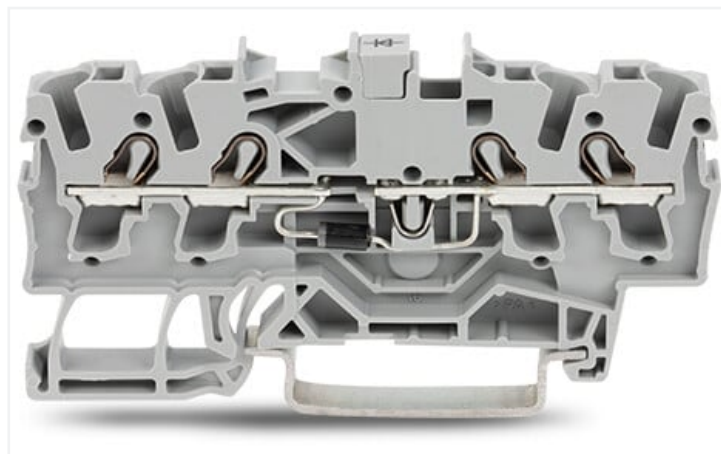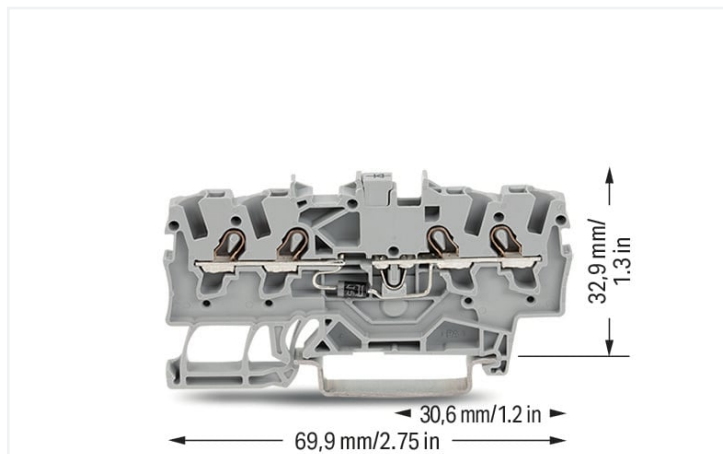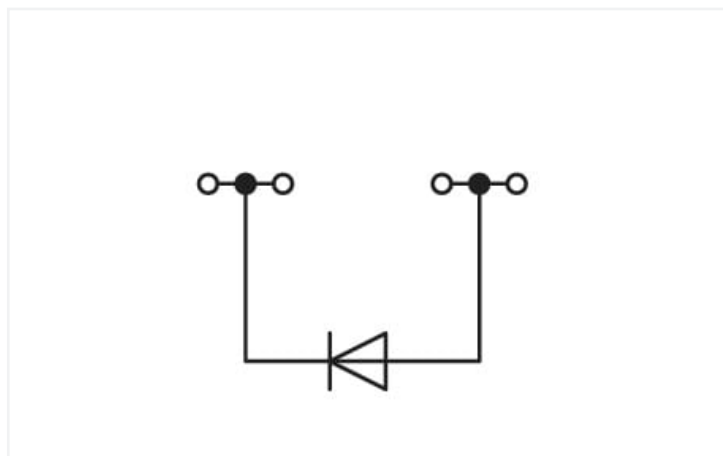# Data Sheet | Item Number: 2002-1411/1000-411

Component terminal block; 4-conductor; with diode 1N4007; anode, right side; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; Push-in CAGE CLAMP®; 2,50 mm²; gray

https://www.wago.com/2002-1411/1000-411

Color: gray

2002-1411/1000-411

Electrical data

Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-1
Rated current	0.5 A

General

Nominal voltage	250 V
Reverse voltage	1000 V

Connection data

Connection points	4
Total number of potentials	1
Number of levels	1
Number of jumper slots	1

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Nominal cross-section	2.5 mm²
Solid conductor	0.25 … 4 mm² / 22 … 12 AWG
Solid conductor; push-in termination	0.75 … 4 mm² / 18 … 12 AWG
Fine-stranded conductor	0.25 … 4 mm² / 22 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm² / 22 … 14 AWG
Fine-stranded conductor; with ferrule; push-in termination	1 … 2.5 mm² / 18 … 14 AWG

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Connection 1

Note (conductor cross-section)	Depending on the conductor characteristic, a conductor with a smaller cross-section can also be inserted via push-in termination.
Strip length	10 … 12 mm / 0.39 … 0.47 inches
Wiring direction	Front-entry wiring

Physical data

Width	5.2 mm / 0.205 inches
Height	69.9 mm / 2.752 inches
Depth from upper-edge of DIN-rail	32.9 mm / 1.295 inches

Mechanical data

Mounting type	DIN-35 rail
Marking level	Center/side marking

Material data

Note (material data)	Information on material specifications can be found here
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.175 MJ
Weight	7.7 g

Environmental requirements

Processing temperature	-35 … +85 ℃
Continuous operating temperature	-60 … +105 ℃

Commercial data

Product Group	22 (TOPJOB S)
eCl@ss 10.0	27-14-11-27
eCl@ss 9.0	27-14-11-27
ETIM 8.0	EC000903
ETIM 7.0	EC000903
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	CN
GTIN	4045454536336
Customs tariff number	85369010000

Approvals / Certificates

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
Railway WAGO GmbH & Co. KG	-	Railway Ready

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2002-1411/1000-411 ↓

Documentation

Additional Information

Technical Section   pdf 2142.18 KB ↓

Bid Text

2002-1411/1000-411	29.04.2019	xml 3.91 KB	↓
2002-1411/1000-411	23.04.2019	docx 15.12 KB	↓

CAD/CAE-Data

CAD data

2D/3D Models 2002-1411/1000-411 ↓

CAE data

EPLAN Data Portal 2002-1411/1000-411 ↓

WSCAD Universe 2002-1411/1000-411 ↓

ZUKEN Portal 2002-1411/1000-411 ↓

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate

Item No.: 2002-1491
End and intermediate plate; 0.8 mm thick; gray

Item No.: 2002-1492
End and intermediate plate; 0.8 mm thick; orange

Item No.: 2002-1493
Seperator plate; 2 mm thick; oversized; gray

Item No.: 2002-1494
Seperator plate; 2 mm thick; oversized; orange

1.2 Optional Accessories

1.2.1 DIN-rail

1.2.1.1 Mounting accessories

Item No.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

Item No.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored

Item No.: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored

Item No.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored

Item No.: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored

Item No.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

Item No.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

Item No.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored

Item No.: 210-112
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored

Item No.: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored

Item No.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

Item No.: 210-505
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

1.2.2 Ferrule

1.2.2.1 Ferrule

Item No.: 216-241
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

Item No.: 216-242
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

Item No.: 216-262
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

Item No.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

Item No.: 216-263
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

Item No.: 216-244
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-264
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-246
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

Item No.: 216-266
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

1.2.3 Installation

1.2.3.1 Cover

Item No.: 709-156
Cover; Type 3; suitable for cover carrier, type 3; 1 m long; transparent

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1.2.3.2 Cover carrier

Item No.: 709-169
Cover carrier; Type 3; gray

1.2.4 Insulation stop

1.2.4.1 Insulation stop

Item No.: 2002-171
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/ strip; light gray

Item No.: 2002-172
Insulation stop; 0.75 - 1 mm²; 5 pieces/ strip; dark gray

1.2.5 Jumper

1.2.5.1 Jumper

Item No.: 2002-400
Continuous jumper; 2-way; insulated; light gray

Item No.: 2002-423/000-006
Continuous jumper; from 1 to 3; insulated; blue

Item No.: 2002-423
Continuous jumper; from 1 to 3; insulated; light gray

Item No.: 2002-423/000-005
Continuous jumper; from 1 to 3; insulated; red

Item No.: 2002-424/000-006
Continuous jumper; from 1 to 4; insulated; blue

Item No.: 2002-424
Continuous jumper; from 1 to 4; insulated; light gray

Item No.: 2002-424/000-005
Continuous jumper; from 1 to 4; insulated; red

Item No.: 2002-406/020-000
Delta jumper; insulated; light gray

Item No.: 2002-410/000-006
Jumper; 10-way; insulated; blue

Item No.: 2002-410
Jumper; 10-way; insulated; light gray

Item No.: 2002-410/000-005
Jumper; 10-way; insulated; red

Item No.: 2002-402/000-006
Jumper; 2-way; insulated; blue

Item No.: 2002-402
Jumper; 2-way; insulated; light gray

Item No.: 2002-402/000-005
Jumper; 2-way; insulated; red

Item No.: 2002-403/000-006
Jumper; 3-way; insulated; blue

Item No.: 2002-403
Jumper; 3-way; insulated; light gray

Item No.: 2002-403/000-005
Jumper; 3-way; insulated; red

Item No.: 2002-404/000-006
Jumper; 4-way; insulated; blue

Item No.: 2002-404
Jumper; 4-way; insulated; light gray

Item No.: 2002-404/000-005
Jumper; 4-way; insulated; red

Item No.: 2002-405/000-006
Jumper; 5-way; insulated; blue

Item No.: 2002-405
Jumper; 5-way; insulated; light gray

Item No.: 2002-405/000-005
Jumper; 5-way; insulated; red

Item No.: 2002-406/000-006
Jumper; 6-way; insulated; blue

Item No.: 2002-406
Jumper; 6-way; insulated; light gray

Item No.: 2002-406/000-005
Jumper; 6-way; insulated; red

Item No.: 2002-407/000-006
Jumper; 7-way; insulated; blue

Item No.: 2002-407
Jumper; 7-way; insulated; light gray

Item No.: 2002-407/000-005
Jumper; 7-way; insulated; red

Item No.: 2002-408/000-006
Jumper; 8-way; insulated; blue

Item No.: 2002-408
Jumper; 8-way; insulated; light gray

Item No.: 2002-408/000-005
Jumper; 8-way; insulated; red

Item No.: 2002-409/000-006
Jumper; 9-way; insulated; blue

Item No.: 2002-409
Jumper; 9-way; insulated; light gray

Item No.: 2002-409/000-005
Jumper; 9-way; insulated; red

Item No.: 2002-440
Jumper; from 1 to 10; insulated; light gray

Item No.: 2002-433
Jumper; from 1 to 3; insulated; light gray

Item No.: 2002-434
Jumper; from 1 to 4; insulated; light gray

Item No.: 2002-435
Jumper; from 1 to 5; insulated; light gray

Item No.: 2002-436
Jumper; from 1 to 6; insulated; light gray

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1.2.5.1 Jumper

Item No.: 2002-437
Jumper; from 1 to 7; insulated; light gray

Item No.: 2002-438
Jumper; from 1 to 8; insulated; light gray

Item No.: 2002-439
Jumper; from 1 to 9; insulated; light gray

Item No.: 2002-480
Staggered jumper; 10-way; insulated; light gray

Item No.: 2002-481
Staggered jumper; 11-way; insulated; light gray

Item No.: 2002-482
Staggered jumper; 12-way; insulated; light gray

Item No.: 2002-472
Staggered jumper; 2-way; insulated; light gray

Item No.: 2002-473
Staggered jumper; 3-way; insulated; light gray

Item No.: 2002-474
Staggered jumper; 4-way; insulated; light gray

Item No.: 2002-475
Staggered jumper; 5-way; insulated; light gray

Item No.: 2002-476
Staggered jumper; 6-way; insulated; light gray

Item No.: 2002-477
Staggered jumper; 7-way; insulated; light gray

Item No.: 2002-478
Staggered jumper; 8-way; insulated; light gray

Item No.: 2002-479
Staggered jumper; 9-way; insulated; light gray

Item No.: 2002-405/011-000
Star point jumper; 3-way; insulated; light gray

Item No.: 210-103
Wire commoning chain; insulated; black

Item No.: 210-123
Wire commoning chain; insulated; blue

1.2.6 Marking

1.2.6.1 Group marker carrier

Item No.: 2009-191
Group marker carrier; gray

Item No.: 2009-192
Group marker carrier; gray

Item No.: 2009-193
Group marker carrier; gray

1.2.6.2 Marker

Item No.: 2009-145/000-006
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 2009-145/000-002
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

Item No.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue

Item No.: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

Item No.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

Item No.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

Item No.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

Item No.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

Item No.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

Item No.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

Item No.: 248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

Item No.: 793-5501/000-006
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 793-5501/000-014
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown

Item No.: 793-5501/000-007
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray

WAGO

1.2.6.2 Marker

Item No.: 793-5501/000-023	Item No.: 793-5501/000-017	Item No.: 793-5501/000-012	Item No.: 793-5501/000-005
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green	WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green	WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange	WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 793-5501/000-024	Item No.: 793-5501	Item No.: 793-5501/000-002	Item No.: 2009-115/000-006
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet	WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white	WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 2009-115/000-007	Item No.: 2009-115/000-023	Item No.: 2009-115/000-017	Item No.: 2009-115/000-012
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green	WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 2009-115/000-005	Item No.: 2009-115/000-024	Item No.: 2009-115	Item No.: 2009-115/000-002
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red	WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.2.6.3 Marker carrier

Item No.: 2002-161	Item No.: 2009-198
Adaptor; gray	Adaptor; gray

1.2.6.4 Marking strip

Item No.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.2.7 Protective warning marker

1.2.7.1 Cover

Item No.: 2002-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.8 Push-in type wire jumper

1.2.8.1 Jumper

Item No.: 2009-414
Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black

Item No.: 2009-414/000-005
Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black

Item No.: 2009-416
Push-in type wire jumper; 1.5 mm²; insulated; 250 mm long; black

Item No.: 2009-414/000-006
Push-in type wire jumper; insulated; 110 mm long; black

Item No.: 2009-412
Push-in type wire jumper; insulated; 60 mm long; black

1.2.9 Test and measurement

1.2.9.1 Testing accessories

Item No.: 2002-560
Modular TOPJOB®S connector; modular; for jumper contact slot; 10-pole; 2,50 mm²; gray

Item No.: 2002-511
Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; 2,50 mm²; gray

Item No.: 2002-552
Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; 2,50 mm²; gray

Item No.: 2002-553
Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; 2,50 mm²; gray

Item No.: 2002-554
Modular TOPJOB®S connector; modular; for jumper contact slot; 4-pole; 2,50 mm²; gray

Item No.: 2002-555
Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; 2,50 mm²; gray

Item No.: 2002-556
Modular TOPJOB®S connector; modular; for jumper contact slot; 6-pole; 2,50 mm²; gray

Item No.: 2002-557
Modular TOPJOB®S connector; modular; for jumper contact slot; 7-pole; 2,50 mm²; gray

Item No.: 2002-558
Modular TOPJOB®S connector; modular; for jumper contact slot; 8-pole; 2,50 mm²; gray

Item No.: 2002-559
Modular TOPJOB®S connector; modular; for jumper contact slot; 9-pole; 2,50 mm²; gray

Item No.: 2002-549
Spacer module; modular; e.g., for bridging commoned terminal blocks; gray

Item No.: 2009-174
Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray

Item No.: 2009-182
Testing tap; for max. 2.5 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray

Item No.: 2002-649
TOPJOB®S L-type spacer module; modular; e.g., for bridging commoned terminal blocks; gray

Item No.: 2002-611
TOPJOB®S L-type test plug module; modular; 1-pole; 2,50 mm²; gray

1.2.10 Tool
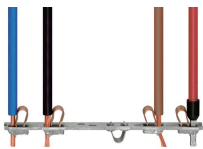
1.2.10.1 Operating tool

Item No.: 210-658
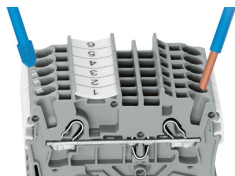Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured
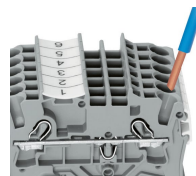
Installation Notes
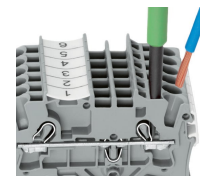
Conductor termination


All conductor types at a glance

Push-in termination of solid and ferruled conductors

Inserting a conductor via push-in termination:
Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in – no tools needed.


Inserting a conductor via operating tool:
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.
Advantage:
To open the clamp, the operating tool is inserted vertically. The conductor entry is less than 15 degrees for easier wiring.
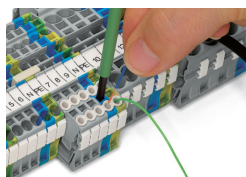
Conductor termination – insulation stop

Commoning
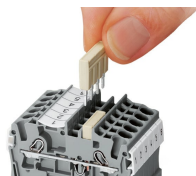
Insert push-in type jumper bar and push down until it hits backstop.
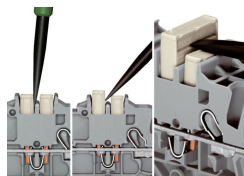

Removing a push-in type jumper bar:
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

Commoning
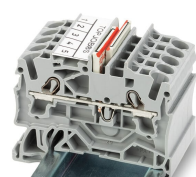
Orient the staggered jumpers' red stripes on the inside.
Insert the staggered jumper and push down until it hits the backstop.
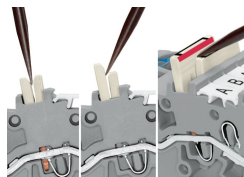
Removing a staggered jumper:
Insert the operating tool between the staggered jumpers, then lift up the jumper.

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Commoning

Continuous jumpers (2002 Series) readily connect an endless number of terminal blocks to each other via single jumper slot. Use the second jumper slot for additional commoning or testing.
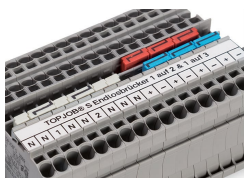
The 1-to-3 adjacent jumper for continuous commoning enables every other terminal block to be commoned. For example, positive and negative potentials can be accommodated alongside each other.
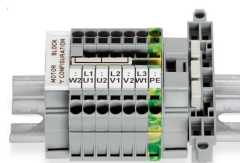
This star point jumper has been specially developed to create a "star point" and is used on motor terminal boards equipped with Rail-Mount Terminal Blocks TOP-JOB® S.
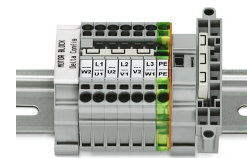
This delta jumper has been specially developed to create a delta configuration and is used on motor terminal boards equipped with rail-mount terminal blocks TOPJOB® S.
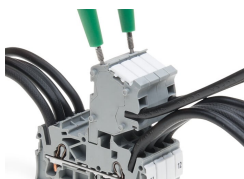
These diode terminal blocks have been specially developed for custom diode circuits, such as lamp test and collective fault signal circuits.
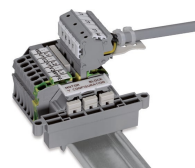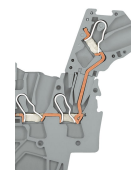
Testing

The modular TOPJOB® S connectors also connect conductors of the same size as the terminal blocks being used.

TOPJOB® S Connectors with a 2 mm Ø test socket for testing voltage via 2-pole voltage tester

Rail-mount terminal block assembly for electric motor wiring

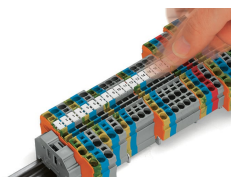L-type test plug module – cross-sectional view of contacts

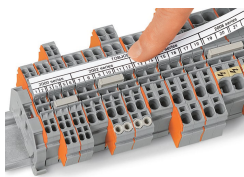Test plug adapter (2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series

Testing tap (2009-182) for tool-free connection of test cables up to 2.5 mm² (12 AWG) – compatible with 2000 to 2016 Series

Marking

Snapping WMB Inline markers into marker slots.

Polarized diode gates with a common cathode can be created using the following terminal blocks:
2002-1411/1000-410 or
2002-1411/1000-411

Current addresses can be found at:: www.wago.com