applicable to a terminal block for use only in or with industrial control equipment where the load on any single circuit of the terminal block does not exceed 15 A at 51 … 150 V, 10 A at 151 … 300 V, 5 A at 301 … 600 V or the maximum ampere rating, whichever is less.
[c] Applies only to terminal blocks investigated to Part II of this standard. See Section 22.1 (UL 1059).

• Flammability Test per UL 94

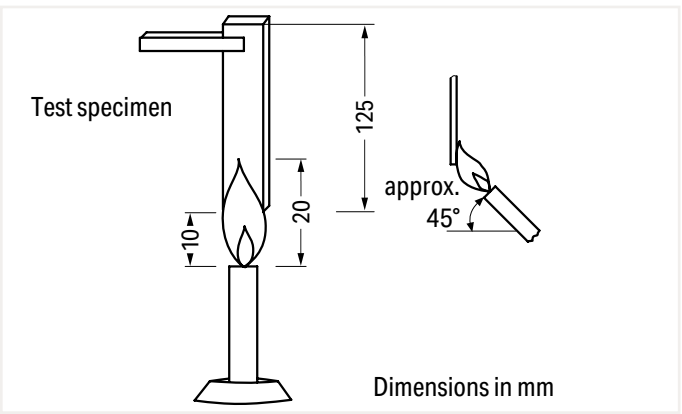
This test provides an indication of the material's ability to extinguish a flame, once ignited.
Several ratings can be applied, based on the rated of burning, time to extinguish, ability to resist dripping, and after-glow extinguishing time.
Each material tested may receive several ratings, depending on the wall thickness.

UL 94 Rating Categories:

V2
- Specimen mounted vertically
- Burning stops within 30 seconds after the flame is removed
- Flaming drips allowed
- After-glow extinguishes within 60 seconds max.

V1
- Specimen mounted vertically
- Burning stops within 30 seconds after the flame is removed
- No flaming drips allowed
- After-glow extinguishes within 60 seconds max.

V0
- Specimen mounted vertically
- Burning stops within 10 seconds after the flame is removed
- No flaming drips allowed
- After-glow extinguishes within 30 seconds max.



During the test, a 3/4 inch (20 ±1 mm) flame is applied for two 10-second intervals to the specified bar specimen held vertically.

“Alu-Plus” Contact Paste
Terminating Aluminum Conductors

Terminating Aluminum Conductors
WAGO spring clamp terminal blocks are suitable for solid aluminum conductors ❶ up to 4 mm²/12 AWG if WAGO “Alu-Plus” Contact Paste is used for termination.

Advantages of the “Alu-Plus” Contact Paste:
- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

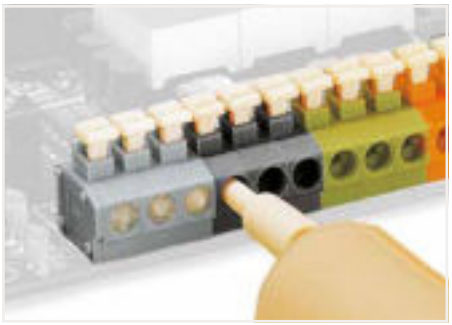
Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately be inserted into the clamping units filled with “Alu-Plus” Contact Paste.

It is also possible to apply WAGO “Alu-Plus” **additionally** on the whole surface of the aluminum conductor before termination.

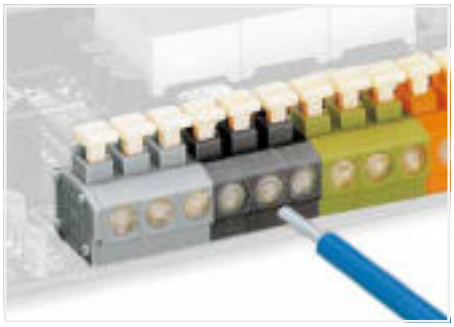
Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:

2.5 mm² (14 AWG) = 16 A
4 mm² (12 AWG) = 22 A

WAGO “Alu-Plus” in the syringe offers a higher degree of reliability and cleanness when terminating solid aluminum conductors.
Filling is, for example, quickly performed on WAGO PCB Terminal Trips:



WAGO Lighting Connectors
Push nozzle of the “Alu-Plus” syringe first into the circular entry and then into the square conductor entry hole of the WAGO Lighting Connector.



Press plunger down until the “Alu-Plus” has filled both entry holes.

Note: Not suitable for higher temperature applications!

❶ Aluminum conductors per IEC 61545 standard, Class B, “Alloy 1370” with 90 … 180 N/mm² tensile strength and 1 … 4% elongation
Standard values: 90 … 180 MPa tensile strength, 1 … 4% elongation (per EN 615.4.1)

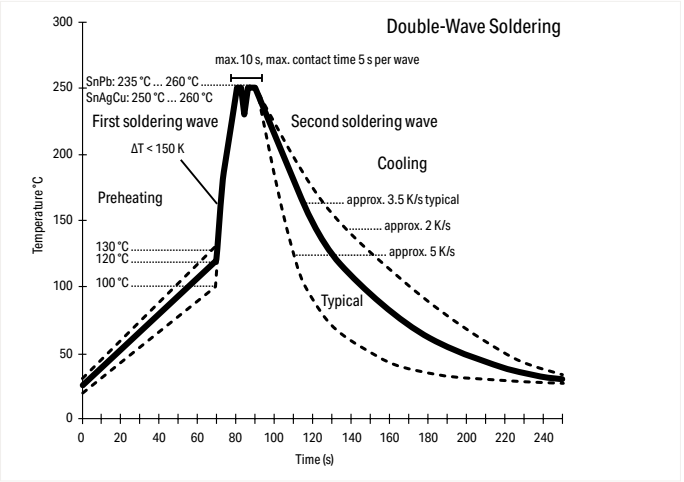
Material Specifications

Soldering Information

Wave Soldering

WAGO's PCB terminal blocks and connectors comply with the 2011/65/EU Directive of June 8, 2011 and display the "RoHS compliant" logo on their packaging.

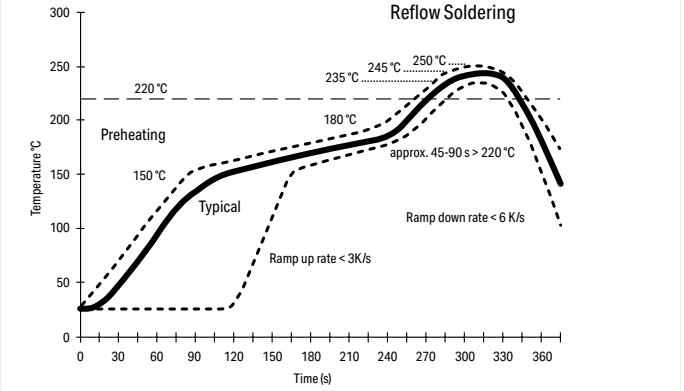
In accordance with IEC 61760-1, the maximum double-wave soldering temperature is 260°C (500°F) for a maximum 10 seconds or 5 seconds per wave.



Reflow Soldering

WAGO's THR and SMD PCB terminal blocks and connectors have high-temperature-resistant insulated housings and reflow solder contacts.

In accordance with IEC 61760-1 or IEC 60068-2-58, the maximum soldering temperature is 260°C/500°F (peak temperature). Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.



Insulation Materials

WAGO primarily uses polyamide (PA 66 and PA 46) for housing current-conducting parts, as well as polyphthalamide (PPA) and polycarbonate (PC) for insulation material (see table). For more than 50 years, these materials have proven themselves in WAGO products and all are approved by certified, third-party agencies. All listed halogen-free and flame-retardant polymer materials do not contain any heavy metals, silicone, asbestos, or formaldehyde as formulation components.

Table: Standard Insulation Materials

Material	PA 66	PA 66 GF	PPA GF	PA 46	PC	PC
Flammability UL 94 flammability test ratings	V0	V0	V0	V2	V2	V0
Oxygen Index (OI) per EN ISO 4589-2	> 32 %	> 33 %	> 37 %	> 27 %	> 26 %	> 35 %
Glow-wire test per IEC 60695-2-12 GWFI* IEC 60695-2-13 GWIT*	 850 °C 775 °C	 850 °C 775 °C	 850 °C 775 °C	 750 °C 725 °C	 800 °C 850 °C	 960 °C 850 °C
Comparative Tracking Index (CTI) per IEC 60112	600 V	600 V	600 V	375 V	225 V	225 V
Temperature of the ball indentation hardness test per IEC 60695-10-2	≥ 125 °C	≥ 175 °C	≥ 225 °C	n.s.**	≥ 125 °C	≥ 125 °C
RTI impact per UL 746B	105 °C	100 °C	115 °C	115 °C	125 °C	120 °C
Heat deflection temperature (HDT/B) per ISO 75 (bending stress A*: 1.8 MPa; B: 0.45 MPa)	215 °C	235 °C	285 °C	280 °C	130 °C (1.8 MPa)	130 °C (1.8 MPa)
Surface resistivity per IEC 60093	10^{12} Ω	10^{12} Ω	10^{15} Ω	10^{13} Ω	10^{15} Ω	10^{15} Ω
Specific contact resistance per IEC 60093	10^{15} Ω/cm	10^{15} Ω/cm	10^{13} Ω/cm	10^{13} Ω/cm	10^{11} Ω/cm	10^{13} Ω/cm
Dielectric strength per IEC 60243-1	30 kV/mm	40 kV/mm	25 kV/mm	25 kV/mm	25 kV/mm	29 kV/mm

*Value depends on wall thickness, EN 60335 compliance upon request; **n. s. = not specified

Polyamide (PA 66)
WAGO uses modified, halogen-free, flame-retardant polyamides.

These materials do not corrode, are difficult to ignite and feature self-extinguishing properties (V0 rating per UL 94).

Adhering to UL 746C, the polyamides used at WAGO have a continuous operating temperature of 105°C (221°F) based on the relative temperature index with impact load (RTIimp). This ensures that the necessary electrical and mechanical insulating properties are maintained at a sufficiently guaranteed level over a long period of time.

The short-term upper temperature limit is 200°C (392°F).

In lower temperature ranges, it has been determined that no damage to the insulation material occurs during usage down to −35°C (−31°F). After installation and wiring, WAGO products can even be used at temperatures down to −60°C (−76°F).

Environmental humidity (up to 2.5% in a standard atmosphere) is absorbed, providing the polyamides with optimum elasticity, strength and durability.

In practical use, basic stabilization of WAGO's polyamides has been proven over many years to be sufficient to prevent damage caused by ozone or UV radiation exposure in intended applications.

Polyamides have excellent resilience against the most demanding climates and have proven themselves in tropical applications worldwide. Insulation parts made of polyamide are resistant to insects. The material does not provide oxygen or other biogenic elements to microorganisms.

The presence of anaerobic earth bacteria, mold, fungus and enzymes does not degrade the material.

Polyamides are resistant to most fuels, greases, and oils, as well as the most commonly used cleaners, such as alcohol, Freon, Frigen, and carbon tetrachloride. Acid resistance depends on the acid type and concentration, as well as the exposure time.

The use of insulation materials during in-house production at WAGO only occurs after acceptance of factory test certificates and specified material tests.

Glass Fiber-Reinforced Polyamide (PA 66 GF)
WAGO uses glass-fiber-reinforced polyamides for components with increased mechanical demands, such as levers, push-buttons or housings exposed to high stress, because they have significantly better mechanical characteristic properties than non-reinforced polyamides.

In general, materials are used that have excellent tracking resistance, flammability ratings and high temperature resistance.

More data can be found in the table.

Polyphthalamide (PPA GF)
Glass-fiber-reinforced, high-performance polyamides are ideal for high-temperature applications, due to the material's high level of thermal dimensional stability, its low dependence on ambient conditions and its excellent strength properties. The material's outstanding tracking resistance permits short creepage distances to be incorporated into miniature components. Fire protection equipment enables classification in flammability class V0 per UL 94 – even for extremely thin walls. PPA GF absorbs minute amounts of moisture from the atmosphere making it ideal for reflow soldering applications and for thin-walled, dimensionally stable components.

More data can be found in the table.

Polyamide (PA 46)
In comparison with PA 66, PA 46 has substantially higher dimensional stability under heat. The relative temperature index with impact load (RTIimp) is 115°C (239°F) for PA 4.6. The permissible short-term temperature for the type used by WAGO is 280°C (536°F).

More data can be found in the table.

Polycarbonate (PC)
Polycarbonate has excellent dimensional stability under heat. The electrical and mechanical properties remain intact at extremely high temperatures up to approximately 120°C (248°F) per UL Yellow Card. Its excellent electrical insulating properties and dimensional stability are virtually independent of environmental conditions, such as humidity and temperature. Highly precise components can be created due to the low shrinkage of the material during injection molding. Polycarbonate has excellent weather resistance and is also highly resistant to high energy radiation.
If the PC is not colored, then the components are glass-clear.
Thanks to its desirable properties (e.g., dimensional stability, heat resistance, non-flammability, durability and transparency), PC is a proven and widely used material in the electrical industry.

Depending on the demands placed on the finished product, WAGO uses polycarbonates that carry flammability classifications V2 and V0 per UL 94.

Medium-viscosity PC is used that features excellent chemical resistance.

Material Specifications

Contact Materials

Hard and extra-hard electrolytic copper (ECu), as well as extra-hard copper alloys are the standard materials used for the current-carrying parts of all WAGO products.

These materials combine excellent conductivity and good chemical resistance without the risk of stress-induced cracking.

Contact Materials

The special tin layer, which is the standard layer for all current-carrying parts in WAGO products, ensures perfect long-term protection against corrosive substances. Furthermore, these layers provide a gas-tight contact that ensures a durable transition resistance.

At the clamping unit, the conductor is embedded into the soft tin layer via high contact pressure. This protects the contact area against corrosion.

The thick tin layer also ensures good solderability of both PCB terminal block and connector solder pins.

Clamping Spring Material

Every WAGO clamping spring is made of high-quality, accurately tested austenitic chrome nickel steel (CrNi) with high tensile strength, which boasts proven corrosion resistance through long-term usage.

It is resistant to sea spray, city pollutants and industrial emissions (e.g., sulfur dioxide, hydrogen sulfide).

At room temperatures of approximately 20°C (68°F), the material is resistant to salt solutions up to 30% and dilute phosphoric acids up to 30%.

Even after decades of use, no galvanic corrosion between the chrome nickel spring steel (in connection with the contact materials used by WAGO) and the connected copper conductors has been detected.

The relaxation of the material as a function of time and surrounding temperatures up to 105°C (221°F) can be ignored. Samples loaded with 500 N/mm² at a temperature of 250°C (482°F) showed a relaxation of only 1.5%.

In certain product lines, the clamping springs are thermally treated at temperatures between 350°C (662°F) and 420°C (788°F) after production.

This treatment reduces internal stress due to the material's mechanical deformation, which may result in a slight brown discoloration of the spring surface.

WAGO only accepts deliveries of chrome nickel spring steel against certificates of conformity and after select material tests have been performed.

Table 1: General Environmental Requirements for Storage, Transportation and Installation*

Environmental requirements during	Value range
Installation	-35 °C … +60 °C
Storage and transportation	-40 °C … +60 °C
Relative humidity (storage and transportation)	20 % … 95 % (non-condensing, no dew)

*These requirements apply to open and packaged products unless otherwise specified on the product at www.wago.com or on the catalog page.

General Technical Information on Electrical Equipment Used in Hazardous Areas

The formation of an explosive atmosphere is required for the existence of a potentially explosive hazard. Such an atmosphere can be produced at any location where flammable gases or liquids are manufactured, processed, transported and/or stored.
Such hazardous areas can be found in a wide range of industries, including chemical plants, refineries, power plants, paint production facilities, painting shops, filling stations, vehicles, sewage treatment plants, airports, grain mills or harbor facilities.

THE FOLLOWING APPLIES AS A GUIDELINE FOR THE UNDERLYING PRINCIPLE FOR EXPLOSION PROTECTION:

General Requirements
The European EN 60079-0 Standard – VDE 0170-1 Classification – contains general requirements for the design and testing of electrical equipment to be used in hazardous areas.
This ensures this equipment does not cause an explosion in the surrounding atmosphere. EN 60079-0 is supplemented or revised by the European standards indicated on the right which refer to the specifically standardized types of protection.

Electrical Equipment
Electrical equipment includes all items used in whole or in part with electricity. This includes items for generation, transport, distribution, storage, measurement, control, conversion and consumption of electrical power, as well as telecommunications.

Ex Components
Ex components are elements of electrical equipment for hazardous areas that are marked with the "U" letter. These components must not be used on their own in such areas and require an additional certificate when used in such areas when installed in the electrical equipment.

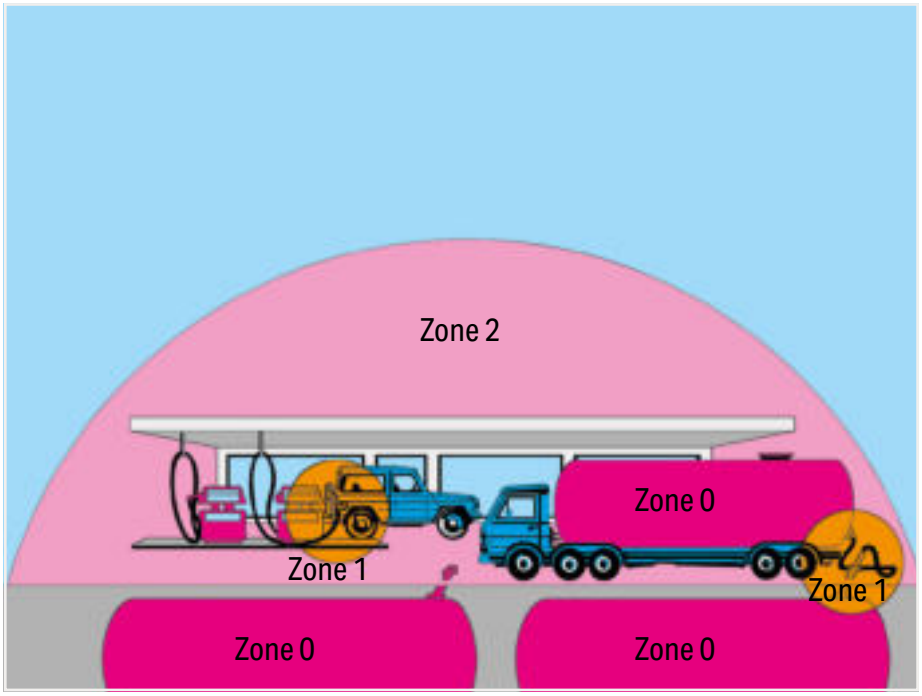
Ignition Protection Categories
Only explosion-proof (protected) equipment must be used in areas in which an explosive atmosphere may still be expected despite the implementation of prevention measures. Explosion-protected electrical equipment can have various types of protection in accordance with the EN 60079 standard requirements.
Protection used by the manufacturer essentially depends on the type and function of the apparatus. From a safety point of view, all standardized types of protection should be viewed as equal.
The ignition protection category "n" exclusively describes the use of explosion-protected electrical components in Zone 2. This zone includes areas in which hazardous, potentially explosive atmospheres are likely to occur rarely or short-term. This represents a transition between Zone 1, in which explosion protection is required, and the safe area in which, for example, welding may be performed at any time.
Regulations covering these electrical components are being prepared worldwide. Organizations such as KEMA in the Netherlands, or PTB in Germany certify that the devices meet the requirements of the EN 60079-15 standard.
Ignition protection category "n" also requires that electrical equipment be provided with additional ID markings as follows:
- nA – non-sparking
- nC – enclosed-break, hermetically sealed, non-incendive, sealed
- nR – restricted-breathing

The table on the opposite page shows an overview of the standardized ignition protection categories and describes their basic principle, as well as typical applications.

General Technical Information on Electrical Equipment Used in Hazardous Areas
Continued

Harzardous Areas
Hazardous areas are zones in which the atmosphere may become explosive. An explosive atmosphere is a mixture of flammable substances in the form of gases, vapors or mixtures with air under atmospheric conditions in critically mixed ratios such that excessive high temperature, arcs or sparks may cause an explosion.

EN 60079-10-1/EN 60079-10-2 and all other well-known standards rank hazardous areas according to the likelihood of the occurrence of an explosive atmosphere into the following zones:



Hazardous areas due to explosive gases, vapors and mists:

Zone 0

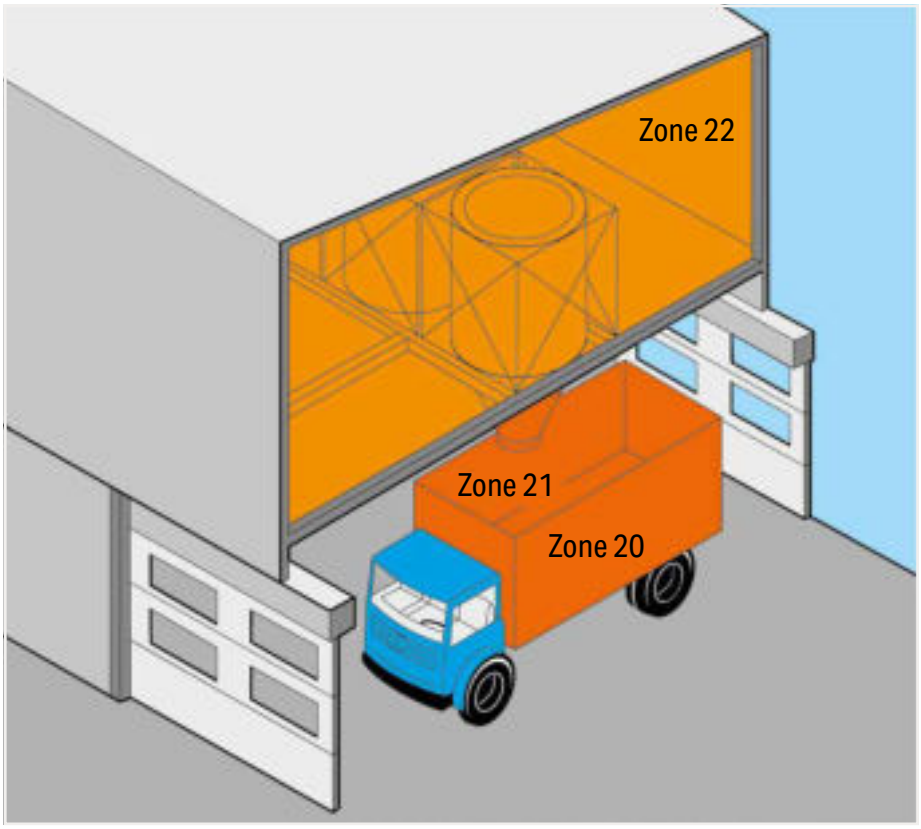
Area in which an explosive gas atmosphere is present continuously, for long periods or frequently.

Zone 1

Area in which an explosive gas atmosphere is likely to occur periodically or occasionally during normal operation.

Zone 2

Area in which an explosive gas atmosphere is unlikely to occur during normal operation; if it does occur, then it is temporarily.



Hazardous areas due to explosive dust/air mixtures:

Zone 20

Area in which an explosive dust atmosphere due to dust/air mixtures is present continuously, for long periods or frequently.

Zone 21

Area in which an explosive dust atmosphere due to dust/air mixtures is likely to occur occasionally during normal operation.

Zone 22

Area in which an explosive dust atmosphere due to flammable dust/air mixtures is unlikely to occur during normal operation; but if it occurs, then only for a short period of time.

EN 60079-0 also classifies electrical equipment for use in hazardous areas into two groups:

Group I:
Electrical equipment for mines susceptible to firedamp

Group II:
Electrical equipment for hazardous areas, except for mines susceptible to firedamp.

As this broad application range encompasses a large number of potentially flammable gases, Group II is broken down into subgroups IIA, IIB and IIC.
This breakdown is based on different gases/materials exhibiting differing ignition power levels as parameters. Therefore, representative gases have been allocated to these three sub-groups:
- IIA – Propane
- IIB – Ethylene
- IIC – Hydrogen

WAGO's terminal blocks can be used both in Group I and Group II.

This information is given under Item 12 in the EU Prototype Test Certificates, based on which the terminal blocks have been approved for Group I and Group II.

Temperature Class	Maximum Surface Temperature (°C)
T1	450
T2	300
T3	200
T4	135
T5	100
T6	85

Depending on the maximum surface temperature, electrical equipment in Group II are classified in temperature categories T1 to T6 for all protection types. The surrounding air temperature, which must be accounted for in dimensioning, is defined as 40°C/104°F (deviations are acceptable under some conditions).
Terminal blocks for "eb" (increased safety) protection type are generally assigned to temperature category T 6. When rail-mount terminal blocks are used in equipment of temperature categories T1 to T5, ensure that the highest temperature on the insulating parts does not exceed 85°C (185°F).
The highest measured surface temperature rise must not exceed 40 K.

Thermal resistance of the insulation material must be at least 20°C (68°F) greater than the highest operating temperature. Low temperature stability is considered to be sufficient when the insulation material can withstand 24-hour storage at a temperature of −60°C (−76°F) without nullifying the type of protection.

Special Requirements "Increased Safety Ex e"
The European EN 60079-7 Standard – VDE 0170-6 Classification – contains special requirements for the design and testing of electrical equipment with "eb" (increased safety) protection type for use in hazardous areas.
This standard is a supplement to EN 60079-0 and applies to equipment or parts thereof that neither generate sparks or arcing under normal operating conditions, nor exhibit hazardous temperatures.
This standard describes special measures, which have to be observed to obtain a safety degree according to the "eb" (increased safety) protection type.
Ex components such as rail-mount terminal blocks are covered by Section 4.2 "Terminal Blocks for External Conductors":
- The terminal blocks must be installed in an enclosure meeting the requirements of a recognized protection type per EN 60079-0, Section 1 or EN 60079-31.
- When installing the terminal blocks in an enclosure of protection type "eb" (increased safety) per EN 60079-7, the clearances and creepage distances of Table 2 must be observed. When using accessories, the installation instructions of the manufacturer must be observed.
- The terminal blocks can be used both in Group II and Group I, as the standard requirements are identical in this case.
- The use of this component requires a new assessment by a notified certification agency.

Minimum Ignition Power of Typical Gases:

Explosion Group	I	IIA	IIB	IIC
Gas	Methane	Propane	Ethylene	Hydrogen
Ignition Power	280	250	82	16

The following are the most important design requirements for terminal blocks for external supply conductors to electrical equipment:
These must:
- be sufficiently large to permit reliable connection of external supply conductors with cross section of at least the size required by the nominal current of the equipment
- be protected against self-loosening and designed such that the supply conductors cannot slip out of their clamping units
- be designed such that adequate contact pressure is ensured without damaging the conductors
- be designed such that their contact pressure does not change with temperature cycling
- be equipped with a spring connecting link for the connection of stranded conductors
- be designed so as to allow secure connection of smaller conductors for terminal blocks up to 4 mm² (12 AWG).

General Technical Information on Electrical Equipment Used in Hazardous Areas
Continued

Classification of insulation materials according to their tracking resistance is based on their Comparative Tracking Index (CTI) and is defined in Table 1 as follows:
This classification applies to insulating parts without ribs or grooves.
If the insulating parts have ribs or grooves sufficiently large to be considered, the minimum creepage distances must be set according to values for the insulation materials in the next-higher level (e.g., Group I, instead of Group II).
Accounting for the surrounding air temperature of 40°C (104°F) specified for electrical equipment, the current-carrying capacity of rubber-insulated conductors is reduced to 82%, based on DIN VDE 0298-4:2013-06, Table 12 and to 87% for PVC-insulated conductors for the current-carrying capacity defined for 30°C (86°F) in accordance with DIN VDE 0298-4:2013-06, Item 4.3.3.

It is expressly prohibited to use insulating parts for transferring contact forces. Terminal blocks with sharp edges which could damage supply lines and those types that can be rotated, turned or permanently deformed when fixed in place are not permitted for use. Terminal blocks for internal connections in electrical equipment must not be subjected to excessive mechanical stress. These items must fulfill the requirements for terminal blocks used for external supply conductors.
Clearances between conductive parts having different potentials must be at least 3 mm for external connections, as specified in Table 2. The value of the creepage distances depends on the working voltage, surface geometry of the insulating parts and tracking resistance of the insulation material.
Grooves on the surface may only be considered if they are at least 2.5 mm deep and wide; ribs on the surface only if their height is at least 2.5 mm and their width corresponds to the mechanical strength of the material, however not smaller than 1 mm.

Conductor Types and Conductor Preparation

In accordance with EN 60079-14/DIN VDE 0165-1, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient.
According to EN 60069-7/DIN VDE 0170-6, connecting electrical equipment to terminal blocks having an “eb” (increased safety) protection type must not lead to a reduction of the clearances and creepage distances.
Based on experience through the application of terminal blocks in aggressive atmospheres in the chemical industry, WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.

Table 1– Tracking Resistance for Insulation Materials

Material Group	Comparative Tracking Index
I	600 ≤ CTI
II	400 ≤ CTI < 600
III a	175 ≤ CTI < 400
III b	100 ≤ CTI < 175

Table 2– Minimum Creepage Distances/Clearances and Isolations

Voltage (see [a] and [b]) RMS Value for AC or DC Voltage V	Minimum Creepage Distance mm								Minimum Clearance and Isolations mm		
	Material Group								Clearance mm		Distance under Coating[d]
	I		II		III a		III b				
	“eb”	“ec”	“eb”	“ec”	“eb”	“ec”	“eb”	“ec”	“eb”	“ec”	“ec”
≤ 10 (see [c])	1.6	1	1.6	1	1.6	1	–	1	1.6	0.4	0.3
≤ 12.5	1.6	1.05	1.6	1.05	1.6	1.05	–	1.05	1.6	0.4	0.3
≤ 16	1.6	1.1	1.6	1.1	1.6	1.1	–	1.1	1.6	0.8	0.3
≤ 20	1.6	1.2	1.6	1.2	1.6	1.2	–	1.2	1.6	0.8	0.3
≤ 25	1.7	1.25	1.7	1.25	1.7	1.25	–	1.25	1.7	0.8	0.3
≤ 32	1.8	1.3	1.8	1.3	1.8	1.3	–	1.3	1.8	0.8	0.3
≤ 40	1.9	1.4	2.4	1.6	3	1.8	–	1.8	1.9	0.8	0.6
≤ 50	2.1	1.5	2.6	1.7	3.4	1.9	–	1.9	2.1	0.8	0.6
≤ 63	2.1	1.6	2.6	1.8	3.4	2	–	2	2.1	0.8	0.6
≤ 80	2.2	1.7	2.8	1.9	3.6	2.1	–	2.1	2.2	0.8	0.8
≤ 100	2.4	1.8	3	2	3.8	2.2	–	2.2	2.4	0.8	0.8
≤ 125	2.5	1.9	3.2	2.1	4	2.4	–	2.4	2.5	1	0.8
≤ 160	3.2	2	4	2.2	5	2.5	–	2.5	3.2	1.5	1.1
≤ 200	4	2.5	5	2.8	6.3	3.2	–	3.2	4	2	1.7
≤ 250	5	3.2	6.3	3.6	8	4	–	4	5	2.5	1.7
≤ 320	6.3	4	8	4.5	10	5	–	5	6	3	2.4
≤ 400	8	5	10	5.6	12.5	6.3	–	6.3	6	4	2.4
≤ 500	10	6.3	12.5	7.1	16	8	–	8	8	5	2.4
≤ 630	12	8	16	9	20	10	–	10	10	5.5	2.9
≤ 800	16	10	20	11	25	12.5	–	–	12	7	4
≤ 1000	20	11	25	11	32	13	–	–	14	8	5.8
≤ 1250	22	12	26	12	32	15	–	–	18	10	–
≤ 1600	23	13	27	13	32	17	–	–	20	12	–
≤ 2000	25	14	28	14	32	20	–	–	23	14	–
≤ 2500	32	18	36	18	40	25	–	–	29	18	–
≤ 3200	40	22	45	22	50	32	–	–	36	22	–
≤ 4000	50	28	56	28	63	40	–	–	44	28	–
≤ 5000	63	36	71	36	80	50	–	–	50	36	–
≤ 6300	80	45	90	45	100	63	–	–	60	45	–
≤ 8000	100	56	110	56	125	80	–	–	80	56	–
≤ 10000	125	71	140	71	160	100	–	–	100	70	–
≤ 12500	–	90	–	90	–	125	–	–	–	89	–
≤ 13640	–	98	–	98	–	138	–	–	–	97	–

[a] When determining the required values for creepage distances and clearances, the working voltage may be 1.1 times higher than the value in the table.
NOTE: The factor of 1.1 takes into account that in many places in a circuit the working voltage is equal to the rated voltage and that a number of rated voltages are used, which are covered by a factor of 1.1.
[b] The specified values for creepage distances and clearances already take into account a 10% tolerance for the highest supply voltage. Therefore, further considerations on the voltage fluctuations are unnecessary for determining which voltage value from the table should be used.
[c] CTI values are not applicable for voltages of 10 V or less. Materials that do not meet the requirements of material group III a can be used.
[d] The specified distances under consideration apply to printed circuit boards in protection level “ec” after 4.5.

Approvals

Terminal blocks may be used in Zones 1 and 2, provided that the terminal blocks are accommodated in an enclosure that has a minimum IP54 protection and an Ex e certification.
Terminal blocks are considered to be Ex components because they are a part of the equipment. Part certificates provided by Ex Certification Agencies serve as a basis for issuing the complete conformity declaration for the unit.
An EC-type examination certificate is issued in accordance with the 2014/34/EU ATEX Directive.
In addition, an IEXEx Certificate may also be obtained from an appropriate, recognized certification agency in accordance with the IECEx Certification Agreement that is accepted throughout Europe and also in countries such as Canada, China and Australia.
These certificates can also be viewed at: www.iecex.com.

EC-type examination certificates have been granted to all WAGO terminal blocks listed in this catalog.
WAGO terminal blocks approved for use in Ex e II areas are manufactured of flame-resistant, self-extinguishing Polyamide 66. The same applies to the terminal blocks used in non-hazardous areas. Tracking resistance with a CTI value of 600 as per IEC 60112 and a constant operating temperature of 105°C (22°F) in accordance with IEC 60216-1 and -2 are provided.
Factory part quality tests are performed on all PCB terminal blocks with Ex e II approval to monitor and ensure the quality features described above.

Terminal block marking per 2014/34/EU ATEX Directive:

⟨Ex⟩	II	2	G	Ex eb IIC	Gb

Explosion prevention marking

Group II (for equipment used in areas in which an explosive atmosphere might occur)

Category 2 (high safety, equipment used in areas [zones] in which a potentially explosive atmosphere occurs only occasionally. Explosion protection must continue to be provided even in the event of frequent device faults.)

Gases

Explosion protection in Europe, "increased safety" protection type, Group II

Level of equipment protection
(Device with "high" protection level for use in areas where there is a potential risk of explosion where there is no risk of ignition resulting from predictable or faults/malfunctions.)

or

⟨Ex⟩	I	M 2	Ex eb I	Mb

Explosion prevention marking

Group I (for equipment used in underground applications)

Mining applications

Explosion protection in Europe, "increased safety" protection type, Group I

Level of equipment protection
(Device with "high" protection level for installing in mines that are susceptible to firedamp, that guarantee the required measure of safety, where there is no risk of ignition resulting from predictable faults/malfunctions during normal operation in the time between the gas escaping and switching off the device.)

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

Ex COMPONENT CERTIFICATE

EU-Baumusterprüfbescheinigung

PTB 18 ATEX 1005 U Ausgabe: 0

General Technical Information on Electrical Equipment Used in Hazardous Areas
Continued

Special Requirements
Equipment Protection by Intrinsic Safety "i"
The European EN 60079-11 Standard – Classification VDE 0170-7 – contains special requirements for the design and testing of electrical equipment with "i" (intrinsic safety) protection type for use in hazardous areas.

A circuit is "intrinsically safe" when, under normal operating conditions and in the event of specific fault conditions, no sparks or thermal effects can occur and cause the ignition of a certain explosive atmosphere.

A distinction is made here between:
- intrinsically safe electrical equipment when all circuits are intrinsically safe
- associated electrical equipment including both intrinsically and non-intrinsically safe circuits, and being designed such that the non-intrinsically safe circuits cannot affect the intrinsically safe ones.

Intrinsically safe electrical equipment and intrinsically safe parts of associated electrical equipment are classified at "ia", "ib" or "ic" protection level.
Electrical equipment classified Ex "ia" must not ignite when current is applied in the following cases:
a) During fault-free operation, with those non-discreet faults present that result in the most adverse condition
b) During fault-free operation and with a discreet fault, plus those non-discreet faults that result in unfavorable conditions
c) During fault-free operation with two discreet faults, plus those non-discreet faults that result in the most adverse conditions.

Electrical equipment classified Ex "ib" must not ignite when current is applied in the following cases:
a) During fault-free operation, with those non-discreet faults present that result in the most adverse condition;
b) During fault-free operation and with a discreet fault, plus those non-discreet faults that result in unfavorable conditions.
At applied voltages, the intrinsically safe circuits in electrical equipment of protection level "ic" shall not be capable of causing ignition during undisturbed operation and under the conditions specified in this standard.
No special approval is required for terminal blocks used as simple electrical equipment for "Ex i" protection type, as they do not contain a voltage source and precise information is available concerning electrical data and temperature rise performance.
The terminal blocks must be identifiable, for example by their type designation, and the following design requirements must also be upheld:
Clearances and creepage distances between bare conductive parts of terminal blocks of separate intrinsically safe circuits and grounded or floating conductive parts shall be equal to or greater than the values given in Table 5 (see 654). If separate intrinsically safe circuits are to be considered, the air gap between bare conductive parts of the outer connection parts must meet the following requirements:
– at least 6 mm between the separate intrinsically safe circuits
– at least 3 mm from grounded parts, if a possible connection to ground has not been considered in the safety analysis. Each possible motion of metallic parts that are not rigidly secured must be considered.
Terminal block marking must be unique and clearly visible. If a color is used for this, the color must be light blue (similar to RAL 5015).
Note also when using terminal blocks:
Terminal blocks used for intrinsically safe circuits must be isolated from those used in non-intrinsically safe circuits. This is accomplished by several accepted methods. First, intrinsically safe circuits are separated by at least 50 mm of air space from non-intrinsically safe circuits.

Second, intrinsically safe circuits are housed in a separate enclosure. Third, intrinsically safe terminal blocks are separated from non-intrinsically safe terminal blocks by either an insulated partition or grounded metal partition. The partition size must allow for either 1.5 mm or less distance from the sides of the housing or provide at least 50 mm of creepage distance between the intrinsically and non-intrinsically safe circuits in all directions.
The insulation between an intrinsically safe and a non-intrinsically safe circuit has to withstand an effective AC voltage of 2 x nominal value (U) 1000 V or a minimum of 1500 kV, whereby U represents the total of the effective voltages of the intrinsically safe and the non-intrinsically safe circuit.
Short circuit between different intrinsically safe circuits could cause dangerous conditions. The insulation between these circuits should withstand an effective voltage of at least 500 VAC or 2 UAC where U is the total of the effective voltages of the related circuits.
In accordance with EN 60079-14/ DIN VDE 0165-1, in intrinsically safe circuits, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient.
WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.

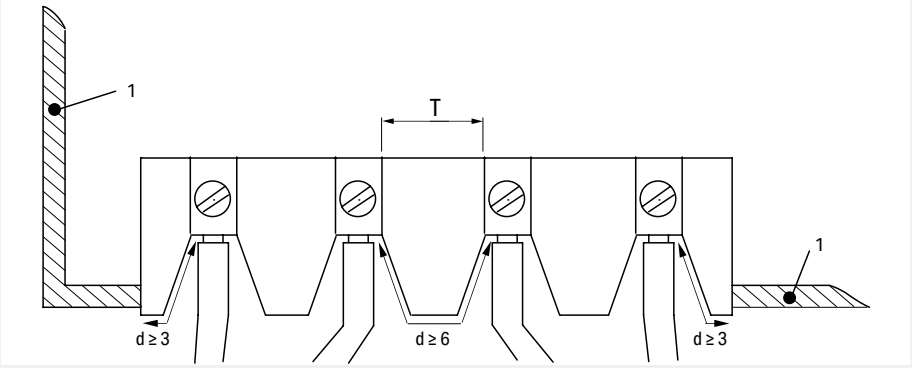
Requirements pertaining to the necessary distances as appropriate for use of the terminal blocks in the area DIN EN 60079-11 (VDE 0170-7) "Explosive atmosphere – Part 11: Device protection by intrinsically safe features "i" (IEC 60079-11)" are defined under Section 6.2 "Connecting point for external circuits," Section 6.2.1 "Terminal blocks." In general, the following can be stated for terminal blocks based on figure 1: "Example of isolated intrinsically safe terminal blocks with partition" in conjunction with figure 2: "Example of isolation of conductive parts," considering Table 5 – "Clearances, Creepage and Isolation Distances."

Outside:
a) Isolated intrinsically safe circuits: at least 6 mm
All PCB terminal blocks listed on the ordering pages as suitable for Ex "i" applications fulfill these requirements.
b) Intrinsically safe circuits and normal circuits (non-intrinsically safe): ≥ 50 mm

Inside:
a) Ex "i" to Ex "i"
b) Ex "i" to normal circuits
c) Ex "i" to ground
Based on Figure 2 and Table 5 (see next page) in accordance with the selected protection level and the special requirements for isolation distances as described in Sections 6.3.1 to 6.3.13, or in accordance with the alternative procedure for dimensioning of isolation distances given in Annex F.

Terminal blocks with smaller pin spacing may also be used for internal connections, provided they meet the requirements laid out in Table 5 (see below).

The exact clearances and creepage distances as well as separation distances based on Table 5 must be derived from the application items cited above.



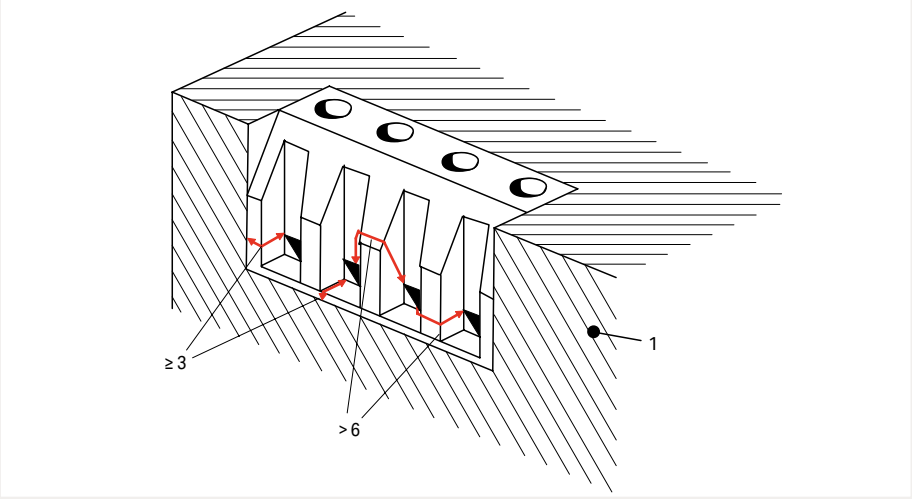


Figure 1a: Requirements for clearances and creepage distances for terminal blocks with isolated, intrinsically safe circuits

Legend:

1	Conductive cover
T	Distances based on Table 5
d	Distance at outer connecting parts of the terminal blocks according to 6.2.1

Note:
The dimensions indicated here represent the clearances and creepage distances around the insulation and not the thickness of the insulation.

Dimensions in mm

General Technical Information on Electrical Equipment Used in Hazardous Areas
Continued

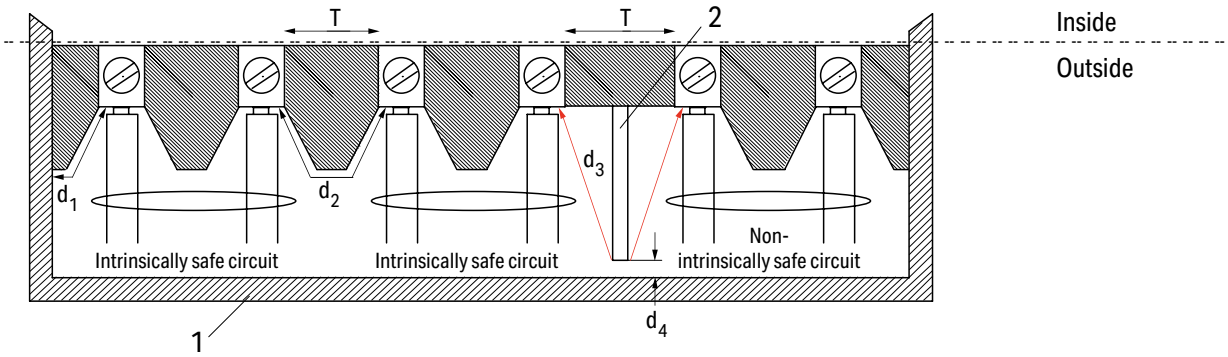


Figure 1b: Example of isolated intrinsically safe and non-intrinsically safe terminal blocks by a partition

Legend:

1 Cover: non-conductive or conductive and grounded

2 Partition based on 6.2.1 b); in this example, the partition must end at the base

T Distances based on Table 5

d1 ≥ 3 mm, when the cover is conductive and grounded

d2 ≥ 6 mm

d3 ≥ 50 mm or d4 ≤ 1.5 mm

Note:
The dimensions indicated here represent the clearances around the insulation and not the thickness of the insulation.

Table 5 – Clearances, Creepage and Isolation Distances

1	2		3		4		5		6		7	
Voltage (Peak) (V)	Clearance (in mm)		Separation by Encapsulation (in mm)		Separation by Fixed Insulation (in mm)		Creepage Distance through Air (in mm)		Creepage Distance beneath Protective Layer (in mm)		Comparative Tracking Index (CTI)	
Protection Level	ia, ib	ic	ia, ib	ic	ia, ib	ic	ia, ib	ic	ia, ib	ic	ia	ib, ic
10	1.5	0.4	0.5	0.2	0.5	0.2	1.5	1.0	0.5	0.3	--	
30	2.0	0.8	0.7	0.2	0.5	0.2	2.0	1.3	0.7	0.3	100	100
60	3.0	0.8	1.0	0.3	0.5	0.3	3.0	1.9	1.0	0.6	100	100
90	4.0	0.8	1.3	0.3	0.7	0.3	4.0	2.1	1.3	0.6	100	100
190	5.0	1.5	1.7	0.6	0.8	0.6	8.0	2.5	2.6	1.1	175	175
375	6.0	2.5	2.0	0.6	1.0	0.6	10.0	4.0	3.3	1.7	175	175
550	7.0	4.0	2.4	0.8	1.2	0.8	15.0	6.3	5.0	2.4	275	175
750	8.0	5.0	2.7	0.9	1.4	0.9	18.0	10.0	6.0	2.9	275	175
1000	10.0	7.0	3.3	1.1	1.7	1.1	25.0	12.5	8.3	4.0	275	175
1300	14.0	8.0	4.6	1.7	2.3	1.7	36.0	13.0	12.0	5.8	275	175
1575	16.0	10.0	5.3	*	2.7	*	49.0	15.0	16.3	*	275	175
3.3k	*	18.0	9.0	*	4.5	*	*	32.0	*	*	*	*
4.7k	*	22.0	12.0	*	6.0	*	*	50.0	*	*	*	*
9.5k	*	45.0	20.0	*	10.0	*	*	100.0	*	*	*	*
15.6k	*	70.0	33.0	*	16.5	*	*	150.0	*	*	*	*

Note 1: *At present, no values have been recommended for these voltages.

Note 2: Proof of fulfillment of the CTI requirements for the insulating materials must be provided by the manufacturer.
Defining a CTI is not required for insulation materials for voltage levels up to 10 V.

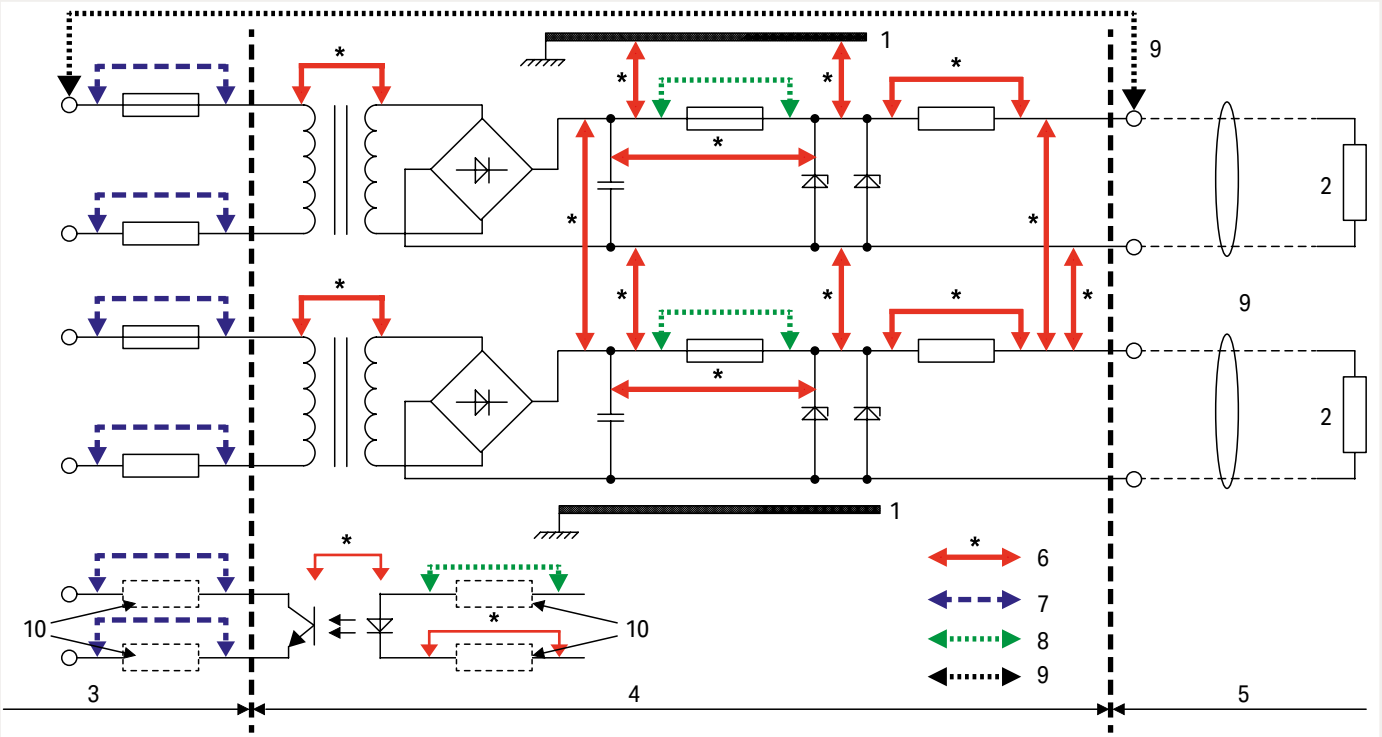


Figure 2: Isolation examples for conductive parts

Legend:

1	Chassis
2	Load
3	Non-intrinsically safe circuit defined by Um
4	Portion of intrinsically safe circuit, item is not intrinsically safe
5	Intrinsically safe circuit
6	Dimensions for which Table 5 applies
7	Dimensions for which general industrial standards apply
8	Dimensions per 7.3
9	Dimensions based on 6.2.1 for output terminal blocks between isolated intrinsically safe circuits (d2 ≥ 6 mm) and between intrinsically safe circuits and non-intrinsically safe circuits (d3 ≥ 50 mm)
10	Where required

In accordance with DIN EN 60079-14 (VDE 0165-1), in intrinsically safe circuits, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient.
The conductor entry funnels of WAGO PCB terminal blocks fulfill this requirement.
WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.

International Certification Organizations – Overview

		Abbreviation
	Underwriters Laboratories USA http://www.ul.com	UL
	Underwriters Laboratories USA http://www.ul.com	UL
	Underwriters Laboratories USA http://www.ul.com	cURus
	Underwriters Laboratories USA http://www.ul.com	cULus
	Canadian Standards Association Canada http://www.csa.ca	CSA
VDE REG XXXX	VDE-Gutachten mit Fertigungsüberwachung Germany http://www.vde.de/vde/html/e/home.htm	VDE
	VDE – Deutscher Verband für Elektrotechnik Germany http://www.vde.de	
VDE	VDE – Prüfbericht Germany	
	Österreichischer Verband für Elektrotechnik Austria http://www.ove.at	ÖVE
	Schweizerischer Elektrotechnischer Verein Switzerland http://www.sev.ch/	SEV
KEMA KEUR	N.V. tot Keuring van Elektrotechnische Materialien Netherlands http://www.kema.nl	KEMA
CCA	CENELEC CERTIFICATION AGREEMENT N.V. tot Keuring van Elektrotechnische Materialien Netherlands http://www.cenelec.org	CCA Zul.-Nr. mit NL
	Norges Elektriske Materialkontroll Norway http://express.nemko.com	NEMKO
	Svenska Elektriska Materielkontrollanstalten AB Sweden http://www.semko.com	SEMKO

		Abbreviation
	Danmarks Elektriske Materielkontrol Denmark http://www.demko.dk	DEMKO
CCA	CENELEC CERTIFICATION AGREEMENT Danmarks Elektriske Materielkontrol Denmark http://www.cenelec.org	CCA Zul.-Nr. mit NL
	SETI – FEMKO Sähkötarkastuskeskus Elinspecktionscentralen Finland http://www.seti.fi	
	Sähkötarkastuskeskus Elinspecktionscentralen Finland http://www.fimko.com	FIMKO
SABS	South African Bureau of Standards South Africa http://www.sabs.co.za	SABS
	RosTesT Russia http://www.rostest.ru	ROTEST
	Departamentul Moldovastandard Moldova http://www.moldova.md/ro/government/oll/D_STAND/en/strcent2.htm	CSM
	Certificate of Registration Great Britain http://www.astacertification.com	ASTA
	Rheinisch-Westfälischer Technischer Überwachungsverein e.V. Germany http://www.rwtuv.de	RWTÜV
	Elektrotechnick´y v´yskumn´y a projektov´y ústav Czech Republic http://www.ezu.cz	EZU
	Stowarzyszenie Elektrykow Polskich Poland http://www.sep.com.pl	BBJ
	Stowarzyszenie Elektrykow Polskich Poland http://www.bbj.pl	SEP

		Abbreviation
CNET	Centre National d'Etudes des Télécommunications France http://www.lannion.cnet.fr	CNET
LCIE	Laboratoire Central des Industries Electriques France http://www.lcie.fr	LCIE
	Fyzikálne Technick´yZkusební Ústav, Ostrava-Radvanice Czech Republic http://www.ftzu.cz	FTZU
Marine Approvals		
BV	Bureau Veritas France http://www.bureauveritas.fr	BV
	Lloyd's Register of Shipping Great Britain http://www.lloydsregister.com	LR
DNV · GL	NV – Det Norske Veritas Norway http://www.dnvgl.com	DNV-GL
	Russian Maritime Register of Shipping GUS http://www.rs-head.spb.ru	RMR
	Polski Rejestr Statków Poland http://www.prs.pl	PRS
	Korean Register of Shipping Korea http://www.krs.co.kr	KR
ABS	American Bureau of Shipping USA http://www.eagle.org	ABS

		Abbreviation
	Robbanásbiztos Villamos Berendezések Hungary http://www.bki.hu	BKI
CB	CB – TEST CERTIFICATE India http://www.ul-europe.com	CB
CB	CB – TEST CERTIFICATE China http://www.ul-europe.com	CB
	http://www.enec.com	ENEC
EX Approvals		
PTB	Physikalisch Technische Bundesanstalt Germany http://www.ptb.de	PTB
c US	Underwriters Laboratories USA http://www.ul.com	AEx

Electrical Engineering Laboratory
Product Safety for Our Customers

To use terminal blocks globally, they must satisfy certain standards and obtain test certificates. These requirements apply to every manufacturer. WAGO also conducts its own tests to increase standards and offer greater reliability with its products. Products undergo a full range of mechanical, electrical and climatic testing, and we'll share a few of those processes with you.

WAGO Test Lab

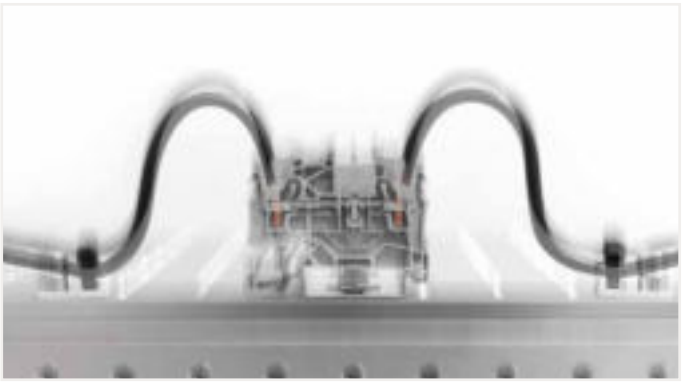
This means that WAGO's products can be used safely and reliably both in Europe and anywhere globally for a wide variety of applications. We heavily emphasize the importance of global acceptance during development. As a result, we can present documentation that verifies our high levels of product safety and reliability while ensuring the fulfillment and accuracy of technical data, which are the highest priorities for our customers and users worldwide.
On December 22, 2009, our test lab was accredited by the German Accreditation Association (Deutsche Gesellschaft für Akkreditierung GmbH) in accordance with DIN EN ISO/IEC 17025.

Pull-Out Test (per EN 60947-7-1, EN 60998-2-2)

During the pull-out force test, a conductor is pulled on until it is removed from the clamping unit. The design of the terminals means that extraction only occurs after the standard pull-out force has been exceeded many times over.

Vibration Test (per IEC/EN 60068-2-6)

Depending on the application, such as railway (per EN 61373) or marine (per GL, LR, DNV), there are various testing requirements to determine if the long-term effects of vibrations degrade electrical connections. The test specimen is subjected to different loads on three axes in an electrodynamic vibration system. The amplitude, the acceleration, and particularly the frequency of the vibration vary during the test. The test values are increased many times over the standard values to meet special customer requirements.



Shock Test (per IEC/EN 60068-2-27)

The shock test is very similar to the vibration test except that, instead of continuous vibrations, single shocks are applied to the test specimen. Shock tests are usually performed, for example, at an acceleration of 20g over a period of 11 ms. Tests for special requirements often call for much higher values and are also conducted in our laboratory..

Voltage Drop Test under Bending Stress (per WAGO test requirements)

The voltage drop test under bending stress simulates mechanical stress on the clamping unit. In everyday use, this stress can occur during installation, for example, when an electrician shoves connected conductors to the side in order to access a specific component. The quality of the clamping unit when moving a connected conductor can be validated by the constantly stable measured value of the voltage drop.

DAkkS
Deutsche
Akkreditierungsstelle

Deutsche Akkreditierungsstelle GmbH

Beliehene gemäß § 8 Absatz 1 AkkStelleG i.V.m. § 1 Absatz 1 AkkStelleGBV
Unterzeichnerin der Multilateralen Abkommen
von EA, ILAC und IAF zur gegenseitigen Anerkennung

Akkreditierung

Die Deutsche Akkreditierungsstelle GmbH bestätigt hiermit, dass das Prüflaboratorium

WAGO Kontakttechnik GmbH & Co. KG
Hansastraße 27, 32423 Minden

die Kompetenz nach DIN EN ISO/IEC 17025:2005 besitzt, Prüfungen in folgenden Bereichen durchzuführen:

Elektrische und mechanische Prüfungen an Klemmen und Steckverbinder sowie Umweltsimulation

Die Akkreditierungsurkunde gilt nur in Verbindung mit dem Bescheid vom 18.12.2014 mit der Akkreditierungsnummer D-PL-19704-01 und ist gültig bis 17.12.2019. Sie besteht aus diesem Deckblatt, der Rückseite des Deckblatts und der folgenden Anlage mit insgesamt 5 Seiten.

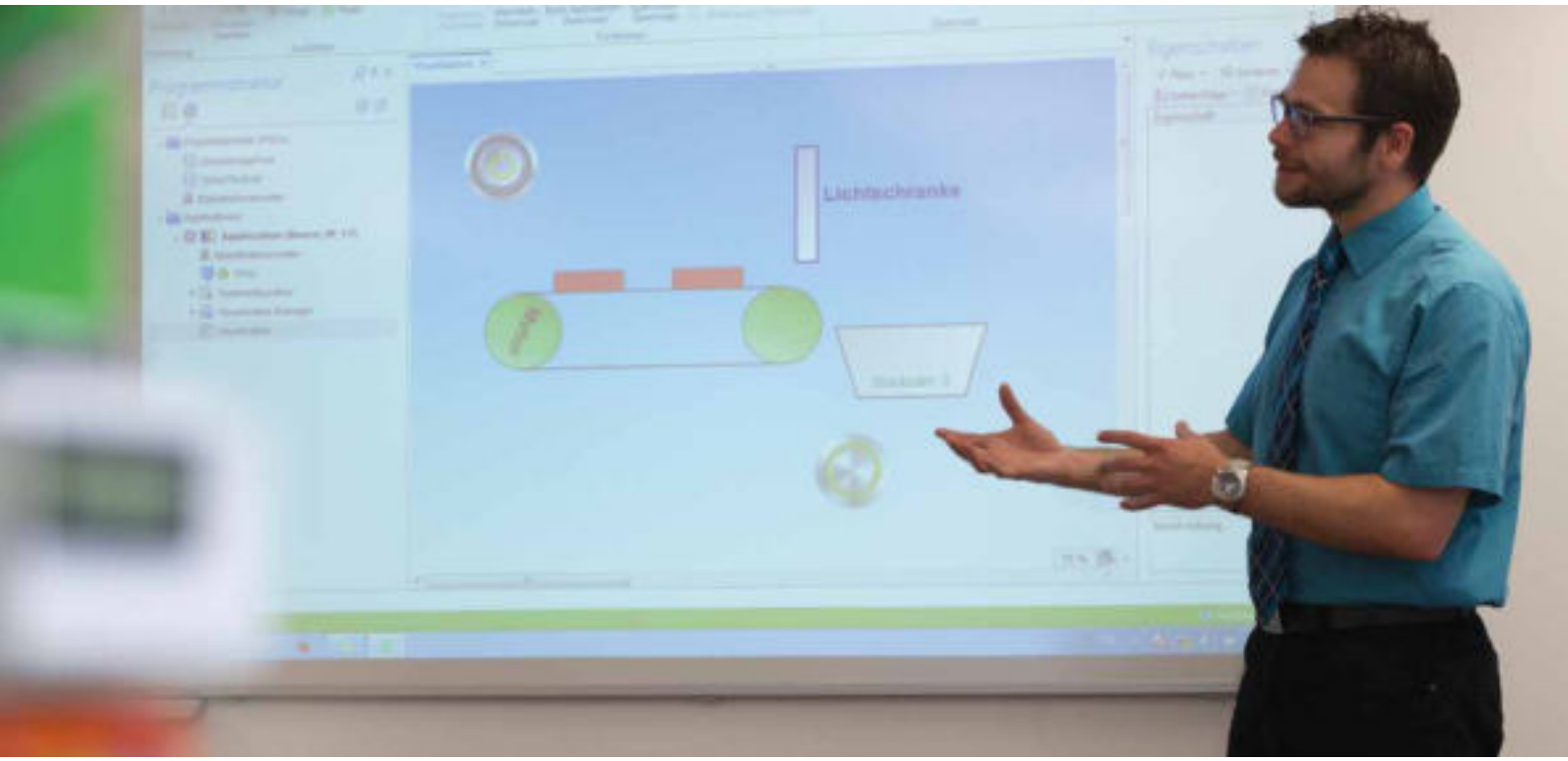
Registrierungsnummer der Urkunde: **D-PL-19704-01-00**

Frankfurt am Main, 18.12.2014

Im Auftrag Dipl.-Ing. (FH) Ralf Egner
Abteilungsleiter

Siehe Hinweise auf der Rückseite

WAGO-Seminars
Learn Today – Benefit Tomorrow



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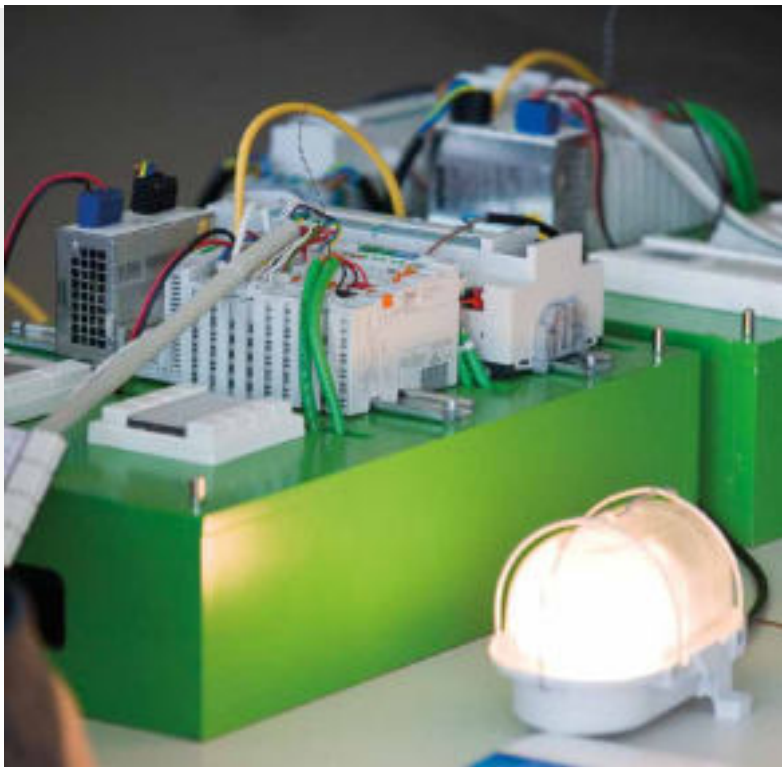

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- Programming of automation components
- Fieldbus systems

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Special Corporate Seminars

16

Index and Addresses

Index
Addresses

	Page
Product Index	940
Item Number Index	942
WAGO Worldwide	968

Product Index

Item Page

A
"Alu-Plus" contact paste 883
Angled female connectors
see *MULTI CONNECTION SYSTEM (MCS)*, 100 % protected against mismating, Classic/Standard version 564
Approvals 932

B
Bus coupler units, for EIB/KNX applications 847

C
Cable cutter 882
CE marking 890
Coding keys 352
Combi PCB terminal blocks 792
Combi strips 372
Comb-style jumper bars 547
Commoning strips, for PCB terminal strips 262
Compact PCB connectors 790
Connectors
- wire-tap branch; 3- and 6-pole (elevator shaft technology) 838
- for EIB/KNX applications 846
Crimping tools for ferrules 878
Current-carrying capacity curves
- PCB terminal blocks 20
- *MULTI CONNECTION SYSTEM* 340

D
Derating curves
see "Current-carrying capacity curves"
MULTI CONNECTION SYSTEM (MCS)
Direct marking
- MICRO 354
- MINI 420
- MIDI 548
- MAXI 784
Disconnection tool 872
Double-deck terminal strips, for PCBs 58
Double-pin male connectors
see *MULTI CONNECTION SYSTEM* MIDI

E
Electrical tests, environmental tests, mechanical tests, material tests 862

F
Felt-tip pen 862
Female connectors, see *MULTI CONNECTION SYSTEM*
Feedthrough terminal strips
- for PCBs 818
with threaded flanges
- MINI 361
- MIDI 616
in tape-and-reel packaging (THR)
- GDS 267
- *MCS* 348

H
High-current connectors 749
High-current PCB terminal blocks 147

I
IEC/EN specifications 892
Insulation stops 541

L
Lockout caps 541
Loss of pin spacing 561

M
Male headers for double-deck assembly, *MULTI CONNECTION SYSTEM (MCS)* 591
Male connectors/headers
MULTI CONNECTION SYSTEM 337
Marking
Marking accessories 864
Marking cards
- (Mini-WSB cards) for miniature WAGO Quick Marking System
- Self-adhesive strips, computer marked
- (WMB cards) for WAGO Multi-Marking System
- (WSB cards) for WAGO Quick Marking System 862
Marking strips, self-adhesive 864
Material specifications, for insulation materials, contact materials, contact plating 920
Mini-WSB Quick Marking System (marking cards) 862
Modular terminal blocks and terminal strips
see "Terminal blocks and terminal strips"
see "PCB terminal blocks"
Mounting flange, *MCS* MIDI
100 % protected against mismating
- 5 mm 463
- 7,5 mm 505
Mounting flange, *MCS* MIDI Classic
- 5 mm 562
- 5,08 mm 617
- 7,5 mm 652
- 7,62 mm 696
Mounting flange, *MCS* MINI
- 3,5 mm 366
- 3,81 mm 395
Multilevel PCB terminal strips, Double-, triple-, quadruple-deck terminal blocks 58
MULTI CONNECTION SYSTEM MICRO, 100 % protected against mismating, pin spacing:
- 2,5 mm 337
- 2,5 mm Reflow-Technik 348
MULTI CONNECTION SYSTEM MIDI, Pin spacing:
- 5 mm 560
- 5,08 mm 614
- 7,5 mm 652
- 7,62 mm 696
MULTI CONNECTION SYSTEM MINI, 100 % protected against mismating, pin spacing:
- 3,5 mm 360
- 3,5 mm, Reflow-Technik 386
- 3,81 mm 390
- 3,81 mm, Reflow-Technik 410
- MINI HD 425
- MINI SL 449
MULTI CONNECTION SYSTEM-**MIDI, accessories** 538

O
Operating levers 352
Operating stickers 867
Operating tools 870

P
PCB panel feedthrough headers
see *MULTI CONNECTION SYSTEM (MCS)*
Plugs for elevator shaft technology 838
PUSH WIRE® connection 216

Q
Quadruple-deck terminal blocks, for PCBs 74

R
Reel (THR)
- GDS 267
- *MCS* 349
Reflow soldering: PCB terminal blocks 268

S
Sales regions, worldwide 968
Screwdrivers
see "Operating tools"
Screw-type flanges
- MINI 361
- MIDI 616
Separators 352
SMD PCB terminal blocks 301
Snap-in mounting feet, *MCS* MIDI Classic
- 5 mm 563
- 5,08 mm 619
- 7,5 mm 655
- 7,62 mm 699
Snap-in mounting feet, *MCS* MIDI, 100 % protected against mismating
- 5 mm 482
- 7,5 mm 522
Solder pin strips 792
Specifications UL – Underwriters Laboratories, USA
- Tests and test procedures per UL standards 914
Strain relief housings
for *MCS* MINI 410
for *MCS* MIDI 540
Strain relief plates
for female and male connectors with CAGE CLAMP® connection for *MCS* MICRO 343
for *MCS* MINI 418
for *MCS* MIDI 544

T
Technical information
General 889
Terminal block marking 864
Terminal blocks for PCBs 17
Terminal strips for PCBs
with locking slides, 96
double-deck, 58
triple-deck, 66
quadruple-deck, 74
for reflow soldering, 267
with finger-operated levers, 110
1-conductor, 18
2-conductor 243
Test and disconnect terminal blocks
see "Disconnect and test terminal blocks"
Test plug adapter for *MCS* MIDI 539
Test plug modules with CAGE CLAMP® connection 260
Test pin 886
Tests and testing procedures 894
Triple-deck terminal strips, for PCBs 66

U
UL Specifications – Underwriters Laboratories, USA 914

V
Voltage tester 884

W
WAGO
- worldwide 968
Wire-tap branch connectors
(e.g., for elevator shaft technology) 836
WMB Multi Marking System 862
WSB Quick Marking System 862

Item	Page

Item	Page

Item	Page

Item Number Index

Item No.	Page
206 Series	
206-118	882
206-706	885
206-707	885
206-804	884
206-808	885
206-810	884
206-811	876
206-830	872
206-831	871
206-841	872
206-859	334
206-860	299
206-861	299
209 Series	
209-120	546
209-130	539
209-132	539
209-137	546
209-147	869
209-148	547
209-172	418
209-173	545
209-174	545
209-176	545
209-177	418
210 Series	
210-110	862
210-112	868
210-113	868
210-114	868
210-115	868
210-136	886
210-137	886
210-191	867
210-197	868
210-199	867
210-250	872
210-251	872
210-331	866
210-331/250-202	864
210-331/250-204	864
210-331/250-206	864
210-331/250-207	864
210-331/254-202	864
210-331/254-204	864
210-331/254-206	864
210-331/254-207	864
210-331/500-103	865
210-331/500-104	865
210-331/508-103	865
210-331/508-104	865
210-331/750-202	865
210-331/762-202	865
210-332	866
210-332/350-202	864
210-332/350-204	864
210-332/350-206	864
210-332/381-202	864
210-332/381-204	864
210-332/381-205	864
210-332/381-206	864
210-332/396-202	864
210-332/396-204	864
210-332/396-205	864
210-332/396-206	864
210-332/400-202	864
210-332/400-204	864
210-332/400-205	864
210-332/400-206	864
210-332/500-202	865
210-332/500-204	865
210-332/500-205	865
210-332/500-206	865
210-332/508-202	865
210-332/508-204	865
210-332/508-205	865
210-332/508-206	865

Item No.	Page
210 Series	
210-332/575-103	865
210-332/700-102	865
210-332/700-103	865
210-332/750-020	865
210-332/762-020	865
210-332/1000-202	866
210-332/1000-204	866
210-332/1000-206	866
210-332/1016-202	866
210-332/1016-204	866
210-332/1016-206	866
210-334	866
210-334/762-202	866
210-406	867
210-416	867
210-493	867
210-533	857
210-647	870
210-648	870
210-657	870
210-658	870
210-719	870
210-720	870
210-721	870
210-722	870
216 Series	
216-101	879
216-102	879
216-103	879
216-104	879
216-106	879
216-107	879
216-108	879
216-109	879
216-110	879
216-121	879
216-122	879
216-123	879
216-124	879
216-131	879
216-132	879
216-151	879
216-152	879
216-201	879
216-202	879
216-203	879
216-204	879
216-205	879
216-206	879
216-207	879
216-208	879
216-209	879
216-210	879
216-221	879
216-222	879
216-223	879
216-224	879
216-301	879
216-302	879
216-321	879
216-322	879
216-413	881
216-414	881
216-424	881
216-425	881
216-435	881
218 Series	
218-102	97
218-102/000-604	295
218-102/000-604/997-403	295
218-103	97
218-103/000-604	295
218-103/000-604/997-405	295
218-104	97
218-104/000-604	295
218-104/000-604/997-405	295
218-105	97
218-105/000-604	295

Item No.	Page
218 Series	
218-105/000-604/997-405	295
218-106	97
218-106/000-604	295
218-106/000-604/997-405	295
218-107	97
218-107/000-604	295
218-107/000-604/997-405	295
218-108	97
218-109	97
218-110	97
218-111	97
218-112	97
218-113	97
218-114	97
218-115	97
218-116	97
218-117	97
218-118	97
218-119	97
218-120	97
218-121	97
218-122	97
218-123	97
218-124	97
218-502	97
218-502/000-604	296
218-502/000-604/997-403	296
218-503	97
218-503/000-604	296
218-503/000-604/997-405	296
218-504	97
218-504/000-604	296
218-504/000-604/997-405	296
218-505	97
218-505/000-604	296
218-505/000-604/997-405	296
218-506	97
218-506/000-604	296
218-506/000-604/997-405	296
218-507	97
218-507/000-604	296
218-507/000-604/997-405	296
218-508	97
218-509	97
218-510	97
218-511	97
218-512	97
218-513	97
218-514	97
218-515	97
218-516	97
218-517	97
218-518	97
218-519	97
218-520	97
218-521	97
218-522	97
218-523	97
218-524	97
226 Series	
226-101	809
226-102	807
226-103	813
226-104	809
226-107	811
226-108	815
226-109	807
226-110	807
226-111	809
226-112	807
226-113	813
226-114	809
226-119	807
226-120	807
231 Series	
231-100	260
231-102/008-000	563
231-102/026-000	561

Item No.	Page
231 Series	
231-102/031-000	562
231-102/037-000	562
231-102/102-000	561
231-103/008-000	563
231-103/026-000	561
231-103/031-000	562
231-103/037-000	562
231-103/102-000	561
231-104/008-000	563
231-104/026-000	561
231-104/031-000	562
231-104/037-000	562
231-104/102-000	561
231-105/008-000	563
231-105/026-000	561
231-105/031-000	562
231-105/037-000	562
231-105/102-000	561
231-106/008-000	563
231-106/026-000	561
231-106/027-000	562
231-106/031-000	562
231-106/037-000	562
231-106/102-000	561
231-107/008-000	563
231-107/026-000	561
231-107/027-000	562
231-107/031-000	562
231-107/037-000	562
231-107/102-000	561
231-108/008-000	563
231-108/026-000	561
231-108/027-000	562
231-108/031-000	562
231-108/037-000	562
231-108/102-000	561
231-109/008-000	563
231-109/026-000	561
231-109/027-000	562
231-109/031-000	562
231-109/037-000	562
231-109/102-000	561
231-110/008-000	563
231-110/026-000	561
231-110/027-000	562
231-110/031-000	562
231-110/037-000	562
231-110/102-000	561
231-111/008-000	563
231-111/026-000	561
231-111/027-000	562
231-111/031-000	562
231-111/037-000	562
231-111/102-000	561
231-112/008-000	563
231-112/026-000	561
231-112/027-000	562
231-112/031-000	562
231-112/037-000	562
231-112/102-000	561
231-113/008-000	563
231-113/026-000	561
231-113/027-000	562
231-113/031-000	562
231-113/037-000	562
231-113/102-000	561
231-114/008-000	563
231-114/026-000	561
231-114/027-000	562
231-114/031-000	562
231-114/037-000	562
231-114/102-000	561
231-115/008-000	563
231-115/026-000	561
231-115/027-000	562
231-115/031-000	562
231-115/037-000	562
231-115/102-000	561
231-116/008-000	563
231-116/026-000	561
231-116/027-000	562

Item No.	Page
231 Series	
231-116/031-000	562
231-116/037-000	562
231-116/102-000	561
231-117/008-000	563
231-117/026-000	561
231-117/027-000	562
231-117/031-000	562
231-117/037-000	562
231-117/102-000	561
231-118/008-000	563
231-118/026-000	561
231-118/027-000	562
231-118/031-000	562
231-118/037-000	562
231-118/102-000	561
231-119/008-000	563
231-119/026-000	561
231-119/027-000	562
231-119/031-000	562
231-119/037-000	562
231-119/102-000	561
231-120/008-000	563
231-120/026-000	561
231-120/027-000	562
231-120/031-000	562
231-120/037-000	562
231-121/008-000	563
231-121/026-000	561
231-121/027-000	562
231-121/031-000	562
231-121/037-000	562
231-121/102-000	561
231-122/008-000	563
231-122/026-000	561
231-122/027-000	562
231-122/031-000	562
231-122/037-000	562
231-122/102-000	561
231-123/008-000	563
231-123/026-000	561
231-123/027-000	562
231-123/031-000	562
231-123/037-000	562
231-123/102-000	561
231-124/008-000	563
231-124/026-000	561
231-124/027-000	562
231-124/031-000	562
231-124/037-000	562
231-124/102-000	561
231-125	260
231-126	260
231-127	260
231-128	260
231-129	540
231-130	540
231-131	724
231-132/001-000	587
231-132/001-000/105-604	600
231-132/001-000/105-604/997-405	600
231-132/040-000	588
231-133/001-000	587
231-133/001-000/105-604	600
231-133/001-000/105-604/997-405	600
231-133/040-000	588
231-134/001-000	587
231-134/001-000/105-604	600
231-134/001-000/105-604/997-407	600
231-135/001-000	587
231-135/001-000/105-604	600
231-135/001-000/105-604/997-407	600
231-135/040-000	588
231-136/001-000	587
231-136/001-000/105-604	600
231-136/001-000/105-604/997-407	600
231-136/040-000	588
231-137/001-000	587
231-137/001-000/105-604	600
231-137/001-000/105-604/997-407	600
231-138/001-000	587
231-138/001-000/105-604	600

Item No.	Page
231 Series	
231-138/001-000/105-604/997-407	600
231-139/001-000	587
231-139/001-000/105-604	600
231-139/001-000/105-604/997-409	600
231-140/001-000	587
231-140/001-000/105-604	600
231-140/001-000/105-604/997-409	600
231-141/001-000	587
231-141/001-000/105-604	600
231-141/001-000/105-604/997-409	600
231-142/001-000	587
231-142/001-000/105-604	600
231-142/001-000/105-604/997-409	600
231-143/001-000	587
231-144/001-000	587
231-144/040-000	588
231-145/001-000	587
231-147/001-000	587
231-148/001-000	587
231-149/001-000	587
231-150/001-000	587
231-151/001-000	587
231-152/001-000	587
231-153/001-000	587
231-154/001-000	587
231-155	261
231-159	538
231-160	540
231-161	260
231-162/001-000	593
231-162/001-000/105-604	604
231-162/001-000/105-604/997-405	604
231-162/003-000	613
231-162/040-000	594
231-163/001-000	593
231-163/001-000/105-604	604
231-163/001-000/105-604/997-405	604
231-163/003-000	613
231-163/040-000	594
231-164/001-000	593
231-164/001-000/105-604	604
231-164/001-000/105-604/997-407	604
231-164/003-000	613
231-165/001-000	593
231-165/001-000/105-604	604
231-165/001-000/105-604/997-407	604
231-165/003-000	613
231-165/040-000	594
231-166/001-000	593
231-166/001-000/105-604	604
231-166/001-000/105-604/997-407	604
231-166/003-000	613
231-166/040-000	594
231-167/001-000	593
231-167/001-000/105-604	604
231-167/001-000/105-604/997-407	604
231-167/003-000	613
231-168/001-000	593
231-168/001-000/105-604	604
231-168/001-000/105-604/997-407	604
231-168/003-000	613
231-169/001-000	593
231-169/001-000/105-604	604
231-169/001-000/105-604/997-409	604
231-169/003-000	613
231-170/001-000	593
231-170/001-000/105-604	604
231-170/001-000/105-604/997-409	604
231-170/003-000	613
231-171/001-000	593
231-171/001-000/105-604	604
231-171/001-000/105-604/997-409	604
231-171/003-000	613
231-172/001-000	593
231-172/001-000/105-604	604
231-172/001-000/105-604/997-409	604
231-172/003-000	613
231-173/001-000	593
231-174/001-000	593
231-174/040-000	594
231-175/001-000	593

Item No.	Page
231 Series	
231-176/001-000	593
231-177/001-000	593
231-178/001-000	593
231-179/001-000	593
231-180/001-000	593
231-181/001-000	593
231-182/001-000	593
231-183/001-000	593
231-184/001-000	593
231-193	541
231-194	546
231-195	541
231-202/008-000	654
231-202/026-000	653
231-202/031-000	653
231-202/037-000	653
231-203/008-000	654
231-203/026-000	653
231-203/031-000	653
231-203/037-000	653
231-204/008-000	654
231-204/026-000	653
231-204/031-000	653
231-204/037-000	653
231-205/008-000	654
231-205/026-000	653
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231-206/008-000	654
231-206/026-000	653
231-206/027-000	654
231-206/031-000	653
231-206/037-000	653
231-207/008-000	654
231-207/026-000	653
231-207/027-000	654
231-207/031-000	653
231-207/037-000	653
231-208/008-000	654
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231-208/027-000	654
231-208/031-000	653
231-208/037-000	653
231-209/008-000	654
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231-209/027-000	654
231-209/031-000	653
231-209/037-000	653
231-210/008-000	654
231-210/026-000	653
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231-210/031-000	653
231-210/037-000	653
231-211/008-000	654
231-211/026-000	653
231-211/027-000	654
231-211/031-000	653
231-211/037-000	653
231-212/008-000	654
231-212/026-000	653
231-212/027-000	654
231-212/031-000	653
231-212/037-000	653
231-213/008-000	654
231-213/026-000	653
231-213/027-000	654
231-213/031-000	653
231-213/037-000	653
231-216/008-000	654
231-216/026-000	653
231-216/027-000	654
231-216/031-000	653
231-216/037-000	653
231-231	538
231-232/001-000	679
231-232/001-000/105-604	688
231-232/001-000/105-604/997-405	688
231-233/001-000	679
231-233/001-000/105-604	688
231-233/001-000/105-604/997-407	688
231-234/001-000	679

Item No.	Page
231 Series	
231-234/001-000/105-604	688
231-234/001-000/105-604/997-407	688
231-235/001-000	679
231-235/001-000/105-604	688
231-235/001-000/105-604/997-407	688
231-236/001-000	679
231-236/001-000/105-604	688
231-236/001-000/105-604/997-409	688
231-237/001-000	679
231-237/001-000/105-604	688
231-237/001-000/105-604/997-409	688
231-238/001-000	679
231-238/001-000/105-604	688
231-238/001-000/105-604/997-409	688
231-239/001-000	679
231-239/001-000/105-604	688
231-239/001-000/105-604/997-409	688
231-240/001-000	679
231-240/001-000/105-604	688
231-240/040-000	680
231-241/001-000	679
231-241/001-000/105-604	688
231-242/001-000	679
231-242/001-000/105-604	688
231-243/001-000	679
231-246/001-000	679
231-262/001-000	683
231-262/001-000/105-604	692
231-262/001-000/105-604/997-405	692
231-263/001-000	683
231-263/001-000/105-604	692
231-263/001-000/105-604/997-407	692
231-264/001-000	683
231-264/001-000/105-604	692
231-264/001-000/105-604/997-407	692
231-265/001-000	683
231-265/001-000/105-604	692
231-265/001-000/105-604/997-407	692
231-266/001-000	683
231-266/001-000/105-604	692
231-266/001-000/105-604/997-409	692
231-267/001-000	683
231-267/001-000/105-604	692
231-267/001-000/105-604/997-409	692
231-268/001-000	683
231-268/001-000/105-604	692
231-268/001-000/105-604/997-409	692
231-269/001-000	683
231-269/001-000/105-604	692
231-269/001-000/105-604/997-409	692
231-270/001-000	683
231-270/001-000/105-604	692
231-270/040-000	684
231-271/001-000	683
231-271/001-000/105-604	692
231-272/001-000	683
231-272/001-000/105-604	692
231-273/001-000	683
231-276/001-000	683
231-291	538
231-295	869
231-300	260
231-302/008-000	619
231-302/026-000	615
231-302/031-000	617
231-302/037-000	616
231-302/102-000	615
231-302/107-000	616
231-303/008-000	619
231-303/026-000	615
231-303/031-000	617
231-303/037-000	616
231-303/102-000	615
231-303/107-000	616
231-304/008-000	619
231-304/026-000	615
231-304/031-000	617
231-304/037-000	616
231-304/102-000	615
231-304/107-000	616
231-305/008-000	619

Item Number Index

Item No.	Page
231 Series	
231-305/026-000	615
231-305/031-000	617
231-305/037-000	616
231-305/102-000	615
231-305/107-000	616
231-306/008-000	619
231-306/026-000	615
231-306/027-000	618
231-306/031-000	617
231-306/037-000	616
231-306/102-000	615
231-306/107-000	616
231-307/008-000	619
231-307/026-000	615
231-307/027-000	618
231-307/031-000	617
231-307/037-000	616
231-307/102-000	615
231-307/107-000	616
231-308/008-000	619
231-308/026-000	615
231-308/027-000	618
231-308/031-000	617
231-308/037-000	616
231-308/102-000	615
231-308/107-000	616
231-309/008-000	619
231-309/026-000	615
231-309/027-000	618
231-309/031-000	617
231-309/037-000	616
231-309/102-000	615
231-309/107-000	616
231-310/008-000	619
231-310/026-000	615
231-310/027-000	618
231-310/031-000	617
231-310/037-000	616
231-310/102-000	615
231-310/107-000	616
231-311/008-000	619
231-311/026-000	615
231-311/027-000	618
231-311/031-000	617
231-311/037-000	616
231-311/102-000	615
231-312/008-000	619
231-312/026-000	615
231-312/027-000	618
231-312/031-000	617
231-312/037-000	616
231-312/102-000	615
231-312/107-000	616
231-313/008-000	619
231-313/026-000	615
231-313/027-000	618
231-313/031-000	617
231-313/037-000	616
231-313/102-000	615
231-314/008-000	619
231-314/026-000	615
231-314/027-000	618
231-314/031-000	617
231-314/037-000	616
231-314/102-000	615
231-314/107-000	616
231-315/008-000	619
231-315/026-000	615
231-315/027-000	618
231-315/031-000	617
231-315/037-000	616
231-315/102-000	615
231-315/107-000	616
231-316/008-000	619
231-316/026-000	615
231-316/027-000	618
231-316/031-000	617
231-316/037-000	616
231-316/102-000	615
231-316/107-000	616
231-317/008-000	619

Item No.	Page
231 Series	
231-317/026-000	615
231-317/027-000	618
231-317/031-000	617
231-317/037-000	616
231-317/102-000	615
231-318/008-000	619
231-318/026-000	615
231-318/027-000	618
231-318/031-000	617
231-318/037-000	616
231-318/102-000	615
231-319/008-000	619
231-319/026-000	615
231-319/027-000	618
231-319/031-000	617
231-319/037-000	616
231-319/102-000	615
231-320/008-000	619
231-320/026-000	615
231-320/027-000	618
231-320/031-000	617
231-320/037-000	616
231-320/102-000	615
231-321/008-000	619
231-321/026-000	615
231-321/027-000	618
231-321/031-000	617
231-321/037-000	616
231-321/102-000	615
231-322/008-000	619
231-322/026-000	615
231-322/027-000	618
231-322/031-000	617
231-322/037-000	616
231-322/102-000	615
231-323/008-000	619
231-323/026-000	615
231-323/027-000	618
231-323/031-000	617
231-323/037-000	616
231-323/102-000	615
231-324/008-000	619
231-324/026-000	615
231-324/027-000	618
231-324/031-000	617
231-324/037-000	616
231-324/102-000	615
231-332/001-000	641
231-332/108-000	642
231-333/001-000	641
231-333/108-000	642
231-334/001-000	641
231-334/108-000	642
231-335/001-000	641
231-335/108-000	642
231-336/001-000	641
231-336/108-000	642
231-337/001-000	641
231-337/108-000	642
231-338/001-000	641
231-338/108-000	642
231-339/001-000	641
231-339/108-000	642
231-340/001-000	641
231-340/108-000	642
231-341/001-000	641
231-342/001-000	641
231-342/108-000	642
231-343/001-000	641
231-344/001-000	641
231-344/108-000	642
231-345/001-000	641
231-345/108-000	642
231-346/001-000	641
231-346/108-000	642
231-347/001-000	641
231-348/001-000	641
231-349/001-000	641
231-350/001-000	641
231-351/001-000	641
231-352/001-000	641

Item No.	Page
231 Series	
231-353/001-000	641
231-354/001-000	641
231-362/001-000	647
231-362/108-000	648
231-363/001-000	647
231-363/108-000	648
231-364/001-000	647
231-364/108-000	648
231-365/001-000	647
231-365/108-000	648
231-366/001-000	647
231-366/108-000	648
231-367/001-000	647
231-367/108-000	648
231-368/001-000	647
231-368/108-000	648
231-369/001-000	647
231-369/108-000	648
231-370/001-000	647
231-370/108-000	648
231-371/001-000	647
231-372/001-000	647
231-372/108-000	648
231-373/001-000	647
231-374/001-000	647
231-374/108-000	648
231-375/001-000	647
231-375/108-000	648
231-376/001-000	647
231-376/108-000	648
231-377/001-000	647
231-378/001-000	647
231-379/001-000	647
231-380/001-000	647
231-381/001-000	647
231-382/001-000	647
231-383/001-000	647
231-384/001-000	647
231-393	541
231-426	260
231-432/001-000	587
231-432/001-000/105-604	599
231-432/001-000/105-604/997-405	599
231-432/040-000	587
231-433/001-000	587
231-433/001-000/105-604	599
231-433/001-000/105-604/997-405	599
231-433/040-000	587
231-434/001-000	587
231-434/001-000/105-604	599
231-434/001-000/105-604/997-407	599
231-435/001-000	587
231-435/001-000/105-604	599
231-435/001-000/105-604/997-407	599
231-435/040-000	587
231-436/001-000	587
231-436/001-000/105-604	599
231-436/001-000/105-604/997-407	599
231-436/040-000	587
231-437/001-000	587
231-437/001-000/105-604	599
231-437/001-000/105-604/997-407	599
231-438/001-000	587
231-438/001-000/105-604	599
231-438/001-000/105-604/997-407	599
231-439/001-000	587
231-439/001-000/105-604	599
231-439/001-000/105-604/997-409	599
231-440/001-000	587
231-440/001-000/105-604	599
231-440/001-000/105-604/997-409	599
231-441/001-000	587
231-441/001-000/105-604	599
231-441/001-000/105-604/997-409	599
231-442/001-000	587
231-442/001-000/105-604	599
231-442/001-000/105-604/997-409	599
231-443/001-000	587
231-444/001-000	587
231-444/040-000	587
231-445/001-000	587

Item No.	Page
231 Series	
231-446/001-000	587
231-447/001-000	587
231-448/001-000	587
231-449/001-000	587
231-450/001-000	587
231-451/001-000	587
231-452/001-000	587
231-453/001-000	587
231-454/001-000	587
231-455	261
231-456	261
231-462/001-000	593
231-462/001-000/105-604	603
231-462/001-000/105-604/997-405	603
231-462/040-000	593
231-463/001-000	593
231-463/001-000/105-604	603
231-463/001-000/105-604/997-405	603
231-463/040-000	593
231-464/001-000	593
231-464/001-000/105-604	603
231-464/001-000/105-604/997-407	603
231-465/001-000	593
231-465/001-000/105-604	603
231-465/001-000/105-604/997-407	603
231-465/040-000	593
231-466/001-000	593
231-466/001-000/105-604	603
231-466/001-000/105-604/997-407	603
231-466/040-000	593
231-467/001-000	593
231-467/001-000/105-604	603
231-467/001-000/105-604/997-407	603
231-468/001-000	593
231-468/001-000/105-604	603
231-468/001-000/105-604/997-407	603
231-469/001-000	593
231-469/001-000/105-604	603
231-469/001-000/105-604/997-409	603
231-470/001-000	593
231-470/001-000/105-604	603
231-470/001-000/105-604/997-409	603
231-471/001-000	593
231-471/001-000/105-604	603
231-471/001-000/105-604/997-409	603
231-472/001-000	593
231-472/001-000/105-604	603
231-472/001-000/105-604/997-409	603
231-473/001-000	593
231-474/001-000	593
231-474/040-000	593
231-475/001-000	593
231-476/001-000	593
231-477/001-000	593
231-478/001-000	593
231-479/001-000	593
231-480/001-000	593
231-481/001-000	593
231-482/001-000	593
231-483/001-000	593
231-484/001-000	593
231-500	540
231-532/001-000	641
231-532/108-000	641
231-533/001-000	641
231-533/108-000	641
231-534/001-000	641
231-534/108-000	641
231-535/001-000	641
231-535/108-000	641
231-536/001-000	641
231-536/108-000	641
231-537/001-000	641
231-537/108-000	641
231-538/001-000	641
231-538/108-000	641
231-539/001-000	641
231-539/108-000	641
231-540/001-000	641
231-540/108-000	641
231-541/001-000	641

Item No.	Page
231 Series	
231-542/001-000	641
231-542/108-000	641
231-543/001-000	641
231-544/001-000	641
231-544/108-000	641
231-545/001-000	641
231-545/108-000	641
231-546/001-000	641
231-546/108-000	641
231-547/001-000	641
231-548/001-000	641
231-549/001-000	641
231-550/001-000	641
231-551/001-000	641
231-552/001-000	641
231-553/001-000	641
231-554/001-000	641
231-562/001-000	647
231-562/108-000	647
231-563/001-000	647
231-563/108-000	647
231-564/001-000	647
231-564/108-000	647
231-565/001-000	647
231-565/108-000	647
231-566/001-000	647
231-566/108-000	647
231-567/001-000	647
231-567/108-000	647
231-568/001-000	647
231-568/108-000	647
231-569/001-000	647
231-569/108-000	647
231-570/001-000	647
231-570/108-000	647
231-571/001-000	647
231-572/001-000	647
231-572/108-000	647
231-573/001-000	647
231-574/001-000	647
231-574/108-000	647
231-575/001-000	647
231-575/108-000	647
231-576/001-000	647
231-576/108-000	647
231-577/001-000	647
231-578/001-000	647
231-579/001-000	647
231-580/001-000	647
231-581/001-000	647
231-582/001-000	647
231-583/001-000	647
231-584/001-000	647
231-602	577
231-602/017-000	827
231-602/018-000	579
231-602/019-000	577
231-602/023-000	827
231-602/114-000	578
231-603	577
231-603/017-000	827
231-603/018-000	579
231-603/019-000	577
231-603/023-000	827
231-603/114-000	578
231-604	577
231-604/017-000	827
231-604/018-000	579
231-604/019-000	577
231-604/023-000	827
231-604/114-000	578
231-605	577
231-605/017-000	827
231-605/018-000	579
231-605/019-000	577
231-605/023-000	827
231-605/114-000	578
231-606	577
231-606/017-000	827
231-606/018-000	579
231-606/019-000	577

Item No.	Page
231 Series	
231-606/023-000	827
231-606/114-000	578
231-607	577
231-607/017-000	827
231-607/018-000	579
231-607/019-000	577
231-607/023-000	827
231-607/114-000	578
231-608	577
231-608/017-000	827
231-608/018-000	579
231-608/019-000	577
231-608/023-000	827
231-608/114-000	578
231-609	577
231-609/017-000	827
231-609/018-000	579
231-609/019-000	577
231-609/023-000	827
231-609/114-000	578
231-610	577
231-610/017-000	827
231-610/018-000	579
231-610/019-000	577
231-610/023-000	827
231-610/114-000	578
231-611	577
231-611/017-000	827
231-611/018-000	579
231-611/019-000	577
231-611/023-000	827
231-611/114-000	578
231-612	577
231-612/017-000	827
231-612/018-000	579
231-612/019-000	577
231-612/023-000	827
231-612/114-000	578
231-613	577
231-613/018-000	579
231-613/019-000	577
231-613/114-000	578
231-614	577
231-614/018-000	579
231-614/019-000	577
231-614/114-000	578
231-615	577
231-615/018-000	579
231-615/019-000	577
231-615/114-000	578
231-616	577
231-616/018-000	579
231-616/019-000	577
231-616/114-000	578
231-617	577
231-617/018-000	579
231-617/019-000	577
231-617/114-000	578
231-618	577
231-618/018-000	579
231-618/019-000	577
231-618/114-000	578
231-619	577
231-619/018-000	579
231-619/019-000	577
231-619/114-000	578
231-620	577
231-620/018-000	579
231-620/019-000	577
231-620/114-000	578
231-621	577
231-621/018-000	579
231-621/019-000	577
231-621/114-000	578
231-622	577
231-622/018-000	579
231-622/019-000	577
231-622/114-000	578
231-623	577
231-623/018-000	579
231-623/019-000	577

Item No.	Page
231 Series	
231-623/114-000	578
231-624	577
231-624/018-000	579
231-624/019-000	577
231-624/114-000	578
231-632	631
231-632/017-000	829
231-632/018-000	633
231-632/019-000	631
231-632/023-000	829
231-632/109-000	631
231-632/114-000	632
231-632/129-000	633
231-633	631
231-633/017-000	829
231-633/018-000	633
231-633/019-000	631
231-633/023-000	829
231-633/109-000	631
231-633/114-000	632
231-633/129-000	633
231-634	631
231-634/017-000	829
231-634/018-000	633
231-634/019-000	631
231-634/023-000	829
231-634/109-000	631
231-634/114-000	632
231-634/129-000	633
231-635	631
231-635/017-000	829
231-635/018-000	633
231-635/019-000	631
231-635/023-000	829
231-635/109-000	631
231-635/114-000	632
231-635/129-000	633
231-636	631
231-636/017-000	829
231-636/018-000	633
231-636/019-000	631
231-636/023-000	829
231-636/109-000	631
231-636/114-000	632
231-636/129-000	633
231-637	631
231-637/017-000	829
231-637/018-000	633
231-637/019-000	631
231-637/023-000	829
231-637/109-000	631
231-637/114-000	632
231-637/129-000	633
231-638	631
231-638/017-000	829
231-638/018-000	633
231-638/019-000	631
231-638/023-000	829
231-638/109-000	631
231-638/114-000	632
231-638/129-000	633
231-639	631
231-639/017-000	829
231-639/018-000	633
231-639/019-000	631
231-639/023-000	829
231-639/109-000	631
231-639/114-000	632
231-639/129-000	633
231-640	631
231-640/017-000	829
231-640/018-000	633
231-640/019-000	631
231-640/023-000	829
231-640/109-000	631
231-640/114-000	632
231-640/129-000	633
231-641	631
231-641/017-000	829
231-641/018-000	633
231-641/019-000	631

Item No.	Page
231 Series	
231-641/023-000	829
231-641/114-000	632
231-642	631
231-642/017-000	829
231-642/018-000	633
231-642/019-000	631
231-642/023-000	829
231-642/109-000	631
231-642/114-000	632
231-642/129-000	633
231-643	631
231-643/018-000	633
231-643/019-000	631
231-643/114-000	632
231-644	631
231-644/018-000	633
231-644/019-000	631
231-644/109-000	631
231-644/114-000	632
231-644/129-000	633
231-645	631
231-645/018-000	633
231-645/019-000	631
231-645/109-000	631
231-645/114-000	632
231-645/129-000	633
231-646	631
231-646/018-000	633
231-646/019-000	631
231-646/109-000	631
231-646/114-000	632
231-646/129-000	633
231-647	631
231-647/018-000	633
231-647/019-000	631
231-647/114-000	632
231-648	631
231-648/018-000	633
231-648/019-000	631
231-648/114-000	632
231-649	631
231-649/018-000	633
231-649/019-000	631
231-649/114-000	632
231-650	631
231-650/018-000	633
231-650/019-000	631
231-650/114-000	632
231-651	631
231-651/018-000	633
231-651/019-000	631
231-651/114-000	632
231-652	631
231-652/018-000	633
231-652/019-000	631
231-652/114-000	632
231-653	631
231-653/018-000	633
231-653/019-000	631
231-653/114-000	632
231-654	631
231-654/018-000	633
231-654/019-000	631
231-654/114-000	632
231-661	539
231-662	539
231-668	541
231-669	541
231-670	541
231-671	541
231-672	541
231-673	541
231-674	541
231-675	541
231-702/008-000	698
231-702/026-000	697
231-702/031-000	697
231-702/037-000	697
231-703/008-000	698
231-703/026-000	697
231-703/031-000	697

Item Number Index

Item No.	Page
231 Series	
231-703/037-000	697
231-704/008-000	698
231-704/026-000	697
231-704/031-000	697
231-704/037-000	697
231-705/008-000	698
231-705/026-000	697
231-705/031-000	697
231-705/037-000	697
231-706/008-000	698
231-706/026-000	697
231-706/027-000	698
231-706/031-000	697
231-706/037-000	697
231-707/008-000	698
231-707/026-000	697
231-707/027-000	698
231-707/031-000	697
231-707/037-000	697
231-708/008-000	698
231-708/026-000	697
231-708/027-000	698
231-708/031-000	697
231-708/037-000	697
231-709/008-000	698
231-709/026-000	697
231-709/027-000	698
231-709/031-000	697
231-709/037-000	697
231-710/008-000	698
231-710/026-000	697
231-710/027-000	698
231-710/031-000	697
231-710/037-000	697
231-711/008-000	698
231-711/026-000	697
231-711/027-000	698
231-711/031-000	697
231-711/037-000	697
231-712/008-000	698
231-712/026-000	697
231-712/027-000	698
231-712/031-000	697
231-712/037-000	697
231-732/001-000	719
231-733/001-000	719
231-734/001-000	719
231-735/001-000	719
231-736/001-000	719
231-737/001-000	719
231-738/001-000	719
231-739/001-000	719
231-740/001-000	719
231-741/001-000	719
231-742/001-000	719
231-762/001-000	721
231-763/001-000	721
231-764/001-000	721
231-765/001-000	721
231-766/001-000	721
231-767/001-000	721
231-768/001-000	721
231-769/001-000	721
231-770/001-000	721
231-771/001-000	721
231-772/001-000	721
231-832/001-000	679
231-832/001-000/105-604	687
231-832/001-000/105-604/997-405	687
231-833/001-000	679
231-833/001-000/105-604	687
231-833/001-000/105-604/997-407	687
231-834/001-000	679
231-834/001-000/105-604	687
231-834/001-000/105-604/997-407	687
231-835/001-000	679
231-835/001-000/105-604	687
231-835/001-000/105-604/997-407	687
231-836/001-000	679
231-836/001-000/105-604	687
231-836/001-000/105-604/997-409	687

Item No.	Page
231 Series	
231-837/001-000	679
231-837/001-000/105-604	687
231-837/001-000/105-604/997-409	687
231-838/001-000	679
231-838/001-000/105-604	687
231-838/001-000/105-604/997-409	687
231-839/001-000	679
231-839/001-000/105-604	687
231-839/001-000/105-604/997-409	687
231-840/001-000	679
231-840/001-000/105-604	687
231-840/040-000	679
231-841/001-000	679
231-841/001-000/105-604	687
231-842/001-000	679
231-842/001-000/105-604	687
231-843/001-000	679
231-846/001-000	679
231-862/001-000	683
231-862/001-000/105-604	691
231-862/001-000/105-604/997-405	691
231-863/001-000	683
231-863/001-000/105-604	691
231-863/001-000/105-604/997-407	691
231-864/001-000	683
231-864/001-000/105-604	691
231-864/001-000/105-604/997-407	691
231-865/001-000	683
231-865/001-000/105-604	691
231-865/001-000/105-604/997-407	691
231-866/001-000	683
231-866/001-000/105-604	691
231-866/001-000/105-604/997-409	691
231-867/001-000	683
231-867/001-000/105-604	691
231-867/001-000/105-604/997-409	691
231-868/001-000	683
231-868/001-000/105-604	691
231-868/001-000/105-604/997-409	691
231-869/001-000	683
231-869/001-000/105-604	691
231-869/001-000/105-604/997-409	691
231-870/001-000	683
231-870/001-000/105-604	691
231-870/040-000	683
231-871/001-000	683
231-871/001-000/105-604	691
231-872/001-000	683
231-872/001-000/105-604	691
231-873/001-000	683
231-876/001-000	683
231-902	547
231-903	547
231-905	547
231-907	547
231-910	547
231-932/001-000	719
231-933/001-000	719
231-934/001-000	719
231-935/001-000	719
231-936/001-000	719
231-937/001-000	719
231-938/001-000	719
231-939/001-000	719
231-940/001-000	719
231-941/001-000	719
231-942/001-000	719
231-962/001-000	721
231-963/001-000	721
231-964/001-000	721
231-965/001-000	721
231-966/001-000	721
231-967/001-000	721
231-968/001-000	721
231-969/001-000	721
231-970/001-000	721
231-971/001-000	721
231-972/001-000	721
231-2102/026-000	571
231-2102/037-000	571
231-2103/026-000	571

Item No.	Page
231 Series	
231-2103/037-000	571
231-2104/026-000	571
231-2104/037-000	571
231-2105/026-000	571
231-2105/037-000	571
231-2106/026-000	571
231-2106/037-000	571
231-2107/026-000	571
231-2107/037-000	571
231-2108/026-000	571
231-2108/037-000	571
231-2109/026-000	571
231-2109/037-000	571
231-2110/026-000	571
231-2110/037-000	571
231-2111/026-000	571
231-2111/037-000	571
231-2112/026-000	571
231-2112/037-000	571
231-2113/026-000	571
231-2113/037-000	571
231-2114/026-000	571
231-2114/037-000	571
231-2115/026-000	571
231-2115/037-000	571
231-2116/026-000	571
231-2116/037-000	571
231-2202/026-000	663
231-2202/037-000	663
231-2203/026-000	663
231-2203/037-000	663
231-2204/026-000	663
231-2204/037-000	663
231-2205/026-000	663
231-2205/037-000	663
231-2206/026-000	663
231-2206/037-000	663
231-2207/026-000	663
231-2207/037-000	663
231-2208/026-000	663
231-2208/037-000	663
231-2209/026-000	663
231-2209/037-000	663
231-2210/026-000	663
231-2210/037-000	663
231-2211/026-000	663
231-2211/037-000	663
231-2212/026-000	663
231-2212/037-000	663
231-2302/026-000	623
231-2302/037-000	623
231-2302/107-000	623
231-2303/026-000	623
231-2303/037-000	623
231-2303/107-000	623
231-2304/026-000	623
231-2304/037-000	623
231-2304/107-000	623
231-2305/026-000	623
231-2305/037-000	623
231-2305/107-000	623
231-2306/026-000	623
231-2306/037-000	623
231-2306/107-000	623
231-2307/026-000	623
231-2307/037-000	623
231-2307/107-000	623
231-2308/026-000	623
231-2308/037-000	623
231-2308/107-000	623
231-2309/026-000	623
231-2309/037-000	623
231-2309/107-000	623
231-2310/026-000	623
231-2310/037-000	623
231-2310/107-000	623
231-2311/026-000	623
231-2311/037-000	623
231-2312/026-000	623
231-2312/037-000	623
231-2312/107-000	623

Item No.	Page
231 Series	
231-2313/026-000	623
231-2313/037-000	623
231-2314/026-000	623
231-2314/037-000	623
231-2314/107-000	623
231-2315/026-000	623
231-2315/037-000	623
231-2315/107-000	623
231-2316/026-000	623
231-2316/037-000	623
231-2316/107-000	623
231-2702/026-000	703
231-2702/037-000	703
231-2703/026-000	703
231-2703/037-000	703
231-2704/026-000	703
231-2704/037-000	703
231-2705/026-000	703
231-2705/037-000	703
231-2706/026-000	703
231-2706/037-000	703
231-2707/026-000	703
231-2707/037-000	703
231-2708/026-000	703
231-2708/037-000	703
231-2709/026-000	703
231-2709/037-000	703
231-2710/026-000	703
231-2710/037-000	703
231-2711/026-000	703
231-2711/037-000	703
231-2712/026-000	703
231-2712/037-000	703
232 Series	
232-102/026-000	565
232-103/026-000	565
232-104/026-000	565
232-105/026-000	565
232-106/026-000	565
232-107/026-000	565
232-108/026-000	565
232-109/026-000	565
232-110/026-000	565
232-111/026-000	565
232-112/026-000	565
232-113/026-000	565
232-114/026-000	565
232-115/026-000	565
232-116/026-000	565
232-117/026-000	565
232-118/026-000	565
232-119/026-000	565
232-120/026-000	565
232-121/026-000	565
232-122/026-000	565
232-123/026-000	565
232-124/026-000	565
232-132	581
232-132/005-000	609
232-132/005-000/039-000	610
232-132/031-000	583
232-132/039-000	582
232-132/047-000	584
232-133	581
232-133/005-000	609
232-133/005-000/039-000	610
232-133/031-000	583
232-133/039-000	582
232-133/047-000	584
232-134	581
232-134/005-000	609
232-134/005-000/039-000	610
232-134/031-000	583
232-134/039-000	582
232-134/047-000	584
232-135	581
232-135/005-000	609
232-135/005-000/039-000	610
232-135/031-000	583

Item No.	Page
232 Series	
232-135/039-000	582
232-135/047-000	584
232-136	581
232-136/005-000	609
232-136/005-000/039-000	610
232-136/031-000	583
232-136/039-000	582
232-136/047-000	584
232-137	581
232-137/005-000	609
232-137/005-000/039-000	610
232-137/031-000	583
232-137/039-000	582
232-137/047-000	584
232-138	581
232-138/005-000	609
232-138/005-000/039-000	610
232-138/031-000	583
232-138/039-000	582
232-138/047-000	584
232-139	581
232-139/005-000	609
232-139/005-000/039-000	610
232-139/031-000	583
232-139/039-000	582
232-139/047-000	584
232-140	581
232-140/005-000	609
232-140/005-000/039-000	610
232-140/031-000	583
232-140/039-000	582
232-140/047-000	584
232-141	581
232-141/005-000	609
232-141/005-000/039-000	610
232-141/031-000	583
232-141/039-000	582
232-141/047-000	584
232-142	581
232-142/005-000	609
232-142/005-000/039-000	610
232-142/031-000	583
232-142/039-000	582
232-142/047-000	584
232-143	581
232-143/031-000	583
232-143/039-000	582
232-143/047-000	584
232-144	581
232-144/031-000	583
232-144/039-000	582
232-144/047-000	584
232-145	581
232-145/031-000	583
232-145/039-000	582
232-145/047-000	584
232-146	581
232-146/031-000	583
232-146/039-000	582
232-146/047-000	584
232-147	581
232-147/031-000	583
232-147/039-000	582
232-147/047-000	584
232-148	581
232-148/031-000	583
232-148/039-000	582
232-148/047-000	584
232-149	581
232-149/031-000	583
232-149/039-000	582
232-149/047-000	584
232-150	581
232-150/031-000	583
232-150/039-000	582
232-150/047-000	584
232-151	581
232-151/031-000	583
232-151/039-000	582
232-151/047-000	584
232-152	581

Item No.	Page
232 Series	
232-152/031-000	583
232-152/039-000	582
232-152/047-000	584
232-153	581
232-153/031-000	583
232-153/039-000	582
232-153/047-000	584
232-154	581
232-154/031-000	583
232-154/047-000	584
232-162	635
232-162/031-000	637
232-162/039-000	636
232-162/047-000	638
232-163	635
232-163/031-000	637
232-163/039-000	636
232-163/047-000	638
232-164	635
232-164/031-000	637
232-164/039-000	636
232-164/047-000	638
232-165	635
232-165/031-000	637
232-165/039-000	636
232-165/047-000	638
232-166	635
232-166/031-000	637
232-166/039-000	636
232-166/047-000	638
232-167	635
232-167/031-000	637
232-167/039-000	636
232-167/047-000	638
232-168	635
232-168/031-000	637
232-168/039-000	636
232-168/047-000	638
232-169	635
232-169/031-000	637
232-169/039-000	636
232-169/047-000	638
232-170	635
232-170/031-000	637
232-170/039-000	636
232-170/047-000	638
232-171	635
232-171/031-000	637
232-171/039-000	636
232-171/047-000	638
232-172	635
232-172/031-000	637
232-172/039-000	636
232-172/047-000	638
232-173	635
232-173/031-000	637
232-173/039-000	636
232-173/047-000	638
232-174	635
232-174/031-000	637
232-174/039-000	636
232-174/047-000	638
232-175	635
232-175/031-000	637
232-175/039-000	636
232-175/047-000	638
232-176	635
232-176/031-000	637
232-176/039-000	636
232-176/047-000	638
232-177	635
232-177/031-000	637
232-177/039-000	636
232-177/047-000	638
232-178	635
232-178/031-000	637
232-178/039-000	636
232-178/047-000	638
232-179	635
232-179/031-000	637
232-179/039-000	636

Item No.	Page
232 Series	
232-179/047-000	638
232-180	635
232-180/031-000	637
232-180/039-000	636
232-180/047-000	638
232-181	635
232-181/031-000	637
232-181/039-000	636
232-181/047-000	638
232-182	635
232-182/031-000	637
232-182/039-000	636
232-182/047-000	638
232-183	635
232-183/031-000	637
232-183/039-000	636
232-183/047-000	638
232-184	635
232-184/031-000	637
232-184/039-000	636
232-184/047-000	638
232-202/026-000	565
232-203/026-000	565
232-204/026-000	565
232-205/026-000	565
232-206/026-000	565
232-207/026-000	565
232-208/026-000	565
232-209/026-000	565
232-210/026-000	565
232-211/026-000	565
232-212/026-000	565
232-213/026-000	565
232-214/026-000	565
232-215/026-000	565
232-216/026-000	565
232-217/026-000	565
232-218/026-000	565
232-219/026-000	565
232-220/026-000	565
232-221/026-000	565
232-222/026-000	565
232-223/026-000	565
232-224/026-000	565
232-232	581
232-232/005-000	609
232-232/005-000/039-000	609
232-232/031-000	583
232-232/039-000	581
232-232/047-000	584
232-233	581
232-233/005-000	609
232-233/005-000/039-000	609
232-233/031-000	583
232-233/039-000	581
232-233/047-000	584
232-234	581
232-234/005-000	609
232-234/005-000/039-000	609
232-234/031-000	583
232-234/039-000	581
232-234/047-000	584
232-235	581
232-235/005-000	609
232-235/005-000/039-000	609
232-235/031-000	583
232-235/039-000	581
232-235/047-000	584
232-236	581
232-236/005-000	609
232-236/005-000/039-000	609
232-236/031-000	583
232-236/039-000	581
232-236/047-000	584
232-237	581
232-237/005-000	609
232-237/005-000/039-000	609
232-237/031-000	583
232-237/039-000	581
232-237/047-000	584
232-238	581

Item No.	Page
232 Series	
232-238/005-000	609
232-238/031-000	583
232-238/039-000	581
232-238/047-000	584
232-239	581
232-239/005-000	609
232-239/005-000/039-000	609
232-239/031-000	583
232-239/039-000	581
232-239/047-000	584
232-240	581
232-240/005-000	609
232-240/005-000/039-000	609
232-240/031-000	583
232-240/039-000	581
232-240/047-000	584
232-241	581
232-241/005-000	609
232-241/005-000/039-000	609
232-241/031-000	583
232-241/039-000	581
232-241/047-000	584
232-242	581
232-242/005-000	609
232-242/005-000/039-000	609
232-242/031-000	583
232-242/039-000	581
232-242/047-000	584
232-243	581
232-243/031-000	583
232-243/039-000	581
232-243/047-000	584
232-244	581
232-244/031-000	583
232-244/039-000	581
232-244/047-000	584
232-245	581
232-245/031-000	583
232-245/039-000	581
232-245/047-000	584
232-246	581
232-246/031-000	583
232-246/039-000	581
232-246/047-000	584
232-247	581
232-247/031-000	583
232-247/039-000	581
232-247/047-000	584
232-248	581
232-248/031-000	583
232-248/039-000	581
232-248/047-000	584
232-249	581
232-249/031-000	583
232-249/039-000	581
232-249/047-000	584
232-250	581
232-250/031-000	583
232-250/039-000	581
232-250/047-000	584
232-251	581
232-251/031-000	583
232-251/039-000	581
232-251/047-000	584
232-252	581
232-252/031-000	583
232-252/039-000	581
232-252/047-000	584
232-253	581
232-253/031-000	583
232-253/039-000	581
232-253/047-000	584
232-254	581
232-254/031-000	583
232-254/039-000	581
232-254/047-000	584
232-262	635
232-262/031-000	637
232-262/039-000	635
232-262/047-000	638
232-263	635

Item Number Index

Item No.	Page
232 Series	
232-263/031-000	637
232-263/039-000	635
232-263/047-000	638
232-264	635
232-264/031-000	637
232-264/039-000	635
232-264/047-000	638
232-265	635
232-265/031-000	637
232-265/039-000	635
232-265/047-000	638
232-266	635
232-266/031-000	637
232-266/039-000	635
232-266/047-000	638
232-267	635
232-267/031-000	637
232-267/039-000	635
232-267/047-000	638
232-268	635
232-268/031-000	637
232-268/039-000	635
232-268/047-000	638
232-269	635
232-269/031-000	637
232-269/039-000	635
232-269/047-000	638
232-270	635
232-270/031-000	637
232-270/039-000	635
232-270/047-000	638
232-271	635
232-271/031-000	637
232-271/039-000	635
232-271/047-000	638
232-272	635
232-272/031-000	637
232-272/039-000	635
232-272/047-000	638
232-273	635
232-273/031-000	637
232-273/039-000	635
232-273/047-000	638
232-274	635
232-274/031-000	637
232-274/039-000	635
232-274/047-000	638
232-275	635
232-275/031-000	637
232-275/039-000	635
232-275/047-000	638
232-276	635
232-276/031-000	637
232-276/039-000	635
232-276/047-000	638
232-277	635
232-277/031-000	637
232-277/039-000	635
232-277/047-000	638
232-278	635
232-278/031-000	637
232-278/039-000	635
232-278/047-000	638
232-279	635
232-279/031-000	637
232-279/039-000	635
232-279/047-000	638
232-280	635
232-280/031-000	637
232-280/039-000	635
232-280/047-000	638
232-281	635
232-281/031-000	637
232-281/039-000	635
232-281/047-000	638
232-282	635
232-282/031-000	637
232-282/039-000	635
232-282/047-000	638
232-283	635
232-283/031-000	637

Item No.	Page
232 Series	
232-283/039-000	635
232-283/047-000	638
232-284	635
232-284/031-000	637
232-284/039-000	635
232-284/047-000	638
232-302/026-000	621
232-303/026-000	621
232-304/026-000	621
232-305/026-000	621
232-306/026-000	621
232-307/026-000	621
232-308/026-000	621
232-309/026-000	621
232-310/026-000	621
232-311/026-000	621
232-312/026-000	621
232-313/026-000	621
232-314/026-000	621
232-315/026-000	621
232-316/026-000	621
232-317/026-000	621
232-318/026-000	621
232-319/026-000	621
232-320/026-000	621
232-321/026-000	621
232-322/026-000	621
232-323/026-000	621
232-324/026-000	621
232-332	591
232-333	591
232-334	591
232-335	591
232-336	591
232-337	591
232-338	591
232-340	591
232-342	591
232-346	591
232-362	645
232-363	645
232-364	645
232-366	645
232-368	645
232-370	645
232-372	645
232-376	645
232-402/026-000	621
232-403/026-000	621
232-404/026-000	621
232-405/026-000	621
232-406/026-000	621
232-407/026-000	621
232-408/026-000	621
232-409/026-000	621
232-410/026-000	621
232-411/026-000	621
232-412/026-000	621
232-413/026-000	621
232-414/026-000	621
232-415/026-000	621
232-416/026-000	621
232-417/026-000	621
232-418/026-000	621
232-419/026-000	621
232-420/026-000	621
232-421/026-000	621
232-422/026-000	621
232-423/026-000	621
232-424/026-000	621
232-502/007-000	607
232-503/007-000	607
232-504/007-000	607
232-505/007-000	607
232-506/007-000	607
232-507/007-000	607
232-508/007-000	607
232-509/007-000	607
232-510/007-000	607
232-511/007-000	607
232-512/007-000	607

Item No.	Page
232 Series	
232-513/007-000	607
232-514/007-000	607
232-515/007-000	607
232-516/007-000	607
232-517/007-000	607
232-518/007-000	607
232-519/007-000	607
232-520/007-000	607
232-521/007-000	607
232-522/007-000	607
232-523/007-000	607
232-524/007-000	607
232-532/007-000	651
232-533/007-000	651
232-534/007-000	651
232-535/007-000	651
232-536/007-000	651
232-537/007-000	651
232-538/007-000	651
232-539/007-000	651
232-540/007-000	651
232-541/007-000	651
232-542/007-000	651
232-543/007-000	651
232-544/007-000	651
232-545/007-000	651
232-546/007-000	651
232-547/007-000	651
232-548/007-000	651
232-549/007-000	651
232-550/007-000	651
232-551/007-000	651
232-552/007-000	651
232-553/007-000	651
232-554/007-000	651
232-562/007-000	695
232-563/007-000	695
232-564/007-000	695
232-565/007-000	695
232-566/007-000	695
232-567/007-000	695
232-568/007-000	695
232-569/007-000	695
232-570/007-000	695
232-571/007-000	695
232-572/007-000	695
232-582/007-000	723
232-583/007-000	723
232-584/007-000	723
232-585/007-000	723
232-586/007-000	723
232-587/007-000	723
232-588/007-000	723
232-589/007-000	723
232-590/007-000	723
232-591/007-000	723
232-592/007-000	723
232-602	544
232-603	544
232-604	544
232-605	544
232-606	544
232-607	544
232-608	544
232-609	544
232-610	544
232-612	544
232-632	544
232-633	544
232-634	544
232-635	544
232-636	544
232-637	544
232-638	544
232-639	544
232-640	544
232-642	544
232-646	544
232-662	545
232-663	545
232-664	545

Item No.	Page
232 Series	
232-665	545
232-667	545
232-670	545
232-682	545
232-683	545
232-684	545
232-685	545
232-687	545
232-732	673
232-732/031-000	675
232-732/039-000	674
232-732/047-000	676
232-733	673
232-733/031-000	675
232-733/039-000	674
232-733/047-000	676
232-734	673
232-734/031-000	675
232-734/039-000	674
232-734/047-000	676
232-735	673
232-735/031-000	675
232-735/039-000	674
232-735/047-000	676
232-736	673
232-736/031-000	675
232-736/039-000	674
232-736/047-000	676
232-737	673
232-737/031-000	675
232-737/039-000	674
232-737/047-000	676
232-738	673
232-738/031-000	675
232-738/039-000	674
232-738/047-000	676
232-739	673
232-739/031-000	675
232-739/039-000	674
232-739/047-000	676
232-740	673
232-740/031-000	675
232-740/039-000	674
232-740/047-000	676
232-741	673
232-741/031-000	675
232-741/039-000	674
232-741/047-000	676
232-742	673
232-742/031-000	675
232-742/039-000	674
232-742/047-000	676
232-743	673
232-743/031-000	675
232-743/039-000	674
232-743/047-000	676
232-746	673
232-746/031-000	675
232-746/039-000	674
232-746/047-000	676
232-762	713
232-762/031-000	715
232-762/039-000	714
232-762/047-000	716
232-763	713
232-763/031-000	715
232-763/039-000	714
232-763/047-000	716
232-764	713
232-764/031-000	715
232-764/039-000	714
232-764/047-000	716
232-765	713
232-765/031-000	715
232-765/039-000	714
232-765/047-000	716
232-766	713
232-766/031-000	715
232-766/039-000	714
232-766/047-000	716
232-767	713

Item No.	Page
232 Series	
232-767/031-000	715
232-767/039-000	714
232-767/047-000	716
232-768	713
232-768/031-000	715
232-768/039-000	714
232-768/047-000	716
232-769	713
232-769/031-000	715
232-769/039-000	714
232-769/047-000	716
232-770	713
232-770/031-000	715
232-770/039-000	714
232-770/047-000	716
232-771	713
232-771/031-000	715
232-771/039-000	714
232-771/047-000	716
232-772	713
232-772/031-000	715
232-772/039-000	714
232-772/047-000	716
232-832	673
232-832/031-000	675
232-832/039-000	673
232-832/047-000	676
232-833	673
232-833/031-000	675
232-833/039-000	673
232-833/047-000	676
232-834	673
232-834/031-000	675
232-834/039-000	673
232-834/047-000	676
232-835	673
232-835/031-000	675
232-835/039-000	673
232-835/047-000	676
232-836	673
232-836/031-000	675
232-836/039-000	673
232-836/047-000	676
232-837	673
232-837/031-000	675
232-837/039-000	673
232-837/047-000	676
232-838	673
232-838/031-000	675
232-838/039-000	673
232-838/047-000	676
232-839	673
232-839/031-000	675
232-839/039-000	673
232-839/047-000	676
232-840	673
232-840/031-000	675
232-840/039-000	673
232-840/047-000	676
232-841	673
232-841/031-000	675
232-841/039-000	673
232-841/047-000	676
232-842	673
232-842/031-000	675
232-842/039-000	673
232-842/047-000	676
232-843	673
232-843/031-000	675
232-843/039-000	673
232-843/047-000	676
232-846	673
232-846/031-000	675
232-846/039-000	673
232-846/047-000	676
232-862	713
232-862/031-000	715
232-862/039-000	713
232-862/047-000	716
232-863	713
232-863/031-000	715

Item No.	Page
232 Series	
232-863/039-000	713
232-863/047-000	716
232-864	713
232-864/031-000	715
232-864/039-000	713
232-864/047-000	716
232-865	713
232-865/031-000	715
232-865/039-000	713
232-865/047-000	716
232-866	713
232-866/031-000	715
232-866/039-000	713
232-866/047-000	716
232-867	713
232-867/031-000	715
232-867/039-000	713
232-867/047-000	716
232-868	713
232-868/031-000	715
232-868/039-000	713
232-868/047-000	716
232-869	713
232-869/031-000	715
232-869/039-000	713
232-869/047-000	716
232-870	713
232-870/031-000	715
232-870/039-000	713
232-870/047-000	716
232-871	713
232-871/031-000	715
232-871/039-000	713
232-871/047-000	716
232-872	713
232-872/031-000	715
232-872/039-000	713
232-872/047-000	716
233 Series	
233-102	21
233-103	21
233-104	21
233-105	21
233-106	21
233-107	21
233-108	21
233-109	21
233-110	21
233-112	21
233-202	101
233-203	101
233-204	101
233-205	101
233-206	101
233-207	101
233-208	101
233-209	101
233-210	101
233-212	101
233-331	871
233-332	871
233-335	871
233-402	21
233-403	21
233-404	21
233-405	21
233-406	21
233-407	21
233-408	21
233-409	21
233-410	21
233-412	21
233-502	101
233-503	101
233-504	101
233-505	101
233-506	101
233-507	101
233-508	101
233-509	101

Item No.	Page
233 Series	
233-510	101
233-512	101
234 Series	
234-202	103
234-203	103
234-204	103
234-205	103
234-206	103
234-207	103
234-208	103
234-209	103
234-210	103
234-212	103
234-502	103
234-503	103
234-504	103
234-505	103
234-506	103
234-507	103
234-508	103
234-509	103
234-510	103
234-512	103
235 Series	
235-100	181
235-101	185
235-101/330-000	221
235-102	187
235-102/330-000	223
235-103	187
235-103/330-000	223
235-104	187
235-104/330-000	223
235-105	187
235-105/330-000	223
235-106	187
235-106/330-000	223
235-107	187
235-107/330-000	223
235-108	187
235-108/330-000	223
235-109	187
235-109/330-000	223
235-110	187
235-110/330-000	223
235-112	187
235-200	181
235-300	181
235-400	181
235-401	217
235-401/331-000	181
235-402	219
235-402/331-000	183
235-403	219
235-403/331-000	183
235-404	219
235-404/331-000	183
235-405	219
235-405/331-000	183
235-406	219
235-406/331-000	183
235-407	219
235-407/331-000	183
235-408	219
235-408/331-000	183
235-409	219
235-409/331-000	183
235-410	219
235-410/331-000	183
235-412	219
235-412/331-000	183
235-500	181
235-501	217
235-501/331-000	181
235-550	181
235-600	181
235-650	181
235-700	181
235-701	181

Item No.	Page
235 Series	
235-740	217
235-740/331-000	181
235-741/331-000	181
235-742	217
235-742/331-000	181
235-743	217
235-743/331-000	181
235-744	217
235-744/331-000	181
235-745/331-000	181
235-746	217
235-746/331-000	181
235-747	217
235-747/331-000	181
235-748/331-000	181
235-749/331-000	181
235-752	217
235-752/331-000	181
235-753	217
235-753/331-000	181
235-754	217
235-754/331-000	181
235-756	217
235-756/331-000	181
235-757	217
235-757/331-000	181
235-758/331-000	181
235-762	217
235-762/331-000	181
235-764/331-000	181
235-766	217
235-766/331-000	181
235-767/331-000	181
235-770	185
235-771	185
235-772	185
235-774	185
235-775	185
235-776	185
235-777	185
235-778	185
235-800	181
235-801	217
235-801/331-000	181
235-850	181
236 Series	
236-100	23
236-101	23
236-102	29
236-103	29
236-104	29
236-106	29
236-108	29
236-112	29
236-116	29
236-124	29
236-136	29
236-148	29
236-200	23
236-201	25
236-202	31
236-203	31
236-204	31
236-206	31
236-208	31
236-212	31
236-216	31
236-224	31
236-300	23
236-301	27
236-302	33
236-303	33
236-304	33
236-306	33
236-308	33
236-312	33
236-316	33
236-324	33
236-332	871

Item Number Index

Item No.	Page
236 Series	
236-335	871
236-400	23
236-401	23
236-402	29
236-402/334-604	293
236-402/334-604/997-405	293
236-403	29
236-403/334-604	293
236-403/334-604/997-405	293
236-404	29
236-404/334-604	293
236-404/334-604/997-406	293
236-405/334-604	293
236-405/334-604/997-406	293
236-406	29
236-406/334-604	293
236-406/334-604/997-406	293
236-408	29
236-412	29
236-416	29
236-424	29
236-436	29
236-448	29
236-500	23
236-501	25
236-502	31
236-503	31
236-504	31
236-506	31
236-508	31
236-512	31
236-516	31
236-524	31
236-600	23
236-601	27
236-602	33
236-603	33
236-604	33
236-606	33
236-608	33
236-612	33
236-616	33
236-624	33
236-700	23
236-710	23
236-711	23
236-712	23
236-713	23
236-714	23
236-715	23
236-716	23
236-717	23
236-722	25
236-723	25
236-724	25
236-725	25
236-726	25
236-727	25
236-732	27
236-733	27
236-734	27
236-735	27
236-736	27
236-737	27
236-740	23
236-741	23
236-742	23
236-743	23
236-744	23
236-745	23
236-746	23
236-747	23
236-752	25
236-753	25
236-754	25
236-755	25
236-756	25
236-757	25
236-762	27
236-763	27
236-764	27

Item No.	Page
236 Series	
236-765	27
236-766	27
236-767	27
236-800	23
236-850	23
236-851	23
236-852	25
236-853	27
236-854	23
236-855	25
236-856	27
236-881	23
236-882	25
236-884	23
236-885	25
236-891	23
236-894	23
243 Series	
243-131	791
243-211	847
243-212	847
243-721	797
243-722	797
243-723	797
243-724	797
243-725	797
243-726	797
243-742	797
243-742/000-006	797
243-742/000-012	797
243-743	797
243-743/000-012	797
243-744	797
243-744/000-006	797
243-744/000-007	797
243-744/000-012	797
243-745	797
243-745/000-006	797
243-745/000-012	797
243-746	797
243-746/000-006	797
243-747	797
243-748	797
248 Series	
248-472	863
248-474	863
248-501	862
248-501/000-002	862
248-501/000-005	862
248-501/000-006	862
248-501/000-007	862
248-501/000-012	862
248-501/000-017	862
248-501/000-023	862
248-501/000-024	862
248-502	863
248-503	863
248-504	863
248-505	863
248-506	863
248-507	863
248-508	863
248-509	863
248-510	863
248-511	863
248-512	863
248-513	863
248-514	863
248-515	863
248-516	863
248-517	863
248-565	863
248-566	863
248-569	863
248-570	863
248-571	863
248-572	863

Item No.	Page
248 Series	
248-573	863
249 Series	
249-110	258
249-111	258
249-112	258
249-113	258
249-114	258
249-115	258
249-130	883
250 Series	
250-102	171
250-103	171
250-104	171
250-105	171
250-106	171
250-107	171
250-108	171
250-109	171
250-110	171
250-111	171
250-112	171
250-113	171
250-114	171
250-115	171
250-116	171
250-117	171
250-118	171
250-119	171
250-120	171
250-121	171
250-122	171
250-123	171
250-124	171
250-202	173
250-202/353-604	289
250-202/353-604/997-404	289
250-203	173
250-203/353-604	289
250-203/353-604/997-404	289
250-204	173
250-204/353-604	289
250-204/353-604/997-405	289
250-205	173
250-205/353-604	289
250-205/353-604/997-405	289
250-206	173
250-206/353-604	289
250-206/353-604/997-406	289
250-207	173
250-207/353-604	289
250-207/353-604/997-406	289
250-208	173
250-208/353-604	289
250-208/353-604/997-406	289
250-209	173
250-210	173
250-211	173
250-212	173
250-213	173
250-214	173
250-215	173
250-216	173
250-217	173
250-218	173
250-219	173
250-220	173
250-221	173
250-222	173
250-223	173
250-224	173
250-302	167
250-303	167
250-304	167
250-305	167
250-306	167
250-307	167
250-308	167

Item No.	Page
250 Series	
250-309	167
250-310	167
250-311	167
250-312	167
250-313	167
250-314	167
250-315	167
250-316	167
250-317	167
250-318	167
250-319	167
250-320	167
250-321	167
250-322	167
250-323	167
250-324	167
250-402	169
250-402/353-604	287
250-403	169
250-403/353-604	287
250-404	169
250-404/353-604	287
250-405	169
250-405/353-604	287
250-406	169
250-406/353-604	287
250-407	169
250-407/353-604	287
250-408	169
250-408/353-604	287
250-409	169
250-410	169
250-410/353-604	287
250-411	169
250-412	169
250-413	169
250-414	169
250-415	169
250-416	169
250-417	169
250-418	169
250-419	169
250-420	169
250-421	169
250-422	169
250-423	169
250-424	169
250-502	175
250-503	175
250-504	175
250-505	175
250-506	175
250-507	175
250-508	175
250-509	175
250-510	175
250-511	175
250-512	175
250-513	175
250-514	175
250-515	175
250-516	175
250-602	175
250-603	175
250-604	175
250-605	175
250-606	175
250-607	175
250-608	175
250-609	175
250-610	175
250-611	175
250-612	175
250-702	177
250-703	177
250-704	177
250-706	177
250-708	177
250-710	177
250-712	177
250-716	177

Item No.	Page
250 Series	
250-1402	169
250-1403	169
250-1404	169
250-1405	169
250-1406	169
250-1407	169
250-1408	169
250-1409	169
250-1410	169
250-1411	169
250-1412	169
250-1413	169
250-1414	169
250-1415	169
250-1416	169
250-1417	169
250-1418	169
250-1419	169
250-1420	169
250-1421	169
250-1422	169
250-1423	169
250-1424	169
252 Series	
252-102	791
252-103	791
252-104	791
252-105	791
252-106	791
252-107	791
252-108	791
252-109	791
252-110	791
252-152	792
252-153	792
252-154	792
252-155	792
252-156	792
252-157	792
252-158	792
252-159	792
252-160	792
252-302	791
252-303	791
252-304	791
252-305	791
252-306	791
252-307	791
252-308	791
252-309	791
252-310	791
252-902	792
252-903	792
252-904	792
252-905	792
252-906	792
252-907	792
252-908	792
252-909	792
252-910	792
252-954	792
253 Series	
253-102	243
253-103	243
253-104	243
253-105	243
253-106	243
253-107	243
253-108	243
253-109	243
253-110	243
253-111	243
253-112	243
253-113	243
253-114	243
253-115	243
253-116	243

Item No.	Page
254 Series	
254-100	227
254-200	227
254-300	227
254-400	227
254-451	227
254-452	229
254-453	229
254-454	229
254-455	229
254-456	229
254-457	229
254-458	229
254-459	229
254-460	229
254-462	229
254-466	229
254-474	229
254-551	227
254-552	229
254-553	229
254-554	229
254-555	229
254-556	229
254-557	229
254-558	229
254-559	229
254-560	229
254-562	229
254-600	227
254-651	227
254-652	229
254-653	229
254-654	229
254-655	229
254-656	229
254-657	229
254-658	229
254-659	229
254-660	229
254-662	229
254-700	227
254-842	227
254-843	227
254-844	227
254-846	227
254-847	227
254-848	227
254-852	227
254-853	227
254-854	227
254-856	227
254-857	227
254-862	227
254-863	227
254-864	227
254-866	227
254-867	227
255 Series	
255-100	107
255-200	107
255-300	107
255-400	107
255-401	107
255-402	109
255-402/333-000	111
255-403	109
255-403/333-000	111
255-404	109
255-404/333-000	111
255-405	109
255-405/333-000	111
255-406	109
255-406/333-000	111
255-407	109
255-407/333-000	111
255-408	109
255-408/333-000	111
255-409	109
255-409/333-000	111

Item No.	Page
255 Series	
255-410	109
255-410/333-000	111
255-412	109
255-412/333-000	111
255-500	107
255-501	107
255-502	109
255-502/333-000	111
255-503	109
255-503/333-000	111
255-504	109
255-504/333-000	111
255-505	109
255-505/333-000	111
255-506	109
255-506/333-000	111
255-507	109
255-507/333-000	111
255-508	109
255-508/333-000	111
255-509	109
255-509/333-000	111
255-510	109
255-510/333-000	111
255-512	109
255-512/333-000	111
255-600	107
255-601	107
255-602	109
255-602/333-000	111
255-603	109
255-603/333-000	111
255-604	109
255-604/333-000	111
255-605	109
255-605/333-000	111
255-606	109
255-606/333-000	111
255-607	109
255-607/333-000	111
255-608	109
255-608/333-000	111
255-609	109
255-609/333-000	111
255-610	109
255-610/333-000	111
255-612	109
255-612/333-000	111
255-700	107
255-740	107
255-741	107
255-742	107
255-743	107
255-744	107
255-746	107
255-747	107
255-748	107
255-750	107
255-751	107
255-752	107
255-753	107
255-754	107
255-756	107
255-757	107
255-758	107
255-760	107
255-761	107
255-762	107
255-763	107
255-764	107
255-766	107
255-767	107
255-768	107
255-800	107
255-801	107
255-811	107
255-821	107
256 Series	
256-100	113

Item No.	Page
256 Series	
256-200	113
256-300	113
256-400	113
256-401	113
256-402	115
256-402/333-000	121
256-402/334-000	119
256-403	115
256-403/333-000	121
256-403/334-000	119
256-404	115
256-404/333-000	121
256-404/334-000	119
256-405	115
256-405/333-000	121
256-405/334-000	119
256-406	115
256-406/333-000	121
256-406/334-000	119
256-407	115
256-407/333-000	121
256-407/334-000	119
256-408	115
256-408/333-000	121
256-408/334-000	119
256-409	115
256-409/333-000	121
256-409/334-000	119
256-410	115
256-410/333-000	121
256-410/334-000	119
256-412	115
256-412/333-000	121
256-412/334-000	119
256-461	117
256-500	113
256-501	113
256-502	115
256-502/333-000	121
256-502/334-000	119
256-503	115
256-503/333-000	121
256-503/334-000	119
256-504	115
256-504/333-000	121
256-504/334-000	119
256-505	115
256-505/333-000	121
256-505/334-000	119
256-506	115
256-506/333-000	121
256-506/334-000	119
256-507	115
256-507/333-000	121
256-507/334-000	119
256-508	115
256-508/333-000	121
256-508/334-000	119
256-509	115
256-509/333-000	121
256-509/334-000	119
256-510	115
256-510/333-000	121
256-510/334-000	119
256-512	115
256-512/333-000	121
256-512/334-000	119
256-561	117
256-600	113
256-601	113
256-602	115
256-602/333-000	121
256-602/334-000	119
256-603	115
256-603/333-000	121
256-603/334-000	119
256-604	115
256-604/333-000	121
256-604/334-000	119
256-605	115
256-605/333-000	121

Item Number Index

Item No.	Page
256 Series	
256-605/334-000	119
256-606	115
256-606/333-000	121
256-606/334-000	119
256-607	115
256-607/333-000	121
256-607/334-000	119
256-608	115
256-608/333-000	121
256-608/334-000	119
256-609	115
256-609/333-000	121
256-609/334-000	119
256-610	115
256-610/333-000	121
256-610/334-000	119
256-612	115
256-612/333-000	121
256-612/334-000	119
256-661	117
256-700	113
256-740	113
256-742	113
256-743	113
256-744	113
256-746	113
256-747	113
256-750	113
256-752	113
256-753	113
256-754	113
256-756	113
256-757	113
256-760	113
256-762	113
256-763	113
256-764	113
256-766	113
256-767	113
256-800	113
256-840	117
256-842	117
256-843	117
256-844	117
256-846	117
256-847	117
256-850	117
256-852	117
256-853	117
256-854	117
256-856	117
256-857	117
256-860	117
256-862	117
256-863	117
256-864	117
256-866	117
256-867	117
257 Series	
257-100	123
257-200	123
257-300	123
257-400	123
257-401	123
257-402	125
257-402/333-000	131
257-403	125
257-403/333-000	131
257-404	125
257-404/333-000	131
257-405	125
257-405/333-000	131
257-406	125
257-406/333-000	131
257-407	125
257-407/333-000	131
257-408	125
257-408/333-000	131
257-409	125
257-409/333-000	131

Item No.	Page
257 Series	
257-410	125
257-410/333-000	131
257-412	125
257-412/333-000	131
257-451	127
257-452	129
257-453	129
257-454	129
257-455	129
257-456	129
257-457	129
257-458	129
257-459	129
257-460	129
257-462	129
257-500	123
257-501	123
257-502	125
257-502/333-000	131
257-503	125
257-503/333-000	131
257-504	125
257-504/333-000	131
257-505	125
257-505/333-000	131
257-506	125
257-506/333-000	131
257-507	125
257-507/333-000	131
257-508	125
257-508/333-000	131
257-509	125
257-509/333-000	131
257-510	125
257-510/333-000	131
257-512	125
257-512/333-000	131
257-551	127
257-552	129
257-553	129
257-554	129
257-555	129
257-556	129
257-557	129
257-558	129
257-559	129
257-560	129
257-562	129
257-600	123
257-601	123
257-602	125
257-602/333-000	131
257-603	125
257-603/333-000	131
257-604	125
257-604/333-000	131
257-605	125
257-605/333-000	131
257-606	125
257-606/333-000	131
257-607	125
257-607/333-000	131
257-608	125
257-608/333-000	131
257-609	125
257-609/333-000	131
257-610	125
257-610/333-000	131
257-612	125
257-612/333-000	131
257-651	127
257-652	129
257-653	129
257-654	129
257-655	129
257-656	129
257-657	129
257-658	129
257-659	129
257-660	129
257-662	129

Item No.	Page
257 Series	
257-700	123
257-740	123
257-742	123
257-743	123
257-744	123
257-746	123
257-747	123
257-750	123
257-752	123
257-753	123
257-754	123
257-756	123
257-757	123
257-760	123
257-762	123
257-763	123
257-764	123
257-766	123
257-767	123
257-801	123
257-811	123
257-821	123
257-840	127
257-842	127
257-843	127
257-844	127
257-846	127
257-847	127
257-850	127
257-852	127
257-853	127
257-854	127
257-856	127
257-857	127
257-860	127
257-862	127
257-863	127
257-864	127
257-866	127
257-867	127
280 Series	
280-402	251
280-432	539
280-433	539
280-434	539
280-435	539
280-436	539
280-437	539
280-438	539
280-439	539
280-440	539
288 Series	
288-001	858
288-002	858
288-003	858
288-600	856
288-601	856
288-602	856
288-620	856
288-621	856
288-622	856
288-626	857
288-627	857
709 Series	
709-196	857
713 Series	
713-126	444
713-127	444
713-128	444
713-129	444
713-130	444
713-1103	429
713-1103/037-000	429
713-1103/107-000	429
713-1104	429

Item No.	Page
713 Series	
713-1104/037-000	429
713-1104/107-000	429
713-1105	429
713-1105/037-000	429
713-1105/107-000	429
713-1106	429
713-1106/037-000	429
713-1106/107-000	429
713-1107	429
713-1107/037-000	429
713-1107/107-000	429
713-1108	429
713-1108/037-000	429
713-1108/107-000	429
713-1109	429
713-1109/037-000	429
713-1109/107-000	429
713-1110	429
713-1110/037-000	429
713-1110/107-000	429
713-1111	429
713-1111/037-000	429
713-1111/107-000	429
713-1112	429
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713-1112/107-000	429
713-1113	429
713-1113/037-000	429
713-1113/107-000	429
713-1114	429
713-1114/037-000	429
713-1114/107-000	429
713-1115	429
713-1115/037-000	429
713-1115/107-000	429
713-1116	429
713-1116/037-000	429
713-1116/107-000	429
713-1117	429
713-1117/037-000	429
713-1117/107-000	429
713-1118	429
713-1118/037-000	429
713-1118/107-000	429
713-1403	431
713-1403/037-000	432
713-1403/105-000	438
713-1403/105-000/997-405	438
713-1403/107-000	432
713-1403/116-000	442
713-1403/116-000/997-405	442
713-1403/117-000	440
713-1403/117-000/997-405	440
713-1404	431
713-1404/037-000	432
713-1404/105-000	438
713-1404/105-000/997-405	438
713-1404/107-000	432
713-1404/116-000	442
713-1404/116-000/997-406	442
713-1404/117-000	440
713-1404/117-000/997-406	440
713-1405	431
713-1405/037-000	432
713-1405/105-000	438
713-1405/105-000/997-405	438
713-1405/107-000	432
713-1405/116-000	442
713-1405/116-000/997-406	442
713-1405/117-000	440
713-1405/117-000/997-406	440
713-1406	431
713-1406/037-000	432
713-1406/105-000	438
713-1406/105-000/997-406	438
713-1406/107-000	432
713-1406/116-000	442
713-1406/116-000/997-406	442
713-1406/117-000	440
713-1406/117-000/997-406	440
713-1407	431

Item No.	Page
713 Series	
713-1407/037-000	432
713-1407/105-000	438
713-1407/105-000/997-406	438
713-1407/107-000	432
713-1407/116-000	442
713-1407/116-000/997-407	442
713-1407/117-000	440
713-1407/117-000/997-407	440
713-1408	431
713-1408/037-000	432
713-1408/105-000	438
713-1408/105-000/997-406	438
713-1408/107-000	432
713-1408/116-000	442
713-1408/116-000/997-407	442
713-1408/117-000	440
713-1408/117-000/997-407	440
713-1409	431
713-1409/037-000	432
713-1409/105-000	438
713-1409/105-000/997-407	438
713-1409/107-000	432
713-1409/116-000	442
713-1409/116-000/997-407	442
713-1409/117-000	440
713-1409/117-000/997-407	440
713-1410	431
713-1410/037-000	432
713-1410/105-000	438
713-1410/105-000/997-407	438
713-1410/107-000	432
713-1410/116-000	442
713-1410/116-000/997-408	442
713-1410/117-000	440
713-1410/117-000/997-408	440
713-1411	431
713-1411/037-000	432
713-1411/105-000	438
713-1411/105-000/997-407	438
713-1411/107-000	432
713-1411/116-000	442
713-1411/116-000/997-408	442
713-1411/117-000	440
713-1411/117-000/997-408	440
713-1412	431
713-1412/037-000	432
713-1412/105-000	438
713-1412/105-000/997-408	438
713-1412/107-000	432
713-1412/116-000	442
713-1412/116-000/997-408	442
713-1412/117-000	440
713-1412/117-000/997-408	440
713-1413	431
713-1413/037-000	432
713-1413/105-000	438
713-1413/105-000/997-408	438
713-1413/107-000	432
713-1413/116-000	442
713-1413/116-000/997-408	442
713-1413/117-000	440
713-1413/117-000/997-408	440
713-1414	431
713-1414/037-000	432
713-1414/105-000	438
713-1414/105-000/997-408	438
713-1414/107-000	432
713-1414/116-000	442
713-1414/116-000/997-408	442
713-1414/117-000	440
713-1414/117-000/997-408	440
713-1415	431
713-1415/037-000	432
713-1415/105-000	438
713-1415/105-000/997-408	438
713-1415/107-000	432
713-1415/116-000	442
713-1415/116-000/997-409	442
713-1415/117-000	440
713-1415/117-000/997-409	440
713-1416	431

Item No.	Page
713 Series	
713-1416/037-000	432
713-1416/105-000	438
713-1416/105-000/997-408	438
713-1416/107-000	432
713-1416/116-000	442
713-1416/116-000/997-409	442
713-1416/117-000	440
713-1416/117-000/997-409	440
713-1417	431
713-1417/037-000	432
713-1417/105-000	438
713-1417/105-000/997-409	438
713-1417/107-000	432
713-1417/116-000	442
713-1417/116-000/997-409	442
713-1417/117-000	440
713-1417/117-000/997-409	440
713-1418	431
713-1418/037-000	432
713-1418/105-000	438
713-1418/105-000/997-409	438
713-1418/107-000	432
713-1418/116-000	442
713-1418/116-000/997-409	442
713-1418/117-000	440
713-1418/117-000/997-409	440
713-1423	431
713-1423/037-000	432
713-1423/105-000	437
713-1423/105-000/997-405	437
713-1423/107-000	431
713-1423/116-000	441
713-1423/116-000/997-405	441
713-1423/117-000	439
713-1423/117-000/997-405	439
713-1424	431
713-1424/037-000	432
713-1424/105-000	437
713-1424/105-000/997-405	437
713-1424/107-000	431
713-1424/116-000	441
713-1424/116-000/997-406	441
713-1424/117-000	439
713-1424/117-000/997-406	439
713-1425	431
713-1425/037-000	432
713-1425/105-000	437
713-1425/105-000/997-405	437
713-1425/107-000	431
713-1425/116-000	441
713-1425/116-000/997-406	441
713-1425/117-000	439
713-1425/117-000/997-406	439
713-1426	431
713-1426/037-000	432
713-1426/105-000	437
713-1426/105-000/997-406	437
713-1426/107-000	431
713-1426/116-000	441
713-1426/116-000/997-406	441
713-1426/117-000	439
713-1426/117-000/997-406	439
713-1427	431
713-1427/037-000	432
713-1427/105-000	437
713-1427/105-000/997-406	437
713-1427/107-000	431
713-1427/116-000	441
713-1427/116-000/997-407	441
713-1427/117-000	439
713-1427/117-000/997-407	439
713-1428	431
713-1428/037-000	432
713-1428/105-000	437
713-1428/105-000/997-406	437
713-1428/107-000	431
713-1428/116-000	441
713-1428/116-000/997-407	441
713-1428/117-000	439
713-1428/117-000/997-407	439
713-1429	431

Item No.	Page
713 Series	
713-1429/037-000	432
713-1429/105-000	437
713-1429/105-000/997-407	437
713-1429/107-000	431
713-1429/116-000	441
713-1429/116-000/997-407	441
713-1429/117-000	439
713-1429/117-000/997-407	439
713-1430	431
713-1430/037-000	432
713-1430/105-000	437
713-1430/105-000/997-407	437
713-1430/107-000	431
713-1430/116-000	441
713-1430/116-000/997-408	441
713-1430/117-000	439
713-1430/117-000/997-408	439
713-1431	431
713-1431/037-000	432
713-1431/105-000	437
713-1431/105-000/997-407	437
713-1431/107-000	431
713-1431/116-000	441
713-1431/116-000/997-408	441
713-1431/117-000	439
713-1431/117-000/997-408	439
713-1432	431
713-1432/037-000	432
713-1432/105-000	437
713-1432/105-000/997-408	437
713-1432/107-000	431
713-1432/116-000	441
713-1432/116-000/997-408	441
713-1432/117-000	439
713-1432/117-000/997-408	439
713-1433	431
713-1433/037-000	432
713-1433/105-000	437
713-1433/105-000/997-408	437
713-1433/107-000	431
713-1433/116-000	441
713-1433/116-000/997-408	441
713-1433/117-000	439
713-1433/117-000/997-408	439
713-1434	431
713-1434/037-000	432
713-1434/105-000	437
713-1434/105-000/997-408	437
713-1434/107-000	431
713-1434/116-000	441
713-1434/116-000/997-408	441
713-1434/117-000	439
713-1434/117-000/997-408	439
713-1435	431
713-1435/037-000	432
713-1435/105-000	437
713-1435/105-000/997-408	437
713-1435/107-000	431
713-1435/116-000	441
713-1435/116-000/997-409	441
713-1435/117-000	439
713-1435/117-000/997-409	439
713-1436	431
713-1436/037-000	432
713-1436/105-000	437
713-1436/105-000/997-408	437
713-1436/107-000	431
713-1436/116-000	441
713-1436/116-000/997-409	441
713-1436/117-000	439
713-1436/117-000/997-409	439
713-1437	431
713-1437/037-000	432
713-1437/105-000	437
713-1437/105-000/997-409	437
713-1437/107-000	431
713-1437/116-000	441
713-1437/116-000/997-409	441
713-1437/117-000	439
713-1437/117-000/997-409	439
713-1438	431

Item No.	Page
713 Series	
713-1438/037-000	432
713-1438/105-000	437
713-1438/105-000/997-409	437
713-1438/107-000	431
713-1438/116-000	441
713-1438/116-000/997-409	441
713-1438/117-000	439
713-1438/117-000/997-409	439
714 Series	
714-101	444
714-102	453
714-103	453
714-104	453
714-105	453
714-106	453
714-108	453
714-110	453
714-112	453
714-114	453
714-115	453
714-116	453
714-132	455
714-133	455
714-134	455
714-135	455
714-136	455
714-138	455
714-140	455
714-142	455
714-144	455
714-145	455
714-146	455
714-162	455
714-163	455
714-164	455
714-165	455
714-166	455
714-168	455
714-170	455
714-172	455
714-174	455
714-175	455
714-176	455
721 Series	
721-102/008-000	464
721-102/026-000	463
721-102/031-000	463
721-102/037-000	463
721-103/008-000	464
721-103/026-000	463
721-103/031-000	463
721-103/037-000	463
721-104/008-000	464
721-104/026-000	463
721-104/031-000	463
721-104/037-000	463
721-105/008-000	464
721-105/026-000	463
721-105/031-000	463
721-105/037-000	463
721-106/008-000	464
721-106/026-000	463
721-106/027-000	464
721-106/031-000	463
721-106/037-000	463
721-107/008-000	464
721-107/026-000	463
721-107/027-000	464
721-107/031-000	463
721-107/037-000	463
721-108/008-000	464
721-108/026-000	463
721-108/027-000	464
721-108/031-000	463
721-108/037-000	463
721-109/008-000	464
721-109/026-000	463
721-109/027-000	464
721-109/031-000	463

Item Number Index

Item No.	Page
721 Series	
721-109/037-000	463
721-110/008-000	464
721-110/026-000	463
721-110/027-000	464
721-110/031-000	463
721-110/037-000	463
721-111/008-000	464
721-111/026-000	463
721-111/027-000	464
721-111/031-000	463
721-111/037-000	463
721-112/008-000	464
721-112/026-000	463
721-112/027-000	464
721-112/031-000	463
721-112/037-000	463
721-113/008-000	464
721-113/026-000	463
721-113/027-000	464
721-113/031-000	463
721-113/037-000	463
721-114/008-000	464
721-114/026-000	463
721-114/027-000	464
721-114/031-000	463
721-114/037-000	463
721-115/008-000	464
721-115/026-000	463
721-115/027-000	464
721-115/031-000	463
721-115/037-000	463
721-116/008-000	464
721-116/026-000	463
721-116/027-000	464
721-116/031-000	463
721-116/037-000	463
721-120/008-000	464
721-120/026-000	463
721-120/027-000	464
721-120/031-000	463
721-120/037-000	463
721-132/001-000	491
721-133/001-000	491
721-133/001-040	495
721-134/001-000	491
721-134/001-040	495
721-135/001-000	491
721-135/001-040	495
721-136/001-000	491
721-137/001-000	491
721-138/001-000	491
721-139/001-000	491
721-140/001-000	491
721-141/001-000	491
721-142/001-000	491
721-143/001-000	491
721-144/001-000	491
721-145/001-000	491
721-146/001-000	491
721-150/001-000	491
721-162/001-000	493
721-162/003-000	503
721-163/001-000	493
721-163/001-040	497
721-163/003-000	503
721-164/001-000	493
721-164/001-040	497
721-164/003-000	503
721-165/001-000	493
721-165/001-040	497
721-165/003-000	503
721-166/001-000	493
721-166/003-000	503
721-167/001-000	493
721-167/003-000	503
721-168/001-000	493
721-168/003-000	503
721-169/001-000	493
721-169/003-000	503
721-170/001-000	493
721-170/003-000	503

Item No.	Page
721 Series	
721-171/001-000	493
721-171/003-000	503
721-172/001-000	493
721-172/003-000	503
721-173/001-000	493
721-173/003-000	503
721-174/001-000	493
721-174/003-000	503
721-175/001-000	493
721-175/003-000	503
721-176/001-000	493
721-176/003-000	503
721-180/001-000	493
721-180/003-000	503
721-202/008-000	506
721-202/026-000	505
721-202/031-000	505
721-202/037-000	505
721-203/008-000	506
721-203/026-000	505
721-203/031-000	505
721-203/037-000	505
721-204/008-000	506
721-204/026-000	505
721-204/031-000	505
721-204/037-000	505
721-205/008-000	506
721-205/026-000	505
721-205/031-000	505
721-205/037-000	505
721-206/008-000	506
721-206/026-000	505
721-206/027-000	506
721-206/031-000	505
721-206/037-000	505
721-207/008-000	506
721-207/026-000	505
721-207/031-000	505
721-207/037-000	505
721-208/008-000	506
721-208/026-000	505
721-208/027-000	506
721-208/031-000	505
721-208/037-000	505
721-209/008-000	506
721-209/026-000	505
721-209/027-000	506
721-209/031-000	505
721-209/037-000	505
721-210/008-000	506
721-210/026-000	505
721-210/031-000	505
721-210/037-000	505
721-211/008-000	506
721-211/026-000	505
721-212/008-000	506
721-212/026-000	505
721-212/027-000	506
721-212/031-000	505
721-212/037-000	505
721-232/001-000	531
721-233/001-000	531
721-233/001-040	535
721-234/001-000	531
721-234/001-040	535
721-235/001-000	531
721-235/001-040	535
721-236/001-000	531
721-237/001-000	531
721-238/001-000	531
721-239/001-000	531
721-240/001-000	531
721-241/001-000	531
721-242/001-000	531
721-262/001-000	533
721-263/001-000	533
721-263/001-040	537
721-264/001-000	533
721-264/001-040	537
721-265/001-000	533
721-265/001-040	537

Item No.	Page
721 Series	
721-266/001-000	533
721-267/001-000	533
721-268/001-000	533
721-269/001-000	533
721-270/001-000	533
721-271/001-000	533
721-272/001-000	533
721-302/008-000	469
721-302/031-000	469
721-303/008-000	469
721-303/031-000	469
721-304/008-000	469
721-304/031-000	469
721-305/008-000	469
721-305/031-000	469
721-306/008-000	469
721-306/031-000	469
721-307/008-000	469
721-307/031-000	469
721-308/008-000	469
721-308/031-000	469
721-309/008-000	469
721-309/031-000	469
721-310/008-000	469
721-310/031-000	469
721-311/008-000	469
721-311/031-000	469
721-312/008-000	469
721-312/031-000	469
721-313/008-000	469
721-313/031-000	469
721-314/008-000	469
721-314/031-000	469
721-315/008-000	469
721-315/031-000	469
721-316/008-000	469
721-316/031-000	469
721-320/008-000	469
721-320/031-000	469
721-332/008-000	509
721-332/031-000	509
721-333/008-000	509
721-333/031-000	509
721-334/008-000	509
721-334/031-000	509
721-335/008-000	509
721-335/031-000	509
721-336/031-000	509
721-337/008-000	509
721-337/031-000	509
721-338/008-000	509
721-338/031-000	509
721-339/008-000	509
721-339/031-000	509
721-340/008-000	509
721-340/031-000	509
721-341/008-000	509
721-341/031-000	509
721-342/008-000	509
721-342/031-000	509
721-432/001-000	491
721-433/001-000	491
721-433/001-040	495
721-434/001-000	491
721-434/001-040	495
721-435/001-000	491
721-435/001-040	495
721-436/001-000	491
721-437/001-000	491
721-438/001-000	491
721-439/001-000	491
721-440/001-000	491
721-441/001-000	491
721-442/001-000	491
721-443/001-000	491
721-444/001-000	491
721-445/001-000	491
721-446/001-000	491
721-450/001-000	491
721-462/001-000	493
721-463/001-000	493

Item No.	Page
721 Series	
721-463/001-040	497
721-464/001-000	493
721-464/001-040	497
721-465/001-000	493
721-465/001-040	497
721-466/001-000	493
721-467/001-000	493
721-468/001-000	493
721-469/001-000	493
721-470/001-000	493
721-471/001-000	493
721-472/001-000	493
721-473/001-000	493
721-474/001-000	493
721-475/001-000	493
721-476/001-000	493
721-480/001-000	493
721-602	477
721-602/018-000	478
721-602/019-000	477
721-602/114-000	477
721-603	477
721-603/000-042	481
721-603/018-000	478
721-603/018-042	482
721-603/019-000	477
721-603/019-042	481
721-603/114-000	477
721-603/114-042	481
721-604	477
721-604/000-042	481
721-604/018-000	478
721-604/018-042	482
721-604/018-042/033-000	482
721-604/019-000	477
721-604/019-042	481
721-604/114-000	477
721-604/114-042	481
721-605	477
721-605/000-042	481
721-605/018-000	478
721-605/018-042	482
721-605/019-000	477
721-605/019-042	481
721-605/114-000	477
721-605/114-042	481
721-606	477
721-606/018-000	478
721-606/019-000	477
721-606/114-000	477
721-607	477
721-607/018-000	478
721-607/019-000	477
721-607/114-000	477
721-608	477
721-608/018-000	478
721-608/019-000	477
721-608/114-000	477
721-609	477
721-609/018-000	478
721-609/019-000	477
721-609/114-000	477
721-610	477
721-610/018-000	478
721-610/019-000	477
721-610/114-000	477
721-611	477
721-611/018-000	478
721-611/019-000	477
721-611/114-000	477
721-612	477
721-612/018-000	478
721-612/019-000	477
721-612/114-000	477
721-613	477
721-613/018-000	478
721-613/019-000	477
721-613/114-000	477
721-614	477
721-614/018-000	478
721-614/019-000	477

Item No.	Page
721 Series	
721-614/114-000	477
721-615	477
721-615/018-000	478
721-615/019-000	477
721-615/114-000	477
721-616	477
721-616/018-000	478
721-616/019-000	477
721-616/114-000	477
721-620	477
721-620/018-000	478
721-620/019-000	477
721-620/114-000	477
721-832/001-000	531
721-833/001-000	531
721-833/001-040	535
721-834/001-000	531
721-834/001-040	535
721-835/001-000	531
721-835/001-040	535
721-836/001-000	531
721-837/001-000	531
721-838/001-000	531
721-839/001-000	531
721-840/001-000	531
721-841/001-000	531
721-842/001-000	531
721-862/001-000	533
721-863/001-000	533
721-863/001-040	537
721-864/001-000	533
721-864/001-040	537
721-865/001-000	533
721-865/001-040	537
721-866/001-000	533
721-867/001-000	533
721-868/001-000	533
721-869/001-000	533
721-870/001-000	533
721-871/001-000	533
721-872/001-000	533
721-2102/026-000	471
721-2102/037-000	471
721-2103/026-000	471
721-2103/037-000	471
721-2104/026-000	471
721-2104/037-000	471
721-2105/026-000	471
721-2105/037-000	471
721-2106/026-000	471
721-2106/037-000	471
721-2107/026-000	471
721-2107/037-000	471
721-2108/026-000	471
721-2108/037-000	471
721-2109/026-000	471
721-2109/037-000	471
721-2110/026-000	471
721-2110/037-000	471
721-2111/026-000	471
721-2111/037-000	471
721-2112/026-000	471
721-2112/037-000	471
721-2113/026-000	471
721-2113/037-000	471
721-2114/026-000	471
721-2114/037-000	471
721-2115/026-000	471
721-2115/037-000	471
721-2116/026-000	471
721-2116/037-000	471
721-2202/026-000	511
721-2202/037-000	511
721-2203/026-000	511
721-2203/037-000	511
721-2204/026-000	511
721-2204/037-000	511
721-2205/026-000	511
721-2205/037-000	511
721-2206/026-000	511
721-2206/037-000	511

Item No.	Page
721 Series	
721-2207/026-000	511
721-2207/037-000	511
721-2208/026-000	511
721-2208/037-000	511
721-2209/026-000	511
721-2209/037-000	511
721-2210/026-000	511
721-2210/037-000	511
721-2211/026-000	511
721-2211/037-000	511
721-2212/026-000	511
721-2212/037-000	511
722 Series	
722-102/026-000	467
722-103/026-000	467
722-104/026-000	467
722-105/026-000	467
722-106/026-000	467
722-107/026-000	467
722-108/026-000	467
722-109/026-000	467
722-110/026-000	467
722-111/026-000	467
722-112/026-000	467
722-114/026-000	467
722-116/026-000	467
722-120/026-000	467
722-132	485
722-132/005-000	499
722-132/005-000/039-000	500
722-132/031-000	487
722-132/039-000	486
722-132/047-000	488
722-133	485
722-133/005-000	499
722-133/005-000/039-000	500
722-133/031-000	487
722-133/039-000	486
722-133/047-000	488
722-134	485
722-134/005-000	499
722-134/005-000/039-000	500
722-134/031-000	487
722-134/039-000	486
722-134/047-000	488
722-135	485
722-135/005-000	499
722-135/005-000/039-000	500
722-135/031-000	487
722-135/039-000	486
722-135/047-000	488
722-136	485
722-136/005-000	499
722-136/005-000/039-000	500
722-136/031-000	487
722-136/039-000	486
722-136/047-000	488
722-137	485
722-137/005-000	499
722-137/005-000/039-000	500
722-137/031-000	487
722-137/039-000	486
722-137/047-000	488
722-138	485
722-138/005-000	499
722-138/005-000/039-000	500
722-138/031-000	487
722-138/039-000	486
722-138/047-000	488
722-139	485
722-139/005-000	499
722-139/005-000/039-000	500
722-139/031-000	487
722-139/039-000	486
722-139/047-000	488
722-140	485
722-140/005-000	499
722-140/005-000/039-000	500
722-140/031-000	487
722-140/039-000	486

Item No.	Page
722 Series	
722-140/047-000	488
722-141	485
722-141/005-000	499
722-141/005-000/039-000	500
722-141/031-000	487
722-141/039-000	486
722-141/047-000	488
722-142	485
722-142/005-000	499
722-142/005-000/039-000	500
722-142/031-000	487
722-142/039-000	486
722-142/047-000	488
722-143	485
722-143/005-000	499
722-143/031-000	487
722-143/039-000	486
722-143/047-000	488
722-144	485
722-144/005-000	499
722-144/005-000/039-000	500
722-144/031-000	487
722-144/039-000	486
722-144/047-000	488
722-145	485
722-145/005-000	499
722-145/031-000	487
722-145/039-000	486
722-145/047-000	488
722-146	485
722-146/005-000	499
722-146/005-000/039-000	500
722-146/031-000	487
722-146/039-000	486
722-146/047-000	488
722-150	485
722-150/005-000	499
722-150/005-000/039-000	500
722-150/031-000	487
722-150/039-000	486
722-150/047-000	488
722-202/026-000	467
722-203/026-000	467
722-204/026-000	467
722-205/026-000	467
722-206/026-000	467
722-207/026-000	467
722-208/026-000	467
722-209/026-000	467
722-210/026-000	467
722-211/026-000	467
722-212/026-000	467
722-213/026-000	467
722-214/026-000	467
722-215/026-000	467
722-216/026-000	467
722-220/026-000	467
722-232	485
722-232/005-000	499
722-232/005-000/039-000	499
722-232/031-000	487
722-232/039-000	485
722-232/047-000	488
722-233	485
722-233/005-000	499
722-233/005-000/039-000	499
722-233/031-000	487
722-233/039-000	485
722-233/047-000	488
722-234	485
722-234/005-000	499
722-234/005-000/039-000	499
722-234/031-000	487
722-234/039-000	485
722-234/047-000	488
722-235	485
722-235/005-000	499
722-235/005-000/039-000	499
722-235/031-000	487
722-235/039-000	485
722-235/047-000	488

Item No.	Page
722 Series	
722-236	485
722-236/005-000	499
722-236/005-000/039-000	499
722-236/031-000	487
722-236/039-000	485
722-236/047-000	488
722-237	485
722-237/005-000	499
722-237/005-000/039-000	499
722-237/031-000	487
722-237/039-000	485
722-237/047-000	488
722-238	485
722-238/005-000	499
722-238/005-000/039-000	499
722-238/031-000	487
722-238/039-000	485
722-238/047-000	488
722-239	485
722-239/005-000	499
722-239/005-000/039-000	499
722-239/031-000	487
722-239/039-000	485
722-239/047-000	488
722-240	485
722-240/005-000	499
722-240/005-000/039-000	499
722-240/031-000	487
722-240/039-000	485
722-240/047-000	488
722-241	485
722-241/005-000	499
722-241/005-000/039-000	499
722-241/031-000	487
722-241/039-000	485
722-241/047-000	488
722-242	485
722-242/005-000	499
722-242/005-000/039-000	499
722-242/031-000	487
722-242/039-000	485
722-242/047-000	488
722-243	485
722-243/005-000	499
722-243/031-000	487
722-243/039-000	485
722-243/047-000	488
722-244	485
722-244/005-000	499
722-244/005-000/039-000	499
722-244/031-000	487
722-244/039-000	485
722-244/047-000	488
722-245	485
722-245/005-000	499
722-245/031-000	487
722-245/039-000	485
722-245/047-000	488
722-246	485
722-246/005-000	499
722-246/005-000/039-000	499
722-246/031-000	487
722-246/039-000	485
722-246/047-000	488
722-250	485
722-250/005-000	499
722-250/005-000/039-000	499
722-250/031-000	487
722-250/039-000	485
722-250/047-000	488
722-732	525
722-732/031-000	527
722-732/039-000	526
722-732/047-000	528
722-733	525
722-733/031-000	527
722-733/039-000	526
722-733/047-000	528
722-734	525
722-734/031-000	527
722-734/039-000	526

Item Number Index

Item No.	Page
722 Series	
722-734/047-000	528
722-735	525
722-735/031-000	527
722-735/039-000	526
722-735/047-000	528
722-736	525
722-736/031-000	527
722-736/039-000	526
722-736/047-000	528
722-737	525
722-737/031-000	527
722-737/039-000	526
722-737/047-000	528
722-738	525
722-738/031-000	527
722-738/039-000	526
722-738/047-000	528
722-739	525
722-739/031-000	527
722-739/039-000	526
722-739/047-000	528
722-740	525
722-740/031-000	527
722-740/039-000	526
722-740/047-000	528
722-741	525
722-741/031-000	527
722-741/039-000	526
722-741/047-000	528
722-742	525
722-742/031-000	527
722-742/039-000	526
722-742/047-000	528
722-832	525
722-832/031-000	527
722-832/039-000	525
722-832/047-000	528
722-833	525
722-833/031-000	527
722-833/039-000	525
722-833/047-000	528
722-834	525
722-834/031-000	527
722-834/039-000	525
722-834/047-000	528
722-835	525
722-835/031-000	527
722-835/039-000	525
722-835/047-000	528
722-836	525
722-836/031-000	527
722-836/039-000	525
722-836/047-000	528
722-837	525
722-837/031-000	527
722-837/039-000	525
722-837/047-000	528
722-838	525
722-838/031-000	527
722-838/039-000	525
722-838/047-000	528
722-839	525
722-839/031-000	527
722-839/039-000	525
722-839/047-000	528
722-840	525
722-840/031-000	527
722-840/039-000	525
722-840/047-000	528
722-841/031-000	527
722-841/039-000	525
722-841/047-000	528
722-842	525
722-842/031-000	527
722-842/039-000	525
722-842/047-000	528
723 Series	
723-602	517
723-602/018-000	518
723-602/019-000	517

Item No.	Page
723 Series	
723-602/114-000	517
723-603	517
723-603/000-042	521
723-603/018-000	518
723-603/018-042	522
723-603/019-000	517
723-603/019-042	521
723-603/114-000	517
723-603/114-042	521
723-604	517
723-604/000-042	521
723-604/018-000	518
723-604/018-042	522
723-604/019-000	517
723-604/019-042	521
723-604/114-000	517
723-604/114-042	521
723-605	517
723-605/000-042	521
723-605/018-000	518
723-605/018-042	522
723-605/019-000	517
723-605/019-042	521
723-605/114-000	517
723-605/114-042	521
723-606	517
723-606/018-000	518
723-606/019-000	517
723-606/114-000	517
723-607	517
723-607/018-000	518
723-607/019-000	517
723-607/114-000	517
723-608	517
723-608/018-000	518
723-608/019-000	517
723-608/114-000	517
723-609	517
723-609/018-000	518
723-609/019-000	517
723-609/114-000	517
723-610	517
723-610/018-000	518
723-610/019-000	517
723-610/114-000	517
723-611	517
723-611/018-000	518
723-611/019-000	517
723-611/114-000	517
723-612	517
723-612/018-000	518
723-612/019-000	517
723-612/114-000	517
730 Series	
730-103	839
730-106	843
730-113	841
730-116	845
730-123	839
730-126	843
731 Series	
731-132	831
731-133	831
731-134	831
731-135	831
731-136/048-000	831
731-137/048-000	831
731-138/048-000	831
731-139/048-000	831
731-140/048-000	831
731-141/048-000	831
731-142/048-000	831
731-162	833
731-163	833
731-164	833
731-165	833
731-166/048-000	833
731-167/048-000	833

Item No.	Page
731 Series	
731-168/048-000	833
731-169/048-000	833
731-170/048-000	833
731-171/048-000	833
731-172/048-000	833
731-502/008-000	568
731-502/031-000	567
731-503/008-000	568
731-503/031-000	567
731-504/008-000	568
731-504/031-000	567
731-505/008-000	568
731-505/031-000	567
731-506/008-000	568
731-506/031-000	567
731-507/008-000	568
731-507/031-000	567
731-508/008-000	568
731-508/031-000	567
731-509/008-000	568
731-509/031-000	567
731-510/008-000	568
731-510/031-000	567
731-511/008-000	568
731-511/031-000	567
731-512/008-000	568
731-512/031-000	567
731-513/008-000	568
731-513/031-000	567
731-514/008-000	568
731-514/031-000	567
731-515/008-000	568
731-515/031-000	567
731-516/008-000	568
731-516/031-000	567
731-517/008-000	568
731-517/031-000	567
731-518/008-000	568
731-518/031-000	567
731-519/008-000	568
731-519/031-000	567
731-520/008-000	568
731-520/031-000	567
731-532/008-000	660
731-532/031-000	659
731-533/008-000	660
731-533/031-000	659
731-534/008-000	660
731-534/031-000	659
731-535/008-000	660
731-535/031-000	659
731-536/008-000	660
731-536/031-000	659
731-537/008-000	660
731-537/031-000	659
731-538/008-000	660
731-538/031-000	659
731-539/008-000	660
731-539/031-000	659
731-540/008-000	660
731-540/031-000	659
731-541/008-000	660
731-541/031-000	659
731-542/008-000	660
731-542/031-000	659
731-543/008-000	660
731-543/031-000	659
731-546/008-000	660
731-546/031-000	659
731-602	669
731-602/018-000	671
731-602/019-000	669
731-602/114-000	670
731-603	669
731-603/018-000	671
731-603/019-000	669
731-603/114-000	670
731-604	669
731-604/018-000	671
731-604/019-000	669
731-604/114-000	670

Item No.	Page
731 Series	
731-605	669
731-605/018-000	671
731-605/019-000	669
731-605/114-000	670
731-606	669
731-606/018-000	671
731-606/019-000	669
731-606/114-000	670
731-607	669
731-607/018-000	671
731-607/019-000	669
731-607/114-000	670
731-608	669
731-608/018-000	671
731-608/019-000	669
731-608/114-000	670
731-609	669
731-609/018-000	671
731-609/019-000	669
731-609/114-000	670
731-610	669
731-610/018-000	671
731-610/019-000	669
731-610/114-000	670
731-611	669
731-611/018-000	671
731-611/019-000	669
731-611/114-000	670
731-612	669
731-612/018-000	671
731-612/019-000	669
731-612/114-000	670
731-613	669
731-613/018-000	671
731-613/019-000	669
731-613/114-000	670
731-616	669
731-616/018-000	671
731-616/019-000	669
731-616/114-000	670
731-632	709
731-632/018-000	711
731-632/019-000	709
731-632/114-000	710
731-633	709
731-633/018-000	711
731-633/019-000	709
731-633/114-000	710
731-634	709
731-634/018-000	711
731-634/019-000	709
731-634/114-000	710
731-635	709
731-635/018-000	711
731-635/019-000	709
731-635/114-000	710
731-636	709
731-636/018-000	711
731-636/019-000	709
731-636/114-000	710
731-637	709
731-637/018-000	711
731-637/019-000	709
731-637/114-000	710
731-638	709
731-638/018-000	711
731-638/019-000	709
731-638/114-000	710
731-639	709
731-639/018-000	711
731-639/019-000	709
731-639/114-000	710
731-640	709
731-640/018-000	711
731-640/019-000	709
731-640/114-000	710
731-641	709
731-641/018-000	711
731-641/019-000	709
731-641/114-000	710
731-642	709

Item No.	Page
731 Series	
731-642/018-000	711
731-642/019-000	709
731-642/114-000	710
732 Series	
732-102/026-000	657
732-103/026-000	657
732-104/026-000	657
732-105/026-000	657
732-106/026-000	657
732-107/026-000	657
732-108/026-000	657
732-109/026-000	657
732-110/026-000	657
732-111/026-000	657
732-112/026-000	657
732-116/026-000	657
732-122/026-000	701
732-123/026-000	701
732-124/026-000	701
732-125/026-000	701
732-126/026-000	701
732-127/026-000	701
732-128/026-000	701
732-129/026-000	701
732-130/026-000	701
732-131/026-000	701
732-132/026-000	701
733 Series	
733-102	341
733-102/037-000	341
733-103	341
733-103/037-000	341
733-104	341
733-104/037-000	341
733-105	341
733-105/037-000	341
733-106	341
733-106/037-000	341
733-107	341
733-107/037-000	341
733-108	341
733-108/037-000	341
733-109	341
733-109/037-000	341
733-110	341
733-110/037-000	341
733-112	341
733-112/037-000	341
733-130	352
733-191	352
733-202	343
733-203	343
733-204	343
733-205	343
733-206	343
733-207	343
733-208	343
733-209	343
733-210	343
733-212	343
733-330	352
733-331	352
733-332	345
733-332/105-604	350
733-332/105-604/997-446	350
733-333	345
733-333/105-604	350
733-333/105-604/997-446	350
733-334	345
733-334/105-604	350
733-334/105-604/997-446	350
733-335	345
733-335/105-604	350
733-335/105-604/997-446	350
733-336	345
733-336/105-604	350
733-336/105-604/997-446	350

Item No.	Page
733 Series	
733-337	345
733-337/105-604	350
733-337/105-604/997-446	350
733-338	345
733-338/105-604	350
733-338/105-604/997-446	350
733-339	345
733-339/105-604	350
733-339/105-604/997-446	350
733-340	345
733-340/105-604	350
733-340/105-604/997-446	350
733-342	345
733-342/105-604	350
733-342/105-604/997-446	350
733-362	345
733-362/105-604	349
733-362/105-604/997-406	349
733-363	345
733-363/105-604	349
733-363/105-604/997-406	349
733-364	345
733-364/105-604	349
733-364/105-604/997-406	349
733-365	345
733-365/105-604	349
733-365/105-604/997-406	349
733-366	345
733-366/105-604	349
733-366/105-604/997-406	349
733-367	345
733-367/105-604	349
733-367/105-604/997-406	349
733-368	345
733-368/105-604/997-406	349
733-369	345
733-369/105-604	349
733-369/105-604/997-406	349
733-370/105-604	349
733-370/105-604/997-406	349
733-372	345
733-372/105-604	349
733-372/105-604/997-406	349
734 Series	
734-102	361
734-102/008-000	362
734-102/037-000	361
734-102/107-000	361
734-103	361
734-103/008-000	362
734-103/037-000	361
734-103/107-000	361
734-104	361
734-104/008-000	362
734-104/037-000	361
734-104/107-000	361
734-105	361
734-105/008-000	362
734-105/037-000	361
734-105/107-000	361
734-106	361
734-106/008-000	362
734-106/037-000	361
734-106/107-000	361
734-107	361
734-107/008-000	362
734-107/037-000	361
734-107/107-000	361
734-108	361
734-108/008-000	362
734-108/037-000	361
734-108/107-000	361
734-109	361
734-109/008-000	362
734-109/037-000	361
734-109/107-000	361
734-110	361
734-110/008-000	362
734-110/037-000	361

Item No.	Page
734 Series	
734-110/107-000	361
734-111	361
734-111/008-000	362
734-111/037-000	361
734-111/107-000	361
734-112	361
734-112/008-000	362
734-112/037-000	361
734-112/107-000	361
734-113	361
734-113/008-000	362
734-113/037-000	361
734-113/107-000	361
734-114	361
734-114/008-000	362
734-114/037-000	361
734-114/107-000	361
734-116	361
734-116/008-000	362
734-116/037-000	361
734-116/107-000	361
734-118	361
734-118/008-000	362
734-118/037-000	361
734-118/107-000	361
734-120	361
734-120/008-000	362
734-120/037-000	361
734-120/107-000	361
734-124	361
734-124/008-000	362
734-124/037-000	361
734-124/107-000	361
734-126	417
734-127	353
734-128	353
734-129	353
734-130	416
734-132	381
734-132/105-604	388
734-132/108-000	382
734-133	381
734-133/105-604	388
734-133/105-604/997-405	388
734-133/108-000	382
734-134	381
734-134/105-604	388
734-134/105-604/997-405	388
734-134/108-000	382
734-135	381
734-135/105-604	388
734-135/105-604/997-405	388
734-135/108-000	382
734-136	381
734-136/105-604	388
734-136/105-604/997-407	388
734-136/108-000	382
734-137	381
734-137/105-604	388
734-137/105-604/997-407	388
734-137/108-000	382
734-138	381
734-138/105-604	388
734-138/105-604/997-407	388
734-138/108-000	382
734-139	381
734-139/105-604	388
734-139/105-604/997-407	388
734-139/108-000	382
734-140	381
734-140/105-604	388
734-140/105-604/997-407	388
734-140/108-000	382
734-141	381
734-141/105-604	388
734-141/105-604/997-407	388
734-141/108-000	382
734-142	381
734-142/105-604	388
734-142/105-604/997-407	388
734-142/108-000	382

Item No.	Page
734 Series	
734-143	381
734-143/108-000	382
734-144	381
734-144/105-604	388
734-144/105-604/997-408	388
734-144/108-000	382
734-146	381
734-146/105-604	388
734-146/105-604/997-408	388
734-146/108-000	382
734-148	381
734-148/108-000	382
734-150	381
734-150/108-000	382
734-154	381
734-154/108-000	382
734-159	416
734-162	381
734-162/105-604	387
734-162/105-604/997-405	387
734-162/108-000	382
734-163	381
734-163/105-604	387
734-163/105-604/997-405	387
734-163/108-000	382
734-164	381
734-164/105-604	387
734-164/105-604/997-405	387
734-164/108-000	382
734-165	381
734-165/105-604	387
734-165/105-604/997-405	387
734-165/108-000	382
734-166	381
734-166/105-604	387
734-166/105-604/997-407	387
734-166/108-000	382
734-167	381
734-167/105-604	387
734-167/105-604/997-407	387
734-167/108-000	382
734-168	381
734-168/105-604	387
734-168/105-604/997-407	387
734-168/108-000	382
734-169	381
734-169/105-604	387
734-169/105-604/997-407	387
734-169/108-000	382
734-170	381
734-170/105-604	387
734-170/105-604/997-407	387
734-170/108-000	382
734-171	381
734-171/105-604	387
734-171/105-604/997-407	387
734-171/108-000	382
734-172	381
734-172/105-604	387
734-172/105-604/997-407	387
734-172/108-000	382
734-173	381
734-173/108-000	382
734-174	381
734-174/105-604	387
734-174/105-604/997-408	387
734-174/108-000	382
734-176	381
734-176/105-604	387
734-176/105-604/997-408	387
734-176/108-000	382
734-178	381
734-178/108-000	382
734-180	381
734-180/108-000	382
734-184	381
734-184/108-000	382
734-190	414
734-202	391
734-202/008-000	392
734-202/037-000	391

Item Number Index

Item No.	Page
734 Series	
734-203	391
734-203/008-000	392
734-203/037-000	391
734-204	391
734-204/008-000	392
734-204/037-000	391
734-205	391
734-205/008-000	392
734-205/037-000	391
734-206	391
734-206/008-000	392
734-206/037-000	391
734-208	391
734-208/008-000	392
734-208/037-000	391
734-209	391
734-209/008-000	392
734-209/037-000	391
734-210	391
734-210/008-000	392
734-210/037-000	391
734-212	391
734-212/008-000	392
734-212/037-000	391
734-214	391
734-214/008-000	392
734-214/037-000	391
734-215	391
734-215/008-000	392
734-215/037-000	391
734-216	391
734-216/008-000	392
734-216/037-000	391
734-218	391
734-218/008-000	392
734-218/037-000	391
734-219	391
734-219/008-000	392
734-219/037-000	391
734-220	391
734-220/008-000	392
734-220/037-000	391
734-226	417
734-227	417
734-228	417
734-229	417
734-230	414
734-231	414
734-232	407
734-232/105-604	412
734-232/105-604/997-405	412
734-233	407
734-233/105-604	412
734-233/105-604/997-405	412
734-234	407
734-234/105-604	412
734-234/105-604/997-405	412
734-235	407
734-235/105-604	412
734-235/105-604/997-407	412
734-236	407
734-236/105-604	412
734-236/105-604/997-407	412
734-238	407
734-238/105-604	412
734-238/105-604/997-407	412
734-239	407
734-239/105-604	412
734-240	407
734-240/105-604	412
734-240/105-604/997-407	412
734-242	407
734-242/105-604	412
734-242/105-604/997-408	412
734-244	407
734-245	407
734-246	407
734-248	407
734-249	407
734-250	407
734-262	407

Item No.	Page
734 Series	
734-262/105-604	411
734-262/105-604/997-405	411
734-263	407
734-263/105-604	411
734-263/105-604/997-405	411
734-264	407
734-264/105-604	411
734-264/105-604/997-405	411
734-265	407
734-265/105-604	411
734-265/105-604/997-407	411
734-266	407
734-266/105-604	411
734-266/105-604/997-407	411
734-268	407
734-268/105-604	411
734-268/105-604/997-407	411
734-269	407
734-269/105-604	411
734-269/105-604/997-407	411
734-270	407
734-270/105-604	411
734-270/105-604/997-407	411
734-272	407
734-272/105-604	411
734-272/105-604/997-408	411
734-274	407
734-275	407
734-276	407
734-278	407
734-279	407
734-280	407
734-302	369
734-302/018-000	370
734-302/019-000	369
734-302/109-000	369
734-303	369
734-303/018-000	370
734-303/109-000	369
734-304	369
734-304/018-000	370
734-304/019-000	369
734-304/109-000	369
734-305	369
734-305/018-000	370
734-305/019-000	369
734-305/109-000	369
734-306	369
734-306/018-000	370
734-306/019-000	369
734-306/109-000	369
734-307	369
734-307/018-000	370
734-307/019-000	369
734-307/109-000	369
734-308	369
734-308/018-000	370
734-308/019-000	369
734-308/109-000	369
734-309	369
734-309/018-000	370
734-309/019-000	369
734-309/109-000	369
734-310	369
734-310/018-000	370
734-310/019-000	369
734-310/109-000	369
734-311	369
734-311/018-000	370
734-311/019-000	369
734-311/109-000	369
734-312	369
734-312/018-000	370
734-312/019-000	369
734-312/109-000	369
734-313	369
734-313/018-000	370
734-313/019-000	369
734-313/109-000	369
734-314	369
734-314/018-000	370

Item No.	Page
734 Series	
734-314/019-000	369
734-314/109-000	369
734-316	369
734-316/018-000	370
734-316/019-000	369
734-316/109-000	369
734-318	369
734-318/018-000	370
734-318/019-000	369
734-318/109-000	369
734-320	369
734-320/018-000	370
734-320/019-000	369
734-320/109-000	369
734-324	369
734-324/018-000	370
734-324/019-000	369
734-324/109-000	369
734-326	543
734-327	543
734-328	543
734-329	543
734-332	399
734-332/018-000	400
734-332/019-000	399
734-333	399
734-333/018-000	400
734-333/019-000	399
734-334	399
734-334/018-000	400
734-334/019-000	399
734-335	399
734-335/018-000	400
734-335/019-000	399
734-336	399
734-336/018-000	400
734-336/019-000	399
734-338	399
734-338/018-000	400
734-338/019-000	399
734-339	399
734-339/018-000	400
734-339/019-000	399
734-340	399
734-340/018-000	400
734-340/019-000	399
734-342	399
734-342/018-000	400
734-342/019-000	399
734-344	399
734-344/018-000	400
734-344/019-000	399
734-345	399
734-345/018-000	400
734-345/019-000	399
734-346	399
734-346/018-000	400
734-346/019-000	399
734-348	399
734-348/018-000	400
734-348/019-000	399
734-349	399
734-349/018-000	400
734-349/019-000	399
734-350	399
734-350/018-000	400
734-350/019-000	399
734-362	373
734-362/008-000	374
734-362/037-000	373
734-363	373
734-363/008-000	374
734-363/037-000	373
734-364	373
734-364/008-000	374
734-364/037-000	373
734-365	373
734-365/008-000	374
734-365/037-000	373
734-366	373
734-366/008-000	374

Item No.	Page
734 Series	
734-366/037-000	373
734-367	373
734-367/008-000	374
734-367/037-000	373
734-368	373
734-368/008-000	374
734-368/037-000	373
734-369	373
734-369/008-000	374
734-369/037-000	373
734-370	373
734-370/008-000	374
734-370/037-000	373
734-371	373
734-371/008-000	374
734-371/037-000	373
734-372	373
734-372/008-000	374
734-372/037-000	373
734-400	416
734-402	381
734-402/001-000	382
734-403	381
734-403/001-000	382
734-404	381
734-404/001-000	382
734-405	381
734-405/001-000	382
734-406	381
734-406/001-000	382
734-407	381
734-407/001-000	382
734-408	381
734-408/001-000	382
734-409	381
734-409/001-000	382
734-410	381
734-410/001-000	382
734-412	381
734-412/001-000	382
734-420	415
734-426	417
734-427	543
734-428	417
734-429	543
734-430	543
734-431	543
734-432	407
734-432/001-000	408
734-433	407
734-433/001-000	408
734-434	407
734-434/001-000	408
734-435	407
734-435/001-000	408
734-436	407
734-436/001-000	408
734-437	407
734-437/001-000	408
734-438	407
734-438/001-000	408
734-439	407
734-439/001-000	408
734-440	407
734-440/001-000	408
734-442	407
734-442/001-000	408
734-462	377
734-462/037-000	378
734-463	377
734-463/037-000	378
734-464	377
734-464/037-000	378
734-465	377
734-465/037-000	378
734-466	377
734-466/037-000	378
734-467	377
734-467/037-000	378
734-468	377
734-468/037-000	378

Item No.	Page
734 Series	
734-469	377
734-469/037-000	378
734-470	377
734-470/037-000	378
734-471	377
734-471/037-000	378
734-472	377
734-472/037-000	378
734-473	377
734-473/037-000	378
734-474	377
734-474/037-000	378
734-476	377
734-476/037-000	378
734-478	377
734-478/037-000	378
734-480	377
734-480/037-000	378
734-484	377
734-484/037-000	378
734-502	403
734-502/037-000	404
734-503	403
734-503/037-000	404
734-504	403
734-504/037-000	404
734-505	403
734-505/037-000	404
734-506	403
734-506/037-000	404
734-508	403
734-508/037-000	404
734-509	403
734-509/037-000	404
734-510	403
734-510/037-000	404
734-512	403
734-512/037-000	404
734-514	403
734-514/037-000	404
734-515	403
734-515/037-000	404
734-516	403
734-516/037-000	404
734-520	403
734-520/037-000	404
734-532	377
734-532/037-000	377
734-533	377
734-533/037-000	377
734-534	377
734-534/037-000	377
734-535	377
734-535/037-000	377
734-536	377
734-536/037-000	377
734-537	377
734-537/037-000	377
734-538	377
734-538/037-000	377
734-539	377
734-539/037-000	377
734-540	377
734-540/037-000	377
734-541	377
734-541/037-000	377
734-542	377
734-542/037-000	377
734-543	377
734-543/037-000	377
734-544	377
734-544/037-000	377
734-546	377
734-546/037-000	377
734-548	377
734-548/037-000	377
734-550	377
734-550/037-000	377
734-554	377
734-554/037-000	377
734-562	403

Item No.	Page
734 Series	
734-562/037-000	403
734-563	403
734-563/037-000	403
734-564	403
734-564/037-000	403
734-565	403
734-565/037-000	403
734-566	403
734-566/037-000	403
734-568	403
734-568/037-000	403
734-569	403
734-569/037-000	403
734-570	403
734-570/037-000	403
734-572	403
734-572/037-000	403
734-574	403
734-574/037-000	403
734-575	403
734-575/037-000	403
734-576	403
734-576/037-000	403
734-580	403
734-580/037-000	403
734-602	418
734-603	418
734-604	418
734-605	418
734-606	418
734-607	418
734-608	418
734-609	418
734-610	418
734-611	418
734-612	418
734-632	418
734-633	418
734-634	418
734-635	418
734-636	418
734-638	418
734-639	418
734-640	418
734-642	418
734-671	415
735 Series	
735-122	235
735-123	235
735-123/001-000	237
735-126	235
735-126/001-000	239
735-127	235
735-127/001-000	239
735-302	235
735-303	235
735-303/001-000	237
735-304	235
735-306	235
735-306/001-000	239
735-306/003-000	237
735-307	235
735-307/001-000	237
735-307/002-000	241
735-500	886
736 Series	
736-102	59
736-103	59
736-104	59
736-106	59
736-108	59
736-112	59
736-116	59
736-124	59
736-202	59
736-203	59
736-204	59
736-206	59
736-208	59

Item No.	Page
736 Series	
736-212	59
736-216	59
736-224	59
736-302	63
736-303	63
736-304	63
736-306	63
736-308	63
736-312	63
736-316	63
736-324	63
736-402	63
736-403	63
736-404	63
736-406	63
736-408	63
736-412	63
736-416	63
736-424	63
736-502	60
736-503	60
736-504	60
736-506	60
736-508	60
736-512	60
736-516	60
736-552	60
736-553	60
736-554	60
736-556	60
736-558	60
736-562	60
736-566	60
736-602	64
736-603	64
736-604	64
736-606	64
736-608	64
736-612	64
736-616	64
736-652	64
736-653	64
736-654	64
736-656	64
736-658	64
736-662	64
736-666	64
736-702	61
736-703	61
736-704	61
736-706	61
736-708	61
736-712	61
736-752	61
736-753	61
736-754	61
736-756	61
736-758	61
736-762	61
736-802	65
736-803	65
736-804	65
736-806	65
736-808	65
736-812	65
736-852	65
736-853	65
736-854	65
736-856	65
736-858	65
736-862	65
737 Series	
737-102	67
737-103	67
737-104	67
737-106	67
737-108	67
737-112	67
737-116	67

Item No.	Page
737 Series	
737-124	67
737-202	67
737-203	67
737-204	67
737-206	67
737-208	67
737-212	67
737-216	67
737-224	67
737-302	71
737-303	71
737-304	71
737-306	71
737-308	71
737-312	71
737-316	71
737-324	71
737-402	71
737-403	71
737-404	71
737-406	71
737-408	71
737-412	71
737-416	71
737-424	71
737-502	68
737-503	68
737-504	68
737-506	68
737-508	68
737-512	68
737-516	68
737-552	68
737-553	68
737-554	68
737-556	68
737-558	68
737-562	68
737-566	68
737-602	72
737-603	72
737-604	72
737-606	72
737-608	72
737-612	72
737-616	72
737-652	72
737-653	72
737-654	72
737-656	72
737-658	72
737-662	72
737-666	72
737-702	69
737-703	69
737-704	69
737-706	69
737-708	69
737-712	69
737-752	69
737-753	69
737-754	69
737-756	69
737-758	69
737-762	69
737-802	73
737-803	73
737-804	73
737-806	73
737-808	73
737-812	73
737-852	73
737-853	73
737-854	73
737-856	73
737-858	73
737-862	73
738 Series	
738-102	75

Item Number Index

Item No.	Page
738 Series	
738-103	75
738-104	75
738-106	75
738-108	75
738-112	75
738-116	75
738-124	75
738-202	75
738-203	75
738-204	75
738-206	75
738-208	75
738-212	75
738-216	75
738-224	75
738-302	77
738-303	77
738-304	77
738-306	77
738-308	77
738-312	77
738-316	77
738-324	77
738-402	77
738-403	77
738-404	77
738-406	77
738-408	77
738-412	77
738-416	77
738-424	77
739 Series	
739-102	83
739-103	83
739-104	83
739-105	83
739-106	83
739-107	83
739-108	83
739-109	83
739-110	83
739-112	83
739-116	83
739-124	83
739-152	85
739-153	85
739-154	85
739-155	85
739-156	85
739-157	85
739-158	85
739-159	85
739-160	85
739-162	85
739-166	85
739-174	85
739-202	87
739-203	87
739-204	87
739-205	87
739-206	87
739-207	87
739-208	87
739-209	87
739-210	87
739-212	87
739-232	89
739-233	89
739-234	89
739-235	89
739-236	89
739-237	89
739-238	89
739-239	89
739-240	89
739-242	89
739-302	79
739-302/001-000	79
739-303	79

Item No.	Page
739 Series	
739-303/001-000	79
739-304	79
739-304/001-000	79
739-305	79
739-305/001-000	79
739-306	79
739-306/001-000	79
739-307	79
739-307/001-000	79
739-308	79
739-308/001-000	79
739-309	79
739-309/001-000	79
739-310	79
739-310/001-000	79
739-312	79
739-312/001-000	79
739-332	81
739-332/001-000	81
739-333	81
739-333/001-000	81
739-334	81
739-334/001-000	81
739-335	81
739-335/001-000	81
739-336	81
739-336/001-000	81
739-337	81
739-337/001-000	81
739-338	81
739-338/001-000	81
739-339	81
739-339/001-000	81
739-340	81
739-340/001-000	81
739-342	81
739-342/001-000	81
739-3202	91
739-3203	91
739-3204	91
739-3205	91
739-3206	91
739-3207	91
739-3208	91
739-3209	91
739-3210	91
739-3212	91
740 Series	
740-102	93
740-103	93
740-104	93
740-105	93
740-106	93
740-107	93
740-108	93
740-109	93
740-110	93
740-112	93
740-116	93
740-124	93
741 Series	
741-102	819
741-103	819
741-104	819
741-105	819
741-106	819
741-107	819
741-108	819
741-109	819
741-110	819
741-112	819
741-116	819
741-132	821
741-133	821
741-134	821
741-135	821
741-136	821
741-137	821

Item No.	Page
741 Series	
741-138	821
741-139	821
741-140	821
741-142	821
741-146	821
741-202	823
741-203	823
741-204	823
741-205	823
741-206	823
741-207	823
741-208	823
741-209	823
741-210	823
741-212	823
741-216	823
741-232	825
741-233	825
741-234	825
741-235	825
741-236	825
741-237	825
741-238	825
741-239	825
741-240	825
741-242	825
741-246	825
741-302	819
741-303	819
741-304	819
741-305	819
741-306	819
741-307	819
741-308	819
741-309	819
741-310	819
741-322	821
741-323	821
741-324	821
741-325	821
741-326	821
741-327	821
741-328	821
741-329	821
741-330	821
741-402	823
741-403	823
741-404	823
741-405	823
741-406	823
741-407	823
741-408	823
741-409	823
741-410	823
741-422	825
741-423	825
741-424	825
741-425	825
741-426	825
741-427	825
741-428	825
741-429	825
741-430	825
741-502	819
741-503	819
741-504	819
741-505	819
741-506	819
741-507	819
741-508	819
741-522	821
741-523	821
741-524	821
741-525	821
741-526	821
741-527	821
741-528	821
741-602	823
741-603	823
741-604	823
741-605	823

Item No.	Page
741 Series	
741-606	823
741-607	823
741-608	823
741-622	825
741-623	825
741-624	825
741-625	825
741-626	825
741-627	825
741-628	825
742 Series	
742-100	247
742-101	247
742-106	249
742-111	255
742-116	257
742-121	251
742-124	251
742-126	253
742-128	251
742-150	247
742-151	247
742-152	247
742-153	247
742-156	249
742-158	249
742-161	255
742-163	255
742-166	257
742-168	257
742-171	251
742-174	251
742-176	253
742-178	251
742-400	251
742-450	251
742-600	249
742-650	249
742-651	249
742-800	251
742-850	251
744 Series	
744-303	232
744-303/364-000	231
744-304	232
744-304/364-000	231
744-306	232
744-306/364-000	231
744-307	232
744-307/364-000	231
744-308	232
744-308/364-000	231
744-310	232
744-310/364-000	231
744-392	232
744-392/364-000	231
745 Series	
745-100	43
745-102	45
745-103	45
745-104	45
745-105	45
745-106	45
745-107	45
745-108	45
745-109	45
745-110	45
745-112	45
745-140	43
745-145	43
745-152	45
745-153	45
745-154	45
745-155	45
745-156	45
745-157	45
745-158	45
745-159	45

Item No.	Page
745 Series	
745-160	45
745-162	45
745-180	259
745-181	259
745-182	259
745-183	259
745-184	259
745-185	259
745-190	259
745-191	259
745-192	259
745-193	259
745-194	259
745-195	259
745-202	45
745-203	45
745-204	45
745-205	45
745-206	45
745-207	45
745-208	45
745-209	45
745-210	45
745-212	45
745-280	259
745-281	259
745-282	259
745-283	259
745-284	259
745-285	259
745-300	49
745-302	51
745-303	51
745-304	51
745-305	51
745-306	51
745-307	51
745-308	51
745-309	51
745-310	51
745-312	51
745-338	49
745-340	49
745-345	49
745-352	51
745-353	51
745-354	51
745-355	51
745-356	51
745-357	51
745-358	51
745-359	51
745-360	51
745-362	51
745-380	259
745-381	259
745-382	259
745-383	259
745-384	259
745-385	259
745-390	259
745-391	259
745-392	259
745-393	259
745-394	259
745-395	259
745-500	53
745-502/006-000	55
745-503/006-000	55
745-504/006-000	55
745-505/006-000	55
745-540	53
745-545	53
745-602/006-000	55
745-603/006-000	55
745-604/006-000	55
745-605/006-000	55
745-631	259
745-632	259
745-633	259
745-634	259

Item No.	Page
745 Series	
745-635	259
745-652/006-000	55
745-653/006-000	55
745-654/006-000	55
745-655/006-000	55
745-681	259
745-682	259
745-683	259
745-684	259
745-685	259
745-801	43
745-803	43
745-804	43
745-807	43
745-808	43
745-811	43
745-813	43
745-814	43
745-817	43
745-818	43
745-821	43
745-823	43
745-824	43
745-827	43
745-828	43
745-831	49
745-833	49
745-834	49
745-837	49
745-838	49
745-841	49
745-843	49
745-844	49
745-847	49
745-848	49
745-851/006-000	53
745-853/006-000	53
745-854/006-000	53
745-857/006-000	53
745-858/006-000	53
745-871/006-000	53
745-873/006-000	53
745-874/006-000	53
745-877/006-000	53
745-878/006-000	53
745-881/006-000	53
745-883/006-000	53
745-884/006-000	53
745-887/006-000	53
745-888/006-000	53
745-1352	47
745-1353	47
745-1354	47
745-1355	47
745-1356	47
745-1357	47
745-1358	47
745-1359	47
745-1360	47
745-1362	47
745-1402	47
745-1403	47
745-1404	47
745-1405	47
745-1406	47
745-1407	47
745-1408	47
745-1409	47
745-1410	47
745-1412	47
745-1452	47
745-1453	47
745-1454	47
745-1455	47
745-1456	47
745-1457	47
745-1458	47
745-1459	47
745-1460	47
745-1462	47
745-3100	37

Item No.	Page
745 Series	
745-3102	40
745-3103	40
745-3104	40
745-3105	40
745-3106	40
745-3107	40
745-3108	40
745-3109	40
745-3110	40
745-3111	40
745-3112	40
745-3138	37
745-3152	40
745-3153	40
745-3154	40
745-3155	40
745-3156	40
745-3157	40
745-3158	40
745-3159	40
745-3160	40
745-3161	40
745-3162	40
745-3202	40
745-3203	40
745-3204	40
745-3205	40
745-3206	40
745-3207	40
745-3208	40
745-3209	40
745-3210	40
745-3211	40
745-3212	40
745-3252	41
745-3253	41
745-3254	41
745-3255	41
745-3256	41
745-3257	41
745-3258	41
745-3259	41
745-3260	41
745-3261	41
745-3262	41
745-3801	37
745-3803	37
745-3804	37
745-3808	37
746 Series	
746-2302	145
746-2303	145
746-2304	145
746-2305	145
746-2306	145
746-2307	145
746-2308	145
746-2309	145
746-2310	145
746-2312	145
793 Series	
793-472	863
793-501	862
793-501/000-002	862
793-501/000-005	862
793-501/000-006	862
793-501/000-007	862
793-501/000-012	862
793-501/000-017	862
793-501/000-023	862
793-501/000-024	862
793-502	863
793-503	863
793-504	863
793-505	863
793-506	863
793-507	863
793-508	863

Item No.	Page
793 Series	
793-509	863
793-510	863
793-511	863
793-512	863
793-513	863
793-514	863
793-515	863
793-516	863
793-517	863
793-565	863
793-566	863
793-569	863
793-570	863
793-571	863
793-572	863
793-573	863
793-5501	862
793-5501/000-002	862
793-5501/000-005	862
793-5501/000-006	862
793-5501/000-007	862
793-5501/000-012	862
793-5501/000-017	862
793-5501/000-023	862
793-5501/000-024	862
804 Series	
804-102	197
804-103	197
804-104	197
804-105	197
804-106	197
804-107	197
804-108	197
804-109	197
804-110	197
804-111	197
804-112	197
804-113	197
804-114	197
804-115	197
804-116	197
804-302	197
804-303	197
804-304	197
804-305	197
804-306	197
804-307	197
804-308	197
804-309	197
804-310	197
804-311	197
804-312	197
805 Series	
805-102	194
805-103	194
805-104	194
805-105	194
805-106	194
805-107	194
805-108	194
805-109	194
805-110	194
805-111	194
805-112	194
805-113	194
805-114	194
805-115	194
805-116	194
805-117	194
805-118	194
805-119	194
805-120	194
805-121	194
805-122	194
805-123	194
805-124	194
805-152	191
805-153	191

Item Number Index

Item No.	Page
805 Series	
805-154	191
805-155	191
805-156	191
805-157	191
805-158	191
805-159	191
805-160	191
805-161	191
805-162	191
805-163	191
805-164	191
805-165	191
805-166	191
805-167	191
805-168	191
805-169	191
805-170	191
805-171	191
805-172	191
805-173	191
805-174	191
805-302	193
805-302/200-604	291
805-302/200-604/997-404	291
805-303	193
805-303/200-604	291
805-303/200-604/997-405	291
805-304	193
805-304/200-604	291
805-304/200-604/997-405	291
805-305	193
805-305/200-604	291
805-305/200-604/997-405	291
805-306	193
805-306/200-604	291
805-306/200-604/997-406	291
805-307	193
805-307/200-604	291
805-307/200-604/997-406	291
805-308	193
805-308/200-604	291
805-308/200-604/997-406	291
805-309	193
805-310	193
805-311	193
805-312	193
805-313	193
805-314	193
805-315	193
805-316	193
805-317	193
805-318	193
805-319	193
805-320	193
805-321	193
805-322	193
805-323	193
805-324	193
805-352	191
805-353	191
805-354	191
805-355	191
805-356	191
805-357	191
805-358	191
805-359	191
805-360	191
805-361	191
805-362	191
805-363	191
805-364	191
805-365	191
805-366	191
805-367	191
805-368	191
805-369	191
805-370	191
805-371	191
805-372	191
805-373	191
805-374	191

Item No.	Page
806 Series	
806-102	795
806-103	795
806-104	795
806-105	795
806-106	795
806-107	795
806-108	795
806-109	795
806-110	795
806-111	795
806-112	795
806-202	795
806-203	795
806-204	795
806-205	795
806-206	795
806-207	795
806-208	795
806-209	795
806-210	795
806-211	795
806-212	795
806-902	795
806-903	795
806-904	795
806-905	795
806-906	795
806-907	795
806-908	795
806-909	795
806-910	795
806-911	795
806-912	795
816 Series	
816-102	143
816-103	143
816-104	143
816-105	143
816-106	143
816-107	143
816-108	143
816-109	143
816-110	143
816-111	143
816-112	143
826 Series	
826-155	803
826-156	803
826-157	803
826-158	803
826-158/000-006	803
826-158/000-016	803
826-159	803
826-159/000-006	803
826-159/000-016	803
826-160	803
826-160/000-006	803
826-160/000-016	803
826-161	804
826-162	804
826-163	804
826-164	804
826-165	804
826-166	804
826-167	804
826-168	804
826-169	804
826-170	804
826-171	804
826-172	804
828 Series	
828-334	817
831 Series	
831-137	778

Item No.	Page
831 Series	
831-302	778
831-303	778
831-304	778
831-305	778
831-321	778
831-500	777
831-503	776
831-505	776
831-506	776
831-1032	782
831-1038	782
831-1102	755
831-1102/037-000	755
831-1102/038-000	755
831-1102/038-000/306-000	756
831-1102/306-000	756
831-1102/322-000	756
831-1103	755
831-1103/037-000	755
831-1103/038-000	755
831-1103/038-000/306-000	756
831-1103/306-000	756
831-1104	755
831-1104/037-000	755
831-1104/038-000	755
831-1104/038-000/306-000	756
831-1104/306-000	756
831-1105	755
831-1105/037-000	755
831-1105/038-000	755
831-1105/038-000/306-000	756
831-1105/306-000	756
831-1106	755
831-1106/037-000	755
831-1106/038-000	755
831-1106/038-000/306-000	756
831-1106/306-000	756
831-1106/322-000	756
831-1107	755
831-1107/037-000	755
831-1107/038-000	755
831-1107/038-000/306-000	756
831-1107/306-000	756
831-1107/322-000	756
831-1108	755
831-1108/037-000	755
831-1108/038-000	755
831-1108/038-000/306-000	756
831-1108/306-000	756
831-1108/322-000	756
831-1109	755
831-1109/037-000	755
831-1109/038-000	755
831-1109/038-000/306-000	756
831-1109/306-000	756
831-1109/322-000	756
831-1202	761
831-1202/306-000	761
831-1203	761
831-1203/306-000	761
831-1204	761
831-1204/306-000	761
831-1205	761
831-1205/306-000	761
831-1206	761
831-1206/306-000	761
831-1207	761
831-1207/306-000	761
831-1208	761
831-1208/306-000	761
831-1209	761
831-1209/306-000	761
831-3102	753
831-3102/037-000	753
831-3102/107-000	753
831-3103	753
831-3103/037-000	753
831-3103/107-000	753
831-3104	753
831-3104/037-000	753
831-3104/107-000	753

Item No.	Page
831 Series	
831-3105	753
831-3105/037-000	753
831-3105/107-000	753
831-3106	753
831-3106/037-000	753
831-3106/107-000	753
831-3107	753
831-3107/037-000	753
831-3107/107-000	753
831-3108	753
831-3108/037-000	753
831-3108/107-000	753
831-3109	753
831-3109/037-000	753
831-3109/107-000	753
831-3202	759
831-3202/007-000	759
831-3202/109-000	759
831-3203	759
831-3203/007-000	759
831-3203/109-000	759
831-3204	759
831-3204/007-000	759
831-3204/109-000	759
831-3205	759
831-3205/007-000	759
831-3205/109-000	759
831-3206	759
831-3206/007-000	759
831-3206/109-000	759
831-3207	759
831-3207/007-000	759
831-3207/109-000	759
831-3208	759
831-3208/007-000	759
831-3208/109-000	759
831-3209	759
831-3209/007-000	759
831-3209/109-000	759
831-3502	763
831-3503	763
831-3504	763
831-3505	763
831-3506	763
831-3507	763
831-3508	763
831-3509	763
831-3522	763
831-3523	763
831-3524	763
831-3525	763
831-3526	763
831-3527	763
831-3528	763
831-3529	763
831-3602	765
831-3602/108-000	766
831-3603	765
831-3603/108-000	766
831-3604	765
831-3604/108-000	766
831-3605	765
831-3605/108-000	766
831-3606	765
831-3606/108-000	766
831-3607	765
831-3607/108-000	766
831-3608	765
831-3608/108-000	766
831-3609	765
831-3609/108-000	766
831-3622	765
831-3622/108-000	766
831-3623	765
831-3623/108-000	766
831-3624	765
831-3624/108-000	766
831-3625	765
831-3625/108-000	766
831-3626	765
831-3626/108-000	766

Item No.	Page
831 Series	
831-3627	765
831-3627/108-000	766
831-3628	765
831-3628/108-000	766
831-3629	765
831-3629/108-000	766
831-3642	765
831-3643	765
831-3644	765
831-3645	765
831-3646	765
831-3647	765
831-3648	765
831-3649	765
832 Series	
832-500	777
832-532	780
832-533	780
832-534	780
832-535	780
832-542	781
832-543	781
832-544	781
832-545	781
832-1032	782
832-1038	782
832-1102	769
832-1102/037-000	769
832-1102/037-000/306-000	770
832-1102/306-000	770
832-1102/322-000	769
832-1102/342-000	770
832-1103	769
832-1103/037-000	769
832-1103/037-000/306-000	770
832-1103/306-000	770
832-1103/323-000	769
832-1103/343-000	770
832-1104	769
832-1104/037-000	769
832-1104/037-000/306-000	770
832-1104/306-000	770
832-1104/322-000	769
832-1104/344-000	770
832-1105	769
832-1105/037-000	769
832-1105/037-000/306-000	770
832-1105/306-000	770
832-1105/323-000	769
832-1105/345-000	770
832-1106	769
832-1106/037-000	769
832-1106/037-000/306-000	770
832-1106/306-000	770
832-1106/322-000	769
832-1106/344-000	770
832-1202	773
832-1202/306-000	773
832-1203	773
832-1203/306-000	773
832-1204	773
832-1204/306-000	773
832-1205	773
832-1205/306-000	773
832-1206	773
832-1206/306-000	773
832-3602	775
832-3603	775
832-3604	775
832-3605	775
832-3606	775
832-3622	775
832-3623	775
832-3624	775
832-3625	775
832-3626	775
832-3642	775
832-3643	775
832-3644	775
832-3645	775

Item No.	Page
832 Series	
832-3646	775
859 Series	
859-402	853
2009 Series	
2009-110/762-802	779
2009-110/762-803	779
2009-110/762-804	779
2009-110/762-805	779
2009-110/762-806	779
2009-110/762-807	779
2009-110/762-808	779
2009-110/762-852	779
2009-110/762-853	779
2009-110/762-854	779
2009-110/762-855	779
2009-110/762-856	779
2009-110/762-857	779
2009-110/762-858	779
2009-110/762-859	779
2009-115	862
2009-145	862
2059 Series	
2059-189	334
2059-301/998-403	303
2059-302/998-403	305
2059-303/998-403	305
2059-321/998-403	303
2059-322/998-403	305
2059-323/998-403	305
2059-901	327
2059-901/018-000	327
2059-901/021-000	327
2059-902/018-000	327
2059-902/021-000	327
2059-903	327
2059-903/018-000	327
2059-903/021-000	327
2060 Series	
2060-189	299
2060-451/998-404	307
2060-452/998-404	309
2060-453/998-404	309
2060-471/998-404	307
2060-472/998-404	309
2060-473/998-404	309
2060-852/998-404	311
2060-872/998-404	311
2060-951/028-000	329
2060-952/028-000	329
2060-953/028-000	329
2060-954/028-000	329
2060-962/028-000	329
2060-1451/998-404	271
2060-1452/998-404	273
2060-1453/998-404	273
2060-1471/998-404	271
2060-1472/998-404	273
2060-1473/998-404	273
2060-1852/998-404	275
2060-1872/998-404	275
2061 Series	
2061-189	299
2061-601/998-404	313
2061-602/998-404	315
2061-603/998-404	315
2061-621/998-404	313
2061-622/998-404	315
2061-623/998-404	315
2061-901	331
2061-901/034-000	331
2061-902	331
2061-902/034-000	331

Item No.	Page
2061 Series	
2061-903	331
2061-903/034-000	331
2061-904	331
2061-904/034-000	331
2061-1601/998-404	281
2061-1602/998-404	283
2061-1603/998-404	283
2061-1621/998-404	281
2061-1622/998-404	283
2061-1623/998-404	283
2061-1641/998-404	277
2061-1642/998-404	279
2061-1643/998-404	279
2061-1661/998-404	277
2061-1662/998-404	279
2061-1663/998-404	279
2065 Series	
2065-100/998-403	319
2065-101/998-403	317
2065-131	333
2065-133	333
2065-189	335
2070 Series	
2070-400	332
2070-451/998-406	321
2070-452/998-406	321
2070-453/998-406	321
2070-461/998-406	322
2070-462/998-406	322
2070-463/998-406	322
2070-521/998-406	323
2070-522/998-406	323
2070-523/998-406	323
2070-541/998-406	324
2070-542/998-406	324
2070-543/998-406	324
2092 Series	
2092-1610	853
2231 Series	
2231-102/008-000	574
2231-102/026-000	573
2231-102/031-000	574
2231-102/037-000	574
2231-102/102-000	573
2231-103/008-000	574
2231-103/026-000	573
2231-103/031-000	574
2231-103/037-000	574
2231-103/102-000	573
2231-104/008-000	574
2231-104/026-000	573
2231-104/031-000	574
2231-104/037-000	574
2231-104/102-000	573
2231-105/008-000	574
2231-105/026-000	573
2231-105/031-000	574
2231-105/037-000	574
2231-105/102-000	573
2231-106/008-000	574
2231-106/026-000	573
2231-106/031-000	574
2231-106/037-000	574
2231-106/102-000	573
2231-107/008-000	574
2231-107/026-000	573
2231-107/031-000	574
2231-107/037-000	574
2231-107/102-000	573
2231-108/008-000	574
2231-108/026-000	573
2231-108/031-000	574
2231-108/037-000	574
2231-108/102-000	573

Item No.	Page
2231 Series	
2231-109/008-000	574
2231-109/026-000	573
2231-109/031-000	574
2231-109/037-000	574
2231-109/102-000	573
2231-110/008-000	574
2231-110/026-000	573
2231-110/031-000	574
2231-110/037-000	574
2231-110/102-000	573
2231-111/008-000	574
2231-111/026-000	573
2231-111/031-000	574
2231-111/037-000	574
2231-111/102-000	573
2231-112/008-000	574
2231-112/026-000	573
2231-112/031-000	574
2231-112/037-000	574
2231-112/102-000	573
2231-113/008-000	574
2231-113/026-000	573
2231-113/031-000	574
2231-113/037-000	574
2231-113/102-000	573
2231-114/008-000	574
2231-114/026-000	573
2231-114/031-000	574
2231-114/037-000	574
2231-114/102-000	573
2231-115/008-000	574
2231-115/026-000	573
2231-115/031-000	574
2231-115/037-000	574
2231-115/102-000	573
2231-116/008-000	574
2231-116/026-000	573
2231-116/031-000	574
2231-116/037-000	574
2231-116/102-000	573
2231-117/008-000	574
2231-117/026-000	573
2231-117/031-000	574
2231-117/037-000	574
2231-117/102-000	573
2231-118/008-000	574
2231-118/026-000	573
2231-118/031-000	574
2231-118/037-000	574
2231-118/102-000	573
2231-119/008-000	574
2231-119/026-000	573
2231-119/031-000	574
2231-119/037-000	574
2231-119/102-000	573
2231-120/008-000	574
2231-120/026-000	573
2231-120/031-000	574
2231-120/037-000	574
2231-120/102-000	573
2231-121/008-000	574
2231-121/026-000	573
2231-121/031-000	574
2231-121/037-000	574
2231-121/102-000	573
2231-122/008-000	574
2231-122/026-000	573
2231-122/031-000	574
2231-122/037-000	574
2231-122/102-000	573
2231-123/008-000	574
2231-123/026-000	573
2231-123/031-000	574
2231-123/037-000	574
2231-123/102-000	573
2231-124/008-000	574
2231-124/026-000	573
2231-124/031-000	574
2231-124/037-000	574
2231-124/102-000	573
2231-202/008-000	666

Item Number Index

Item No.	Page
2231 Series	
2231-202/026-000	665
2231-202/031-000	665
2231-202/037-000	665
2231-203/008-000	666
2231-203/026-000	665
2231-203/031-000	665
2231-203/037-000	665
2231-204/008-000	666
2231-204/026-000	665
2231-204/031-000	665
2231-204/037-000	665
2231-205/008-000	666
2231-205/026-000	665
2231-205/031-000	665
2231-205/037-000	665
2231-206/008-000	666
2231-206/026-000	665
2231-206/031-000	665
2231-206/037-000	665
2231-207/008-000	666
2231-207/026-000	665
2231-207/031-000	665
2231-207/037-000	665
2231-208/008-000	666
2231-208/026-000	665
2231-208/031-000	665
2231-208/037-000	665
2231-209/008-000	666
2231-209/026-000	665
2231-209/031-000	665
2231-209/037-000	665
2231-210/008-000	666
2231-210/026-000	665
2231-210/031-000	665
2231-210/037-000	665
2231-211/008-000	666
2231-211/026-000	665
2231-211/031-000	665
2231-211/037-000	665
2231-212/008-000	666
2231-212/026-000	665
2231-212/031-000	665
2231-212/037-000	665
2231-213/008-000	666
2231-213/026-000	665
2231-213/031-000	665
2231-213/037-000	665
2231-216/008-000	666
2231-216/026-000	665
2231-216/031-000	665
2231-216/037-000	665
2231-302/008-000	628
2231-302/026-000	627
2231-302/031-000	628
2231-302/037-000	627
2231-302/102-000	627
2231-302/107-000	628
2231-303/008-000	628
2231-303/026-000	627
2231-303/031-000	628
2231-303/037-000	627
2231-303/102-000	627
2231-303/107-000	628
2231-304/008-000	628
2231-304/026-000	627
2231-304/031-000	628
2231-304/037-000	627
2231-304/102-000	627
2231-304/107-000	628
2231-305/008-000	628
2231-305/026-000	627
2231-305/031-000	628
2231-305/037-000	627
2231-305/102-000	627
2231-305/107-000	628
2231-306/008-000	628
2231-306/026-000	627
2231-306/031-000	628
2231-306/037-000	627
2231-306/102-000	627
2231-306/107-000	628

Item No.	Page
2231 Series	
2231-307/008-000	628
2231-307/026-000	627
2231-307/031-000	628
2231-307/037-000	627
2231-307/102-000	627
2231-307/107-000	628
2231-308/008-000	628
2231-308/026-000	627
2231-308/031-000	628
2231-308/037-000	627
2231-308/102-000	627
2231-308/107-000	628
2231-309/008-000	628
2231-309/026-000	627
2231-309/031-000	628
2231-309/037-000	627
2231-309/102-000	627
2231-309/107-000	628
2231-310/008-000	628
2231-310/026-000	627
2231-310/031-000	628
2231-310/037-000	627
2231-310/102-000	627
2231-310/107-000	628
2231-311/008-000	628
2231-311/026-000	627
2231-311/031-000	628
2231-311/037-000	627
2231-311/102-000	627
2231-312/008-000	628
2231-312/026-000	627
2231-312/031-000	628
2231-312/037-000	627
2231-312/102-000	627
2231-312/107-000	628
2231-313/008-000	628
2231-313/026-000	627
2231-313/031-000	628
2231-313/037-000	627
2231-313/102-000	627
2231-314/008-000	628
2231-314/026-000	627
2231-314/031-000	628
2231-314/037-000	627
2231-314/102-000	627
2231-314/107-000	628
2231-315/008-000	628
2231-315/026-000	627
2231-315/031-000	628
2231-315/037-000	627
2231-315/102-000	627
2231-315/107-000	628
2231-316/008-000	628
2231-316/026-000	627
2231-316/031-000	628
2231-316/037-000	627
2231-316/102-000	627
2231-316/107-000	628
2231-317/008-000	628
2231-317/026-000	627
2231-317/031-000	628
2231-317/037-000	627
2231-317/102-000	627
2231-318/008-000	628
2231-318/026-000	627
2231-318/031-000	628
2231-318/037-000	627
2231-318/102-000	627
2231-319/008-000	628
2231-319/026-000	627
2231-319/031-000	628
2231-319/037-000	627
2231-319/102-000	627
2231-320/008-000	628
2231-320/026-000	627
2231-320/031-000	628
2231-320/037-000	627
2231-320/102-000	627
2231-321/008-000	628
2231-321/026-000	627
2231-321/031-000	628

Item No.	Page
2231 Series	
2231-321/037-000	627
2231-321/102-000	627
2231-322/008-000	628
2231-322/026-000	627
2231-322/031-000	628
2231-322/037-000	627
2231-322/102-000	627
2231-323/008-000	628
2231-323/026-000	627
2231-323/031-000	628
2231-323/037-000	627
2231-323/102-000	627
2231-324/008-000	628
2231-324/026-000	627
2231-324/031-000	628
2231-324/037-000	627
2231-324/102-000	627
2231-702/008-000	706
2231-702/026-000	705
2231-702/031-000	705
2231-702/037-000	705
2231-703/008-000	706
2231-703/026-000	705
2231-703/031-000	705
2231-703/037-000	705
2231-704/008-000	706
2231-704/026-000	705
2231-704/031-000	705
2231-704/037-000	705
2231-705/008-000	706
2231-705/026-000	705
2231-705/031-000	705
2231-705/037-000	705
2231-706/008-000	706
2231-706/026-000	705
2231-706/031-000	705
2231-706/037-000	705
2231-707/008-000	706
2231-707/026-000	705
2231-707/031-000	705
2231-707/037-000	705
2231-708/008-000	706
2231-708/026-000	705
2231-708/031-000	705
2231-708/037-000	705
2231-709/008-000	706
2231-709/026-000	705
2231-709/031-000	705
2231-709/037-000	705
2231-710/008-000	706
2231-710/026-000	705
2231-710/031-000	705
2231-710/037-000	705
2231-711/008-000	706
2231-711/026-000	705
2231-711/031-000	705
2231-711/037-000	705
2231-712/008-000	706
2231-712/026-000	705
2231-712/031-000	705
2231-712/037-000	705
2604 Series	
2604-1101	199
2604-1102	201
2604-1103	201
2604-1104	201
2604-1105	201
2604-1106	201
2604-1107	201
2604-1108	201
2604-1109	201
2604-1110	201
2604-1111	201
2604-1112	201
2604-1302	201
2604-1303	201
2604-1304	201
2604-1305	201
2604-1306	201

Item No.	Page
2604 Series	
2604-1307	201
2604-1308	201
2604-1309	201
2604-1310	201
2604-1311	201
2604-1312	201
2604-1502	201
2604-1503	201
2604-1504	201
2604-1505	201
2604-1506	201
2604-1507	201
2604-1508	201
2604-1509	201
2604-1510	201
2604-1511	201
2604-1512	201
2604-3101	199
2604-3102	202
2604-3103	202
2604-3104	202
2604-3105	202
2604-3106	202
2604-3107	202
2604-3108	202
2604-3109	202
2604-3110	202
2604-3111	202
2604-3112	202
2604-3302	202
2604-3303	202
2604-3304	202
2604-3305	202
2604-3306	202
2604-3307	202
2604-3308	202
2604-3309	202
2604-3310	202
2604-3311	202
2604-3312	202
2604-3502	202
2604-3503	202
2604-3504	202
2604-3505	202
2604-3506	202
2604-3507	202
2604-3508	202
2604-3509	202
2604-3510	202
2604-3511	202
2604-3512	202
2606 Series	
2606-1101	205
2606-1102/020-000	207
2606-1103/020-000	207
2606-1104/020-000	207
2606-1105/020-000	207
2606-1106/020-000	207
2606-1107/020-000	207
2606-1108/020-000	207
2606-1109/020-000	207
2606-1110/020-000	207
2606-1111/020-000	207
2606-1112/020-000	207
2606-1352	207
2606-1353	207
2606-1354	207
2606-1355	207
2606-1356	207
2606-1357	207
2606-1358	207
2606-1359	207
2606-1360	207
2606-1361	207
2606-1362	207
2606-3101	205
2606-3102/020-000	207
2606-3103/020-000	207
2606-3104/020-000	207

Item No.	Page
2606 Series	
2606-3105/020-000	207
2606-3106/020-000	207
2606-3107/020-000	207
2606-3108/020-000	207
2606-3109/020-000	207
2606-3110/020-000	207
2606-3111/020-000	207
2606-3112/020-000	207
2606-3352	208
2606-3353	208
2606-3354	208
2606-3355	208
2606-3356	208
2606-3357	208
2606-3358	208
2606-3359	208
2606-3360	208
2606-3361	208
2606-3362	208
2616 Series	
2616-1101	211
2616-1102/020-000	213
2616-1103/020-000	213
2616-1104/020-000	213
2616-1105/020-000	213
2616-1106/020-000	213
2616-1107/020-000	213
2616-1108/020-000	213
2616-1109/020-000	213
2616-1110/020-000	213
2616-1111/020-000	213
2616-1112/020-000	213
2616-1352	213
2616-1353	213
2616-1354	213
2616-1355	213
2616-1356	213
2616-1357	213
2616-1358	213
2616-3101	211
2616-3102/020-000	213
2616-3103/020-000	213
2616-3104/020-000	213
2616-3105/020-000	213
2616-3106/020-000	213
2616-3107/020-000	213
2616-3108/020-000	213
2616-3109/020-000	213
2616-3110/020-000	213
2616-3111/020-000	213
2616-3112/020-000	213
2616-3352	214
2616-3353	214
2616-3354	214
2616-3355	214
2616-3356	214
2616-3357	214
2616-3358	214
2624 Series	
2624-1101	147
2624-1102	149
2624-1103	149
2624-1104	149
2624-1105	149
2624-1106	149
2624-1107	149
2624-1108	149
2624-1109	149
2624-1110	149
2624-1111	149
2624-1112	149
2624-1302	149
2624-1303	149
2624-1304	149
2624-1305	149
2624-1306	149
2624-1307	149
2624-1308	149

Item No.	Page
2624 Series	
2624-1309	149
2624-1310	149
2624-1311	149
2624-1312	149
2624-1502	149
2624-1503	149
2624-1504	149
2624-1505	149
2624-1506	149
2624-1507	149
2624-1508	149
2624-1509	149
2624-1510	149
2624-1511	149
2624-1512	149
2624-3101	147
2624-3102	150
2624-3103	150
2624-3104	150
2624-3105	150
2624-3106	150
2624-3107	150
2624-3108	150
2624-3109	150
2624-3110	150
2624-3111	150
2624-3112	150
2624-3302	150
2624-3303	150
2624-3304	150
2624-3305	150
2624-3306	150
2624-3307	150
2624-3308	150
2624-3309	150
2624-3310	150
2624-3311	150
2624-3312	150
2624-3502	150
2624-3503	150
2624-3504	150
2624-3505	150
2624-3506	150
2624-3507	150
2624-3508	150
2624-3509	150
2624-3510	150
2624-3511	150
2624-3512	150
2626 Series	
2626-1101	153
2626-1102/020-000	155
2626-1103/020-000	155
2626-1104/020-000	155
2626-1105/020-000	155
2626-1106/020-000	155
2626-1107/020-000	155
2626-1108/020-000	155
2626-1109/020-000	155
2626-1110/020-000	155
2626-1111/020-000	155
2626-1112/020-000	155
2626-1352	155
2626-1353	155
2626-1354	155
2626-1355	155
2626-1356	155
2626-1357	155
2626-1358	155
2626-1359	155
2626-1360	155
2626-1361	155
2626-1362	155
2626-3101	153
2626-3102/020-000	155
2626-3103/020-000	155
2626-3104/020-000	155
2626-3105/020-000	155
2626-3106/020-000	155

Item No.	Page
2626 Series	
2626-3107/020-000	155
2626-3108/020-000	155
2626-3109/020-000	155
2626-3110/020-000	155
2626-3111/020-000	155
2626-3112/020-000	155
2626-3352	156
2626-3353	156
2626-3354	156
2626-3355	156
2626-3356	156
2626-3357	156
2626-3358	156
2626-3359	156
2626-3360	156
2626-3361	156
2626-3362	156
2636 Series	
2636-1101	159
2636-1102/020-000	161
2636-1103/020-000	161
2636-1104/020-000	161
2636-1105/020-000	161
2636-1106/020-000	161
2636-1107/020-000	161
2636-1108/020-000	161
2636-1109/020-000	161
2636-1110/020-000	161
2636-1111/020-000	161
2636-1112/020-000	161
2636-1352	161
2636-1353	161
2636-1354	161
2636-1355	161
2636-1356	161
2636-1357	161
2636-1358	161
2636-3101	159
2636-3102/020-000	161
2636-3103/020-000	161
2636-3104/020-000	161
2636-3105/020-000	161
2636-3107/020-000	161
2636-3108/020-000	161
2636-3109/020-000	161
2636-3110/020-000	161
2636-3111/020-000	161
2636-3112/020-000	161
2636-3352	162
2636-3353	162
2636-3354	162
2636-3355	162
2636-3356	162
2636-3357	162
2636-3358	162
2706 Series	
2706-102	135
2706-103	135
2706-104	135
2706-105	135
2706-106	135
2706-107	135
2706-108	135
2706-109	135
2706-110	135
2706-111	135
2706-112	135
2706-152	137
2706-153	137
2706-154	137
2706-155	137
2706-156	137
2706-157	137
2706-158	137
2706-159	137
2706-160	137
2706-161	137

Item No.	Page
2706 Series	
2706-162	137
2706-202	135
2706-203	135
2706-204	135
2706-205	135
2706-206	135
2706-207	135
2706-208	135
2706-209	135
2706-210	135
2706-211	135
2706-212	135
2706-252	137
2706-253	137
2706-254	137
2706-255	137
2706-256	137
2706-257	137
2706-258	137
2706-259	137
2706-260	137
2706-261	137
2706-262	137
2706-302	135
2706-303	135
2706-304	135
2706-305	135
2706-306	135
2706-307	135
2706-308	135
2706-309	135
2706-310	135
2706-311	135
2706-312	135
2716 Series	
2716-102	139
2716-103	139
2716-104	139
2716-105	139
2716-106	139
2716-107	139
2716-108	139
2716-152	141
2716-153	141
2716-154	141
2716-155	141
2716-156	141
2716-157	141
2716-158	141
2716-202	139
2716-203	139
2716-204	139
2716-205	139
2716-206	139
2716-207	139
2716-208	139
2716-252	141
2716-253	141
2716-254	141
2716-255	141
2716-256	141
2716-257	141
2716-258	141
2721 Series	
2721-102/008-000	474
2721-102/026-000	473
2721-102/031-000	473
2721-102/037-000	473
2721-103/008-000	474
2721-103/026-000	473
2721-103/031-000	473
2721-103/037-000	473
2721-104/008-000	474
2721-104/026-000	473
2721-104/031-000	473
2721-104/037-000	473
2721-105/008-000	474
2721-105/026-000	473
2721-105/031-000	473

Item Number Index

Item No.	Page
2721 Series	
2721-105/037-000	473
2721-106/008-000	474
2721-106/026-000	473
2721-106/031-000	473
2721-106/037-000	473
2721-107/008-000	474
2721-107/026-000	473
2721-107/031-000	473
2721-107/037-000	473
2721-108/008-000	474
2721-108/026-000	473
2721-108/031-000	473
2721-108/037-000	473
2721-109/008-000	474
2721-109/026-000	473
2721-109/031-000	473
2721-109/037-000	473
2721-110/008-000	474
2721-110/026-000	473
2721-110/031-000	473
2721-110/037-000	473
2721-111/008-000	474
2721-111/026-000	473
2721-111/037-000	473
2721-112/008-000	474
2721-112/026-000	473
2721-112/031-000	473
2721-112/037-000	473
2721-113/026-000	473
2721-114/008-000	474
2721-114/026-000	473
2721-114/031-000	473
2721-114/037-000	473
2721-115/008-000	474
2721-115/026-000	473
2721-115/037-000	473
2721-116/008-000	474
2721-116/026-000	473
2721-116/031-000	473
2721-116/037-000	473
2721-120/008-000	474
2721-120/026-000	473
2721-120/031-000	473
2721-120/037-000	473
2721-202/008-000	514
2721-202/026-000	513
2721-202/031-000	513
2721-202/037-000	513
2721-203/008-000	514
2721-203/026-000	513
2721-203/031-000	513
2721-203/037-000	513
2721-204/008-000	514
2721-204/026-000	513
2721-204/031-000	513
2721-204/037-000	513
2721-205/008-000	514
2721-205/026-000	513
2721-205/031-000	513
2721-205/037-000	513
2721-206/008-000	514
2721-206/026-000	513
2721-206/031-000	513
2721-206/037-000	513
2721-207/008-000	514
2721-207/026-000	513
2721-207/031-000	513
2721-207/037-000	513
2721-208/008-000	514
2721-208/026-000	513
2721-208/031-000	513
2721-208/037-000	513
2721-209/008-000	514
2721-209/026-000	513
2721-209/031-000	513
2721-209/037-000	513
2721-210/008-000	514
2721-210/026-000	513
2721-210/031-000	513
2721-210/037-000	513
2721-211/008-000	514

Item No.	Page
2721 Series	
2721-211/026-000	513
2721-211/031-000	513
2721-211/037-000	513
2721-212/008-000	514
2721-212/026-000	513
2721-212/031-000	513
2721-212/037-000	513
2734 Series	
2734-102	365
2734-102/031-000	366
2734-102/037-000	365
2734-102/107-000	365
2734-103	365
2734-103/031-000	366
2734-103/037-000	365
2734-103/107-000	365
2734-104	365
2734-104/031-000	366
2734-104/037-000	365
2734-104/107-000	365
2734-105	365
2734-105/031-000	366
2734-105/037-000	365
2734-105/107-000	365
2734-106	365
2734-106/031-000	366
2734-106/037-000	365
2734-106/107-000	365
2734-107	365
2734-107/031-000	366
2734-107/037-000	365
2734-107/107-000	365
2734-108	365
2734-108/031-000	366
2734-108/037-000	365
2734-108/107-000	365
2734-109	365
2734-109/031-000	366
2734-109/037-000	365
2734-109/107-000	365
2734-110	365
2734-110/027-000	366
2734-110/037-000	365
2734-110/107-000	365
2734-111	365
2734-111/027-000	366
2734-111/037-000	365
2734-111/107-000	365
2734-112	365
2734-112/027-000	366
2734-112/031-000	366
2734-112/037-000	365
2734-112/107-000	365
2734-113	365
2734-113/027-000	366
2734-113/037-000	365
2734-113/107-000	365
2734-114	365
2734-114/027-000	366
2734-114/037-000	365
2734-114/107-000	365
2734-116	365
2734-116/027-000	366
2734-116/037-000	365
2734-116/107-000	365
2734-118	365
2734-118/027-000	366
2734-118/037-000	365
2734-118/107-000	365
2734-120	365
2734-120/027-000	366
2734-120/037-000	365
2734-120/107-000	365
2734-124	365
2734-124/027-000	366
2734-124/037-000	365
2734-124/107-000	365
2734-202	395
2734-202/031-000	395

Item No.	Page
2734 Series	
2734-202/037-000	395
2734-203	395
2734-203/031-000	395
2734-203/037-000	395
2734-204	395
2734-204/031-000	395
2734-204/037-000	395
2734-205	395
2734-205/031-000	395
2734-205/037-000	395
2734-206	395
2734-206/031-000	395
2734-206/037-000	395
2734-208	395
2734-208/031-000	395
2734-208/037-000	395
2734-209	395
2734-209/031-000	395
2734-209/037-000	395
2734-210	395
2734-210/027-000	396
2734-210/031-000	395
2734-210/037-000	395
2734-212	395
2734-212/027-000	396
2734-212/031-000	395
2734-212/037-000	395
2734-214	395
2734-214/027-000	396
2734-214/031-000	395
2734-214/037-000	395
2734-215	395
2734-215/027-000	396
2734-215/037-000	395
2734-216	395
2734-216/027-000	396
2734-216/031-000	395
2734-216/037-000	395
2734-218	395
2734-218/027-000	396
2734-218/037-000	395
2734-219	395
2734-219/027-000	396
2734-219/037-000	395
2734-220	395
2734-220/027-000	396
2734-220/031-000	395
2734-220/037-000	395
2857 Series	
2857-101	853
2857-102	853
2857-103	853
2857-121	853
2857-122	853
2857-123	853
2857-124	853
2857-191/3140-000	854
2857-192/3140-000	854
2857-193/3140-000	855
2857-194/3140-000	855

Item No.	Page

Item No.	Page	Item No.	Page	Item No.	Page	Item No.	Page

WAGO Worldwide
Companies and Representatives

Algeria
Please contact WAGO France

Argentina
Bruno Schillig S.A.
Arenales 4030, B1604CFD
Florida, PBA
Phone +54 11 4730 1100
Fax +54 11 4761 7244
wago@schillig.com.ar

Armenia
ROOT ITSP LLC
33 Halabyan str.
0038, Yerevan
info@root.am

Australia
WAGO Pty. Ltd.
2-4 Overseas Drive
Noble Park Victoria 3174
Phone +61 03 8791 6300
Fax +61 03 9701 0177
sales.anz@wago.com

Austria
WAGO Kontakttechnik Ges.m.b.H.
Europaring F15 602
Campus 21
2345 Brunn am Gebirge
Phone +43 1 6150780
Fax +43 1 6150775
wago-at@wago.com

Azerbaijan
AZ Technics LTD
Zulfi V. Alizade
Y.Safarov str.33, AZ1025,
Baku
Phone +994 50 210 24 49
Fax +994 12 496 83 34
info@AZtechnics.az

Bangladesh
Please contact WAGO India

Belarus
DemsEnergo LLC
Vostochnaya Str. 39, Office 1N.
220040 Minsk
Phone +375 17 2102189
Fax +375 17 2102189
dems@dems.by

ATAVA Techno Ltd.
Ul. Denisovskaya 47, office 1
220006 Minsk
Phone +375173881018
atava@atava.by

Belgium
WAGO BeLux nv
Excelsiorlaan 11
1930 Zaventem
Phone +32 2 717 9090
Fax +32 2 717 9099
info-be@wago.com

Bolivia
ISOTEK S.R.L.
Zona Casco Viejo
Calle Isso #578, B/San Roque
Santa Cruz
Phone +591 721 000 27
info@isotek.bo

Bosnia & Herzegovina
Please contact WAGO Bulgaria

Brazil
WAGO Eletroeletrônicos Ltda
Rua Trípoli, 640, Loteamento Multivias II
Jardim Ermida I
Jundiaí - SP
CEP 13212-217
Phone +55 (11) 2923 7200
info.br@wago.com

Bulgaria
WAGO Kontakttechnik GmbH & Co. KG
Representative Office Sofia
Business Center Serdika
2E Akad. Ivan Geshov Blvd.
Building 1, Floor 4, Office 417
1330 Sofia
Phone +359 2 489 46 09/10
Fax +359 2 928 28 50
info-BG@wago.com

Canada
WAGO Canada, Inc.
1550 Yorkton Court - Unit 1
Burlington, ON L7P 5B7
Phone +1-888-9246-221
info.ca@wago.com

Chile
Desimat Chile
Av Puerto Vespucio 9670
Pudahuel Santiago
Phone +56 2 747 0152
Fax +56 2 747 0153
ventaschile@desimat.cl

China
WAGO Electronic (Tianjin) Co., Ltd.
No.5, Quan Hui Road
Wuqing Development Area
Tianjin 301700
Phone +86 22 5967 7688
Fax +86 22 5961 7668
info-cn@wago.com

Colombia
T.H.L. Ltda.
Cra. 49 B # 91-33
Bogotá
Phone +57 1 621 85 50
Fax +57 1 621 60 28
ventas-thl2@thl.com.co

Croatia
M.B.A. d.o.o.
Frana Supila 5
51211 Matulji
Phone +385 51 275-736
Fax +385 51 275-066
mba@ri.htnet.hr

MICROSTAR d.o.o.
Siget 18 b
10020 Zagreb
Phone +385 1 3647 849
Fax +385 1 3636 662
wago@microstar.hr

Czech Republic
WAGO Elektro spol. sr. o.
Rozvodova 1116/36
143 00 Praha 12 - Modřany
Phone +420 261 090 143
info.cz@wago.com
wago-cz@wago.com

Denmark
WAGO Denmark A/S
Lejrvej 17
3500 Værløse
Phone +45 44 357 777
info.dk@wago.com

Ecuador
ECUAINSETEC CIA LTDA
Yugoslavia N34-110 y Azuay
Quito
Phone +593 2 24 50 475
Fax +593 2 22 51 242
g.castro@ecuainsetec.com.ec

Egypt
IBN Engineering / Distributor (Automation Products)
Phone +2 02 3 721 43 50
Fax +2 02 3 722 17 09
nasrelwy@ibnengineering.com

Estonia
Eltarko OÜ
Treiali tee 2 door 6
Peetri küla
Rae vald
75312 Harjumaa
Phone +372 651 7731/32
Fax +372 651 7786
andres@eltarko.ee

Finland
WAGO Finland Oy
Äyritie 12 B
01510 Vantaa
Phone +358 9 7744 060
Fax +358 9 7744 0660
info.fi@wago.com

France
WAGO Contact SAS
Paris Nord 2
83 Rue des Chardonnerets
93290 - Tremblay en France
B.P. 95947 - ROISSY CDG CEDEX
Phone +33 1 4817 2590
Fax +33 1 4863 2520
info-fr@wago.com

Germany
WAGO Kontakttechnik GmbH & Co. KG
Hansastraße 27
32423 Minden
Phone +49 571 887-0
Fax +49 571 887-169
info@wago.com

WAGO Kontakttechnik GmbH & Co. KG
Waldstraße 1
99706 Sondershausen
Phone +49 3632 659-0
Fax +49 3632 659-100
info@wago.com

Great Britain
WAGO Limited
Triton Park, Swift Valley Industrial Estate
RUGBY
Warwickshire, CV21 1SG
Phone +44 1788 568 008
Fax +44 1788 568 050
uksales@wago.com

Greece
PANAGIOTIS SP. DIMOULAS
DIMOULAS AUTOMATIONS
Kritis Str. 26
10439 Athens
Phone +30 210 883 3337
Fax +30 210 883 4436
wago.info@dimoulas.com.gr

Honduras
CILASAS S.A. de C.V.
Barrio Los Andes
7 Calle entre 14 y 15 Ave. N.O.
P.O. Box. 1061
San Pedro Sula
Phone +504 2557 1146/7
Fax +504 2557 1149
ventas@iecilasa.com

Hong Kong
National Concord Eng., Ltd.
Unit A-B, 5/F.
Southeast Industrial Building
611-619 Castle Peak Road
Tsuen Wan, N.T.
Phone +852 2429 2611
Fax +852 2429 2164
sales@nce.com.hk

Hungary
WAGO Hungária KFT
Ipari Park, Gyár u. 2
2040 Budapest
Phone +36 23 502-170
Fax +36 23 502-1
info.hu@wago.com

Iceland
Johan Rönning ehf / S.Gudjonsson
Smidjuvegur 3
200 Kopavogur
Phone +354 520-4500
Fax +354 520-4501
export@wago.com

India
WAGO Private Limited
C-27, Sector-58, Phase-III
Noida-201 301
Uttar Pradesh-201301
Phone +91 120 438 8700
Fax +91 120 438 8799
info.india@wago.com

Indonesia
Please contact WAGO Singapore

Iraq
Please contact WAGO Middle East

Ireland
Drives & Controls
Unit F4, Riverview Business Park
Nangor Road
Dublin 12
Phone +353 1 4604474
Fax +353 1 4604507
info@drivesandcontrols.ie

Israel
Comtel Israel Electronic Solutions Ltd.
Bet Hapaamon
20 Hataas Street
P.O. Box 66
44425 Kefar-Saba
Phone +972 9 76 77 240
Fax +972 9 76 77 243
sales@comtel.co.il

Italy
WAGO Elettronica SRL a Socio Unico
Via Parini 1
40033 Casalecchio di Reno (BO)
Phone +39 051 6132112
Fax +39 051 6132888
info-ita@wago.com

Japan
WAGO Co. of JAPAN Ltd.
Kinshicho Prime Tower
1-5-7, Kameido, Koto-ku
Tokyo 136-0071
Phone +81 3 5627 2050
Fax +81 3 5627 2055
info-jp@wago.com

Jordan
Oxgen for Engineering Systems Co. L.L.C
P.O Box: 2154 Amman
11953 Jordan
Phone +962 79 9 860 869
Fax. +962 655 211 89
info@oxgn-grp.com

Kazakhstan
Axima LLP
232/2, Ryskulov avenue
050061 Almaty
Phone +7 727 356 52 91/92/93
Fax +7 727 327 14 92/93
trade1@axima.kz
or@axima.kz

Technik-Tade LLC
Kabanbay Batyra Str. 11
office 305
070004 Ust-Kamenogorsk
Phone +7 7232 254064
Fax +7 7232 253251
info@technik.kz

Korea
WAGO Korea Co., Ltd.
Room A413~A416, A dong,
Indukwon IT Valley Building, Imiro 40,
Poil-dong,Uiwang-Si, Gyeonggi-do,
16006, South Korea
Phone +82 31 421 9500
Fax +82 31 360 2476
info.korea@wago.com

Kosovo
Please contact WAGO Bulgaria

Latvia
INSTABALT LATVIA SIA
Vestienas iela 6
Rīga, LV-1035
Phone +371 6790 1188
Fax +371 6790 1180
info@instabalt.lv

Lebanon
Gemayel Trading & Contracting
Rue 55, Antonins Project-Bloc L
P.O. BOX 70-1096
Antelias, Lebanon
Phone +961 3 22 30 29
Fax +961 4 52 10 29
info@gtclb.com

Lithuania
INSTABALT LIT UAB
Savanorių 187
Vilnius, 2053
Phone +370 52 322 295
Fax +370 52 322 247
info@instabalt.lt

Luxembourg
Please contact WAGO Belgium

Malaysia
WAGO Automation Sdn. Bhd.
No 806, Block A4, Leisure Commerce Square,
No 9, Jalan PJS 8/9, 46150 Petaling Jaya,
Selangor Darul Ehsan, Malaysia
Phone +60 3 7877 1776
Fax +60 3 7877 2776
info-my@wago.com

Maledivea
Please contact WAGO India

Mexico
WAGO S.A. de C.V.
Carretera estatal 431 Km. 2+200
Lote 99 Módulo 6
Parque Industrial Tecnológico Innovsción
Querétaro
El Marqués, Qro. 76246
Phone +52 442 221 5946
Fax +52 442 221 5063
info.mx@wago.com

Morocco
Automatisme & Connection Maroc
23, Rue Boured
2ème étage, appt4
Roche Noire
20300 Casablanca
Phone +212 522 24 21 72/73
Fax +212 522 24 21 75
info-fr@wago.com

Nepal
Please contact WAGO India

Netherlands
WAGO Nederland B.V.
Laan van de Ram 19
7234 BW APELDOORN
Phone +31 55 36 83 500
Fax +31 55 36 83 599
info-nl@wago.com

New Zealand
Please contact WAGO Australia

Engineering Computer Services Ltd
7-19 Ruffell Rd
Hamilton, 3200
New Zealand
Phone +64 (0) 7 849 2211
Fax +64 (0) 7 849 2220
sales@ecsnz.com

Nigeria
GIL Automations Ltd.
Daily Times Complex
2 Lateef Jakande Rd., Agidingbi
100271 Ikeja, Lagos State
Phone +234 17132672335
sales@gilautomation.com

Norway
WAGO Norge AS
Jerikoveien 20
1067 Oslo
Phone +47 22 30 94 50
Fax +47 22 30 94 51
info.no@wago.com

Oman
Please contact WAGO Middle East

Pakistan
FuziLogiX Automation & Control
Suit No. 14, 5th Floor, Shan Arcade
New Garden Town, Lahore
Phone +92 42 594 1503 - 4
Fax +92 42 585 1431
info@fuzilogix.com

S.A. Hamid & Co.
7 Brandreth Road
Lahore, 54000
Phone +92 42 376 500 99
Fax +92 42 376 513 91
sales@sahamid.com

Paraguay
AESA
Av. Madame Lynch
c/Antolin Irala
2309 Asunción
Phone +59 521674524
info@aesa.com.py

Philippines
Please contact WAGO Singapore

Poland
WAGO ELWAG sp. z o. o.
ul. Piękna 58 a
50-506 Wrocław
Phone +48 71 3602970
Fax +48 71 3602999
wago.elwag@wago.com

Portugal
MORGADO & CA. LDA - SEDE
Estrada Exterior da
Circunvalação 3558/3560
Apartado 1057
4435 Rio Tinto
Phone +351 22 9770600
Fax +351 22 9770699
geral@morgadocl.pt

Quatar
GEBD - Gulf European Business
Development - Company W.L.L.)
PO Box: 20 000
Doha, Quatar
Phone +974 5591 5682
info@gebdc.com

Republic of Moldova
Smart Delight SRL
Bulgara Str. 9/6
2001 Chisinau
Phone +373 (373) 69 10 22 01
alexandres@starnet.md

Republic of North Macedonia
Please contact WAGO Bulgaria

Kompjunet Inzenering
Vladimir Komarov 1A-3/9
1000 Skopje
Phone +389 2 521 12 00

Romania
WAGO Kontakttechnik GmbH & Co. KG
Representative Office Romania
Sos. Pipera-Tunari nr. 1/1
building 1, 2nd floor
077190 Voluntari, Ilfov
Phone +40-(0)31 421 85 68
info-RO@wago.com

Russia
OOO WAGO Contact Rus
Ilimskaya strret 5, bldg. 2
127576 Moscow
Phone +7 495 223-4747
info.ru@wago.com
www.wago.ru

Saudi Arabia
Saudi Electronic Trading
P.O. Box 60712
Riyadh 11555
Phone +966 11 2063 377
Fax +966 11 4633 297
info@setra.com.sa

Serbia
Please contact WAGO Bulgaria

Mehatronik Sistem d.o.o.
Bul. Oslobodjenja 30
32000 Cacak
Phone +381 (0)32 310 088
Fax. +381 (0)32 371 571
Mobil +381 (0)64 877 22 02
office@mehatronik.com

Sigma Controls Engineering d.o.o.
Jovana Skerlica 22
18000 Nis
Mobil +381 (0)63 403 104
zeljko.savic@sce.rs

Singapore
WAGO Electronic Pte Ltd
138 Joo Seng Road #06-01
Singapore 368361
Phone +65 62866776
Fax +65 62842425
info-sing@wago.com

Slovakia
Proelektro spol. s r.o.
Na barine 22
841 03 Bratislava - Lamač
Phone +421 2 4569 2503
info@wago.sk

Slovenia
IC elektronika d.o.o.
Vodovodna cesta 100
1000 Ljubljana
Phone +386 1568 01 26
Fax +386 1568 91 07
info@ic-elect.si

Slovenia
Elektronabava d.o.o.
Cesta 24 junija 3
1231 Ljubljana
Phone +386 1 58 99 300
Fax +386 1 58 99 409
info@elektronabava.si

South Africa
Shorrock Automation CC
Nellmapius drive
5 Regency Drive, Route 21 Corp. Park
0051 Centurion
Phone +27 12 4500300
Fax +27 12 4500322
sales@shorrock.co.za

Spain
DICOMAT S.L.
Avda. de la Industria, 36
Apartado Correos, 1.178
28108-Alcobendas (Madrid)
Phone +34 91 662 1362
Fax +34 91 661 0089
info@dicomat-asetyc.com

Sri Lanka
Please contact WAGO India

Sweden
WAGO Sverige AB
Box 11127, 161 11 BROMMA
Besöksadress: Adolfsbergsv. 31
Phone +46 858410680
info.se@wago.com

Switzerland
WAGO CONTACT SA
Rte. de l'Industrie 19
Case Postale 168
1564 Domdidier
Phone +41/26 676 75 00
Fax +41/26 676 75 01
info.switzerland@wago.com

Syria
Please contact WAGO Middle East

Taiwan R.O.C.
WAGO Contact, Ltd.
5F., No.168, Jiankang Rd
Zhonghe City
Taipei County 23585, Taiwan
Phone +886 2 2225 0123
Fax +886 2 2225 1511
info.taiwan@wago.com

Thailand
WAGO Contact Ltd.
4th Floor, KS Building
213/6-8 Rachada-Phisek Road
Dingdaeng Bangkok 10400
Phone +66 2 6935611
Fax +66 2 6935612
info-th@wago.com

Tunisia
Please contact WAGO France

Turkey
WAGO Elektronik Sanayi ve Ticaret Ltd. Şti.
Yukarı Dudullu Mahallesi Bayraktar Bulvarı
Cad. Hattat Sok. No. 10
34775 Ümraniye - Istanbul
Phone +90 216 472 1133
Fax +90 216 472 9910
info.tr@wago.com

Ukraine
LLC RPE „Logicon"
Predslavinskaya street, 37, office 303
03150 Kiev
Phone +380 44 5228019
Fax +380 44 2611803
info@logicon.ua

Micropribor Ltd.
4, Krzhizhanovsky Str.
03142 Kiev
Phone +380 44 392 93 86
Fax +380 44 392 93 87
sales@micropribor.kiev.ua

United Arab Emirates (UAE)
WAGO Middle East (FZC)
SAIF Zone, Q4-282
P.O. Box 120665
Sharjah, UAE
Phone +971 6 5579920
Fax +971 6 5579921
info.uae@wago.com

Uruguay
Fivisa Electricidad
Avda. Urugay 1274
11100 Montevideo
Phone +59 829 020 808
Fax +59 829 021 230
info@fivisa.com.uy

USA
WAGO CORPORATION
N120 W19129 Freistadt Road
Germantown, WI 53022
Phone +1 262 255 6222
Fax +1 262 255 3232
Toll-Free: 1-800 DIN Rail (346-7245)
info.us@wago.com

Venezuela
PETROBORNAS, C.A.
C.C. PLAZA AEROPUERTO - PISO 1 - LOCAL P1-B-03
(8015) UNARE - PUERTO ORDAZ - ESTADO BOLÍVAR
REPÚBLICA BOLIVARIANA DE VENEZUELA
Phone +58 286 951 3382
Fax +58 286 951 3382
info@petrobornas.com

Vietnam
Please contact WAGO Germany (Minden)

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Current adresses at www.wago.com

Success for generations: environmental protection at WAGO

At WAGO, we see environmental protection not only as compliance with environmental protection requirements.

As a growing company, our commitment to the environment drives our efforts to deliver new ideas, new concepts and new technologies along the product lifecycle. Here our employees and business partners support us.

Corporate environmental protection

Business growth also leads to higher consumption of resources. We have realized that the economic success of a company also depends on the achievement of environmental goals.
As a manufacturing company, we therefore support developments that make a contribution to environmental protection. In doing so, we always pursue individual material flows along the value chain, because we see resources, product design, production and consumption as a whole.
With our environmental management system certified in accordance with DIN EN ISO 14001, we ensure that the required national and international requirements are complied with in all areas of the company and that the concept of environmental protection is practiced in all corporate processes. In addition, WAGO is pursuing further efforts in the field of environmental protection that go far beyond the requirements of ISO
Some examples include the recycling of plastics, resource savings on product and packaging materials, the use of recycled paper throughout the company, the introduction of e-filling stations and the use of waste heat from production processes.

Product-related environmental protection

Product-related environmental protection is an important part of sustainable environmental management at WAGO. Ensuring compliance with substance bans / restrictions worldwide, such as: As REACH, RoHS has a high priority.

RoHS – Restriction of the use of certain Hazardous Substances

It is an EC directive that regulates the use of certain hazardous substances in electrical and electronic equipment. In addition to reducing the harmful effects on humans and the environment, legislation aims to improve recycling possibilities. WAGO closely monitors the development regarding RoHS and reacts promptly to specifications accordingly. For more information about RoHS please contact us via ehs-product-compliance@wago.com.

RoHS ✓ Compliant

Success for generations: environmental protection at WAGO

REACH – Registration, Evaluation and Authorisation of Chemicals

On 01.06.2007 the regulation (EC) no. 1907/2006 (REACH regulation) came into force and since then forms a valid legal basis for all EU member states. To protect human health and the environment, this EU Chemicals Regulation aims to classify and identify all chemicals, including their effects.

The REACH Regulation creates specific obligations for each actor in the supply chain. The products manufactured by WAGO are to be designated as products in the sense of the regulation. Since products are not subject to registration, WAGO usually assumes the role of the downstream user in the supply chain. WAGO therefore has an obligation to provide information along the supply chain in accordance with REACH Article 33. WAGO is naturally aware of this obligation.

BOMcheck

European legislation such as REACH or RoHS requires the provision of information on restricted ingredients in products. This information must be shared by manufacturers and suppliers in the supply chain. WAGO meets this challenge in product-related environmental protection successfully and efficiently with BOMcheck.

BOMcheck is a centralized database for the declaration of ingredients. It is a compliance tool specifically designed to enable manufacturers and suppliers to produce their substance declarations under REACH, RoHS, and other restrictions on ingredients in an efficient and structured manner. This Internet database system increases data quality in the area of product-related environmental protection.

Further information on BOMcheck can be found at the following link: http://www.bomcheck.net

WEEE – Waste of Electrical and Electronic Equipment

The WEEE Directive 2012/19/EU regulates the take-back and recycling of electrical and electronic equipment. Manufacturers and importers of electrical and electronic equipment are obliged to register as a `WEEE producer´ and to comply with the reporting and take-back obligations. As a matter of course, we have taken compliance with legal WEEE requirements very seriously all the time - in our own interest as well as in the well-understood interest of our customers.
Only some of our products fall within the scope of the WEEE Directive and the Member State's implementation laws. These products are WEEE-compliant marked by us, as far as such a marking is legally required (which is not required for the B2B area Europe-wide).
For more information about WEEE please contact us via ehs-product-compliance@wago.com.

Less is more: our packaging

Recycling is the basis for choosing our packaging materials. All packaging used by WAGO can be recycled in the economic cycle without further pretreatment. In addition to the aspect of recycling, emphasis is placed on resource conservation. For this reason, our cardboard boxes consist of 80% recycled paper and are marked with the Resy symbol. The Resy symbol guarantees compliance with the Packaging Ordinance for transport packaging. The labeling is partly done by perforation. This process enables the colorless printing of WAGO cardboard boxes. This avoids unnecessary environmental pollution.

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0888-9002/0100-6901 – WAGO PCB Terminal Blocks and Connectors 2021/2022 GB – 03/2021-00 – Printed in Germany – Subject to changes

WAGO Kontakttechnik GmbH & Co. KG
Postfach 2880 · D · 32385 Minden
Hansastraße 27 · D · 32423 Minden
info@wago.com
www.wago.com

Headquarters	+49 571 887 - 0
Sales	+49 571 887 - 44222
Order Service	+49 571 887 - 44333
Fax	+49 571 887 - 844169

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