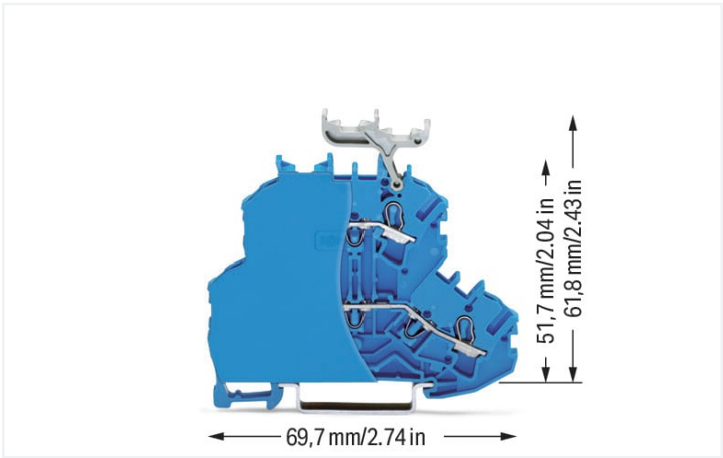
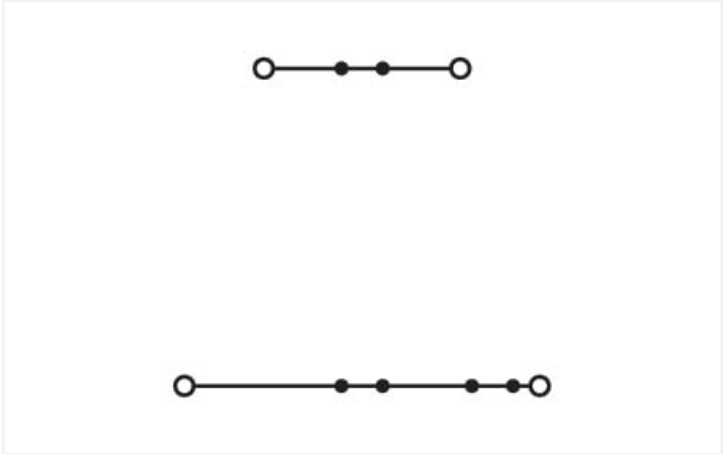
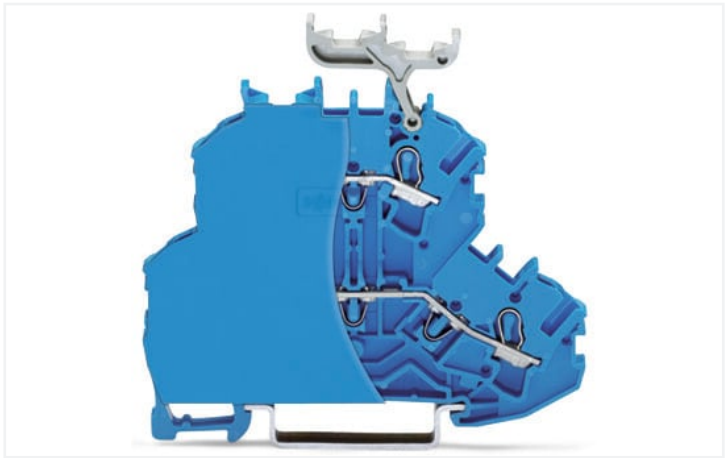


**Data Sheet | Item Number: 2002-2234/099-000**  
Double-deck terminal block; Through/through terminal block; with end plate; N/N;  
with marker carrier; suitable for Ex i applications; for DIN-rail 35 x 15 and 35 x 7.5;  
2.5 mm²; Push-in CAGE CLAMP®; 2,50 mm²; blue  
<https://www.wago.com/2002-2234/099-000>



Color: ■ blue



Similar to illustration

| Electrical data                     |                                                                                                     |                  |       |       |
|-------------------------------------|-----------------------------------------------------------------------------------------------------|------------------|-------|-------|
| Ratings per                         |                                                                                                     | IEC/EN 60947-7-1 |       |       |
| Overvoltage category                | III                                                                                                 | III              | II    |       |
| Pollution degree                    | 3                                                                                                   | 2                | 2     |       |
| Nominal voltage                     | 800 V                                                                                               | -                | -     |       |
| Rated surge voltage                 | 8 kV                                                                                                | -                | -     |       |
| Rated current                       | 24 A                                                                                                | -                | -     |       |
| Approvals per                       |                                                                                                     | UL 1059          |       |       |
| Use group                           |                                                                                                     | B                | C     | D     |
| Rated voltage                       |                                                                                                     | 600 V            | 600 V | 600 V |
| Rated current                       |                                                                                                     | 20 A             | 20 A  | 5 A   |
| Approvals per                       |                                                                                                     | CSA 22.2 No 158  |       |       |
| Use group                           | B                                                                                                   | C                | D     |       |
| Rated voltage                       | 600 V                                                                                               | 600 V            | -     |       |
| Rated current                       | 20 A                                                                                                | 20 A             | -     |       |
| Ex information                      |                                                                                                     |                  |       |       |
| Reference hazardous areas           | See "Downloads – Documentation – Additional Information: Technical Section; Technical Explications" |                  |       |       |
| Ratings per                         | ATEX: PTB 03 ATEX 1162 U / IECEx: PTB 03.0004U (Ex eb IIC Gb)                                       |                  |       |       |
| Rated voltage EN (Ex e II)          | 440 V                                                                                               |                  |       |       |
| Rated current (Ex e II)             | 20 A                                                                                                |                  |       |       |
| Rated current (Ex e II) with jumper | 18 A                                                                                                |                  |       |       |



| Power Loss                                                   |           |
|--------------------------------------------------------------|-----------|
| Power loss, per pole (potential)                             | 0.7661 W  |
| Rated current I <sub>N</sub> for specified power loss        | 24 A      |
| Resistance value for specified, current-dependent power loss | 0.00133 Ω |

| Connection data               |   |                                                            |                                                                                                                                   |
|-------------------------------|---|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Connection points             | 4 | <b>Connection 1</b>                                        |                                                                                                                                   |
| Total number of potentials    | 2 | Connection technology                                      | Push-in CAGE CLAMP®                                                                                                               |
| Number of levels              | 2 | Number of connection points                                | 2                                                                                                                                 |
| Number of jumper slots        | 4 | Actuation type                                             | Operating tool                                                                                                                    |
| Number of jumper slots (rank) | 1 | 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                                                                                                     |
|                               |   | 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                                                                                                                |

| Connection 2                  |   |
|-------------------------------|---|
| Number of connection points 2 | 2 |

| Physical data                     |                        |
|-----------------------------------|------------------------|
| Width                             | 6.2 mm / 0.244 inches  |
| Height                            | 69.7 mm / 2.744 inches |
| Depth from upper-edge of DIN-rail | 61.8 mm / 2.433 inches |

| Mechanical data   |                     |
|-------------------|---------------------|
| Potential marking | N/N                 |
| Mounting type     | DIN-35 rail         |
| Marking level     | Center/side marking |

| Material data               |                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------|
| Note (material data)        | <a href="https://www.wago.com/us/material-specifications">Information on material specifications can be found here</a> |
| Color                       | blue                                                                                                                   |
| Material group              | I                                                                                                                      |
| Insulation material         | Polyamide (PA66)                                                                                                       |
| Flammability class per UL94 | V0                                                                                                                     |
| Fire load                   | 0.323 MJ                                                                                                               |
| Weight                      | 13.7 g                                                                                                                 |



| Environmental requirements       |                 |
|----------------------------------|-----------------|
| Processing temperature           | -35 ... +85 °C  |
| Continuous operating temperature | -60 ... +105 °C |

| Commercial data       |               |
|-----------------------|---------------|
| eCl@ss 10.0           | 27-14-11-20   |
| eCl@ss 9.0            | 27-14-11-20   |
| ETIM 8.0              | EC000897      |
| ETIM 7.0              | EC000897      |
| PU (SPU)              | 50 pcs        |
| Packaging type        | Box           |
| Country of origin     | DE            |
| GTIN                  | 4050821299080 |
| Customs tariff number | 85369010000   |

| Environmental Product Compliance |                         |
|----------------------------------|-------------------------|
| RoHS Compliance Status           | Compliant, No Exemption |

Approvals / Certificates

| General approvals                       |          |                  | Declarations of conformity and manufacturer's declarations |          |                  |
|-----------------------------------------|----------|------------------|------------------------------------------------------------|----------|------------------|
|                                         |          |                  |                                                            |          |                  |
| Approval                                | Standard | Certificate Name | Approval                                                   | Standard | Certificate Name |
| CCA<br>DEKRA Certification B.V.         | EN 60947 | NTR NL 7941      | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |
| KEMA/KEUR<br>DEKRA Certification B.V.   | EN 60947 | 71-124163        | Railway<br>WAGO GmbH & Co. KG                              | -        | Railway Ready    |
| UL<br>Underwriters Laboratories<br>Inc. | UL 1059  | E45172           | UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |

Approvals for marine applications

| Approval                                              | Standard | Certificate Name |
|-------------------------------------------------------|----------|------------------|
| ABS<br>American Bureau of Ship-<br>ping               | EN 60947 | 20-HG1941090-PDA |
| BV<br>Bureau Veritas S.A.                             | EN 60947 | 38586/B0 BV      |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd | -        | TAE00001V2       |



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance  
2002-2234/099-000

↓

Documentation

Additional Information

Technical Sectionpdf  
2240.62 KB

↓

Bid Text

2002-2234/099-00024.04.2019xml  
4.13 KB

↓

2002-2234/099-00018.04.2019docx  
15.16 KB

↓

CAD/CAE-Data

CAD data

2D/3D Models  
2002-2234/099-000

↓

CAE data

EPLAN Data Portal  
2002-2234/099-000

↓

WSCAD Universe  
2002-2234/099-000

↓

ZUKEN Portal  
2002-2234/099-000

↓

1 Compatible Products

1.1 Optional Accessories

1.1.1 DIN-rail

1.1.1.1 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



1.1.2 Ferrule

1.1.2.1 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

1.1.3 Installation

1.1.3.1 Cover



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

1.1.3.2 Cover carrier



**Item No.: 709-169**  
Cover carrier; Type 3; incl. fixing/retaining screws and knurled nut; suitable for 279 to 282 and 880 Series rail-mounted terminal blocks; suitable for 264 Series miniature rail-mounted terminal blocks; suitable for 270 Series sensor and actuator terminal blocks; gray

1.1.4 Insulation stop

1.1.4.1 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

## 1.1.5 Jumper

### 1.1.5.1 Jumper



**Item No.: 2004-406/020-000**

Delta jumper; insulated; light gray



**Item No.: 2004-410**

Jumper; 10-way; insulated; light gray



**Item No.: 2004-402**

Jumper; 2-way; insulated; light gray



**Item No.: 2004-403**

Jumper; 3-way; insulated; light gray



**Item No.: 2004-404**

Jumper; 4-way; insulated; light gray



**Item No.: 2004-405**

Jumper; 5-way; insulated; light gray



**Item No.: 2004-406**

Jumper; 6-way; insulated; light gray



**Item No.: 2004-407**

Jumper; 7-way; insulated; light gray



**Item No.: 2004-408**

Jumper; 8-way; insulated; light gray



**Item No.: 2004-409**

Jumper; 9-way; insulated; light gray



**Item No.: 2004-440**

Jumper; from 1 to 10; insulated; light gray



**Item No.: 2004-433**

Jumper; from 1 to 3; insulated; light gray



**Item No.: 2004-434**

Jumper; from 1 to 4; insulated; light gray



**Item No.: 2004-435**

Jumper; from 1 to 5; insulated; light gray



**Item No.: 2004-436**

Jumper; from 1 to 6; insulated; light gray



**Item No.: 2004-437**

Jumper; from 1 to 7; insulated; light gray



**Item No.: 2004-438**

Jumper; from 1 to 8; insulated; light gray



**Item No.: 2004-439**

Jumper; from 1 to 9; insulated; light gray



**Item No.: 2004-405/011-000**

Star point jumper; 3-way; insulated; light gray



**Item No.: 2002-492**

Vertical jumper; insulated; light gray



**Item No.: 2002-492/000-012**

Vertical jumper; insulated; orange



**Item No.: 210-103**

Wire commoning chain; insulated; black



**Item No.: 210-123**

Wire commoning chain; insulated; blue

## 1.1.6 Marking

### 1.1.6.1 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



1.1.6.1 Marker



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



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



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



**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; red



**Item No.: 793-5501/000-024**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet



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



**Item No.: 793-5501/000-002**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



**Item No.: 2009-115/000-006**  
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**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



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



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



**Item No.: 2009-115/000-012**  
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**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



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



**Item No.: 2009-115**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



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

1.1.6.2 Marker carrier



**Item No.: 2009-198**  
Adaptor; gray

1.1.6.3 Marking strip



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

1.1.7 Protective warning marker

1.1.7.1 Cover



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



1.1.8 Push-in type wire jumper

1.1.8.1 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

1.1.9 Screwless end stop

1.1.9.1 Mounting accessories



**Item No.: 249-117**  
Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



**Item No.: 249-116**  
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.1.10 Test and measurement

1.1.10.1 Testing accessories



**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.: 2002-611**  
TOPJOB®S L-type test plug module; modular; 1-pole; 2,50 mm²; gray

1.1.11 Tool

1.1.11.1 Operating tool



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



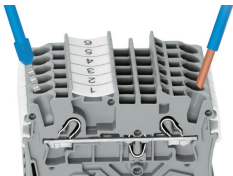
**Item No.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

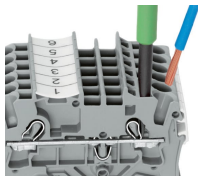
Conductor termination



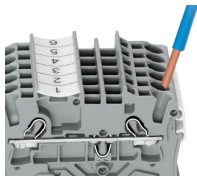
**All conductor types at a glance**



Push-in termination of solid and ferruled conductors

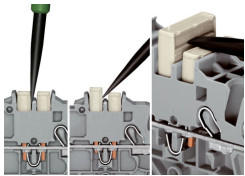


**Inserting a conductor via operating tool:**  
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.  
**Advantage:**  
To open the clamp, the operating tool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

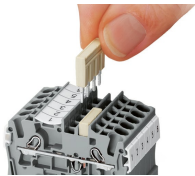


**Inserting a conductor via push-in termination:**  
Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in – no tools needed.

Commoning

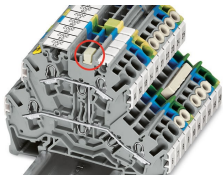


**Removing a push-in type jumper bar:**  
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.  
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than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



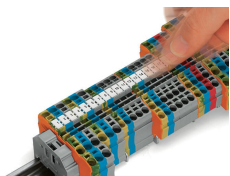
Insert push-in type jumper bar and push down until it hits backstop.

Commoning

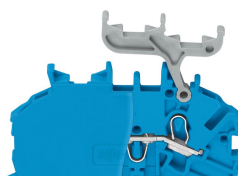
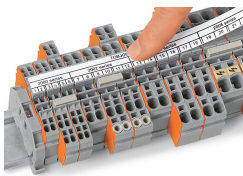


Commoning two levels via double-deck vertical jumper (2002-492).

Marking



Snapping WMB Inline markers into marker slots.



**Double-deck terminal blocks**  
A double-deck marker carrier (2002-121) can be retrofitted to double-deck terminal blocks without a marker carrier.