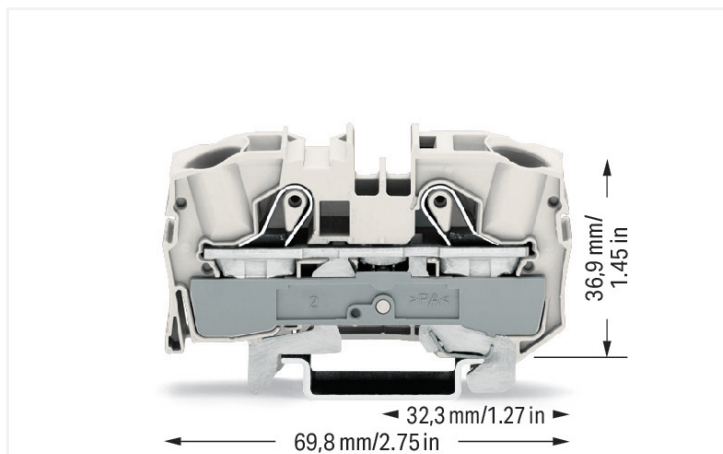


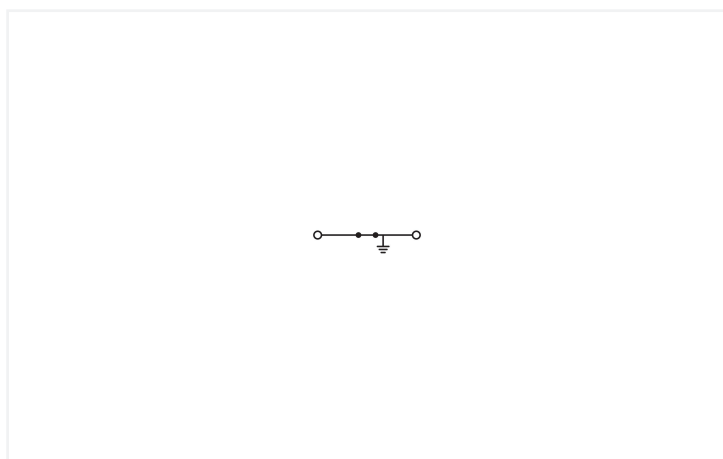
## Data Sheet | Item Number: 2016-1208

2-conductor shield terminal block; 16 mm<sup>2</sup>; suitable for Ex e II applications; side and center marking; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 16,00 mm<sup>2</sup>; white

<https://www.wago.com/2016-1208>



Color: ■ white



Similar to illustration

### Shield terminal block, 2016 Series, operating tool

Our shield terminal block (item number 2016-1208) ensures effortless electrical installations. Conductors should only be connected to this shield terminal block if their strip length is between 18 and 20 mm. By connecting to the mounting rail via an integrated contact foot, shield terminal blocks provide a reliable electrical and mechanical connection between electrical conductors and the mounting adapter. This allows them to suppress interference signals and ensure high signal quality. Featuring conductor terminals along with Push-in CAGE CLAMP®, this connector delivers reliable performance. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, featuring a winning design: both solid and fine-stranded conductors with ferrules can be directly inserted without the need for tools or any preparation, such as crimping the ferrule. This shield terminal block is suitable for conductor cross sections ranging from 0.5 mm<sup>2</sup> to 16 mm<sup>2</sup>.

This through rail-mount terminal block is operated with an operating tool. Our TOPJOB® S rail-mount terminal blocks guarantee secure electrical connections across many industrial applications and modern building installations. They make wiring work easier as you can quickly plug in solid, stranded, and fine-stranded conductors with ferrules.

## Electrical data

| Ratings per                     | IEC/EN 60947-7-2 |     |    |
|---------------------------------|------------------|-----|----|
|                                 | III              | III | II |
| Overvoltage category            | III              | III | II |
| Pollution degree                | 3                | 2   | 2  |
| Nominal voltage                 | -                | -   | -  |
| Rated impulse withstand voltage | -                | -   | -  |
| Rated current                   | -                | -   | -  |

## Ratings per IEC/EN – Notes

|                      |  |
|----------------------|--|
| Rated current (note) | 15 mm high DIN-35 rails shall be used for a current load higher than 76 A! |
|----------------------|--|

## General information

|                  |                    |
|------------------|--------------------|
| Wiring direction | Front-entry wiring |
|------------------|--------------------|

## Connection Data

|                            |   |
|----------------------------|---|
| Clamping units             | 2 |
| Total number of potentials | 1 |
| Number of levels           | 1 |
| Number of jumper slots     | 2 |

## Connection 1

|  |  |
|--|--|
| Connection technology                                      | Push-in CAGE CLAMP®  |
| Actuation type   | Operating tool   |
| Connectable conductor materials                            | Copper   |
| Nominal cross-section                                      | 16 mm <sup>2</sup>   |
| Solid conductor  | 0.5 ... 16 mm <sup>2</sup> / 20 ... 6 AWG  |
| Solid conductor; push-in termination                       | 6 ... 16 mm <sup>2</sup> / 14 ... 6 AWG  |
| Fine-stranded conductor                                    | 0.5 ... 25 mm <sup>2</sup> / 20 ... 4 AWG  |
| Fine-stranded conductor; with insulated ferrule            | 0.5 ... 16 mm <sup>2</sup> / 20 ... 6 AWG  |
| Fine-stranded conductor; with ferrule; push-in termination | 6 ... 16 mm <sup>2</sup> / 10 ... 6 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.<br>AWG specifications were converted according to IEC. |
| Strip length   | 18 ... 20 mm / 0.71 ... 0.79 inches  |
| Wiring direction   | Front-entry wiring   |

## Physical data

|                                   |                        |
|-----------------------------------|------------------------|
| Width                             | 12 mm / 0.472 inches   |
| Height                            | 69.8 mm / 2.748 inches |
| Depth from upper-edge of DIN-rail | 36.9 mm / 1.453 inches |

## Mechanical data

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

## Material data

|                                    |  |
|------------------------------------|--|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | white  |
| Material group                     | I  |
| Insulation material (main housing) | Polyamide (PA66)   |
| Flammability class per UL94        | V0   |
| Fire load                          | 0.255 MJ   |
| Weight                             | 36.3 g   |

## Environmental requirements

|   |  |   |
|---|--|---|
| Processing temperature  | -35 ... +85 °C   | <b>Environmental Testing</b>                        |
| Continuous operating temperature  | -60 ... +105 °C  |   |
| Test specification:   | Railway applications –<br>Rolling stock –<br>Electronic equipment                | DIN EN 50155 (VDE 0115-200):2022-06                 |
| Test procedure:   | Railway applications –<br>Rolling stock equipment –<br>Vibration and shock tests | DIN EN 61373 (VDE 0115-0106):2011-04                |
| Spectrum/Mounting location  |  | Service life test, Category 1, Class A/B            |
| Functional test with noise-like oscillations                                    |  | Test passed according to Section 8 of the standard  |
| Frequency   |  | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$      |
| Acceleration  |  | 0.101g (highest test level used for all axes)       |
| Test duration per axis  |  | 10 min.   |
| Test directions   |  | X, Y and Z axes                                     |
| Monitoring of contact faults and interruptions                                  |  | Passed  |
| Voltage drop measurement before and after each axis                             |  | Passed  |
| Simulated service life test through increased levels of noise-like oscillations |  | Test passed according to Section 9 of the standard  |
| Frequency   |  | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$      |
| Acceleration  |  | 0.572g (highest test level used for all axes)       |
| Test duration per axis  |  | 5 h   |
| Test directions   |  | X, Y and Z axes                                     |
| Extended testing: Monitoring of contact faults and interruptions                |  | Passed  |
| Extended testing: Voltage drop measurement before and after each axis           |  | Passed  |
| Shock test  |  | Test passed according to Section 10 of the standard |
| Shock pulse form  |  | Half sine   |
| Acceleration  |  | 5g (highest test level used for all axes)           |
| Shock duration  |  | 30 ms   |
| Number of shocks (per axis)   |  | 3 pos. und 3 neg.                                   |
| Test directions   |  | X, Y and Z axes                                     |
| Extended testing: Monitoring of contact faults and interruptions                |  | Passed  |
| Extended testing: Voltage drop measurement before and after each axis           |  | Passed  |
| Vibration and shock stress for rolling stock equipment                          |  | Passed  |

**Commercial data**

|                       |               |
|-----------------------|---------------|
| Product Group         | 22 (TOPJOB S) |
| PU (SPU)              | 20 pcs        |
| Packaging type        | Box           |
| Country of origin     | DE            |
| GTIN                  | 4050821193739 |
| Customs tariff number | 85369010000   |

**Product Classification**

|             |                      |
|-------------|----------------------|
| UNSPSC      | 39121410             |
| eCl@ss 10.0 | 27-14-11-41          |
| eCl@ss 9.0  | 27-14-11-41          |
| ETIM 9.0    | EC000901             |
| ETIM 10.0   | EC000901             |
| ECCN        | NO US CLASSIFICATION |

**Environmental Product Compliance**

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

**Approvals / Certificates**

**General approvals**



| Approval                              | Standard      | Certificate Name |
|---------------------------------------|---------------|------------------|
| CCA<br>DEKRA Certification B.V.       | EN 60947      | NTR NL-7881      |
| CSA<br>DEKRA Certification B.V.       | C22.2 No. 158 | 1579112          |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947      | 71-119271        |
| UL<br>Underwriters Laboratories Inc.  | UL 1059       | E45172           |

**Declarations of conformity and manufacturer's declarations**



| Approval   | Standard | Certificate Name |
|--|----------|------------------|
| EU-Declaration of Conformity<br>WAGO GmbH & Co. KG | -        | -                |
| Railway<br>WAGO GmbH & Co. KG                      | -        | Railway Ready    |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | -        | -                |

**Approvals for marine applications**



| Approval   | Standard | Certificate Name  |
|--|----------|-------------------|
| ABS<br>American Bureau of Shipping               | -        | 24-0152298-PDA    |
| DNV GL<br>Det Norske Veritas, Germanischer Lloyd | -        | TAE00001V2        |
| PRS<br>Polski Rejestr Statków                    | -        | TE/1094/880590/23 |

**Approvals for hazardous areas**



| Approval   | Standard    | Certificate Name                     |
|--|-------------|--------------------------------------|
| AEx<br>UL International Germany GmbH c/o Physikalisch Technische Bundesanstalt | UL 60079    | E185892 (AEx eb IIC resp. Ex eb IIC) |
| CCC<br>CQST/CNex   | GB/T 3836.3 | 2020312313000162                     |
| INMETRO<br>TÜV Rheinland do Brasil Ltda.                                       | IEC 60079   | TÜV 12.1313 U                        |

**Downloads**

**Environmental Product Compliance**

| Compliance Search                          |  |  |   |
|--|--|--|---|
| Environmental Product Compliance 2016-1208 |  |  | ↓ |

**Documentation**

| Bid Text  |            |                  |   |
|-----------|------------|------------------|---|
| 2016-1208 | 17.04.2019 | xml<br>3.95 KB   | ↓ |
| 2016-1208 | 15.04.2019 | docx<br>14.96 KB | ↓ |

**CAD/CAE-Data**

| CAD data               |   |
|------------------------|---|
| 2D/3D Models 2016-1208 | ↓ |

| CAE data                    |   |
|-----------------------------|---|
| EPLAN Data Portal 2016-1208 | ↓ |
| WSCAD Universe 2016-1208    | ↓ |

**1 Compatible Products**

**1.1 Required Accessories**

**1.1.1 End plate**

**1.1.1.1 End plate**



**Item No.: 2016-1291**  
End and intermediate plate; 1 mm thick; gray

**Item No.: 2016-1292**  
End and intermediate plate; 1 mm thick; orange

**1.2 Optional Accessories**

**1.2.1 Cover**

**1.2.1.1 Cover**



**Item No.: 2016-100**  
Finger guard; touchproof cover protects unused conductor entries; yellow

## 1.2.2 DIN-rail

### 1.2.2.1 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.: 210-197**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



**Item No.: 210-114**

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

## 1.2.3 Ferrule

### 1.2.3.1 Ferrule



**Item No.: 216-284**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-289**

Ferrule; Sleeve for 10 mm<sup>2</sup> / AWG 8; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-210**

Ferrule; Sleeve for 16 mm<sup>2</sup> / AWG 6; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-286**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-287**

Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-288**

Ferrule; Sleeve for 6 mm<sup>2</sup> / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

## 1.2.4 Installation

### 1.2.4.1 Cover



**Item No.: 709-156**

Cover; Type 3; suitable for cover carrier, type 3; 1 m long; transparent

### 1.2.4.2 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

1.2.5 Jumper

1.2.5.1 Jumper



**Item No.: 2016-402**  
Jumper; 2-way; insulated; light gray



**Item No.: 2016-403**  
Jumper; 3-way; insulated; light gray



**Item No.: 2016-404**  
Jumper; 4-way; insulated; light gray



**Item No.: 2016-405**  
Jumper; 5-way; insulated; light gray



**Item No.: 2016-433**  
Jumper; from 1 to 3; insulated; light gray



**Item No.: 2016-434**  
Jumper; from 1 to 4; insulated; light gray



**Item No.: 2016-435**  
Jumper; from 1 to 5; insulated; light gray



**Item No.: 2016-405/011-000**  
Star point jumper; 3-way; insulated; light gray



**Item No.: 2016-499**  
Step-down jumper; from 2016/2010 to 2010/2006/2004/2002 series; from 2216/2210 to 2210/2206/2204/2202 series; insulated; light gray

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.: 793-5501/000-007**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**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

**1.2.6.2 Marker**



**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.: 793-501/000-006**

WMB marking card; as card; not stretchable; plain; snap-on type; blue

**Item No.: 793-501/000-007**

WMB marking card; as card; not stretchable; plain; snap-on type; gray



**Item No.: 793-501/000-023**

WMB marking card; as card; not stretchable; plain; snap-on type; green

**Item No.: 793-501/000-017**

WMB marking card; as card; not stretchable; plain; snap-on type; light green

**Item No.: 793-501/000-012**

WMB marking card; as card; not stretchable; plain; snap-on type; orange

**Item No.: 793-501/000-005**

WMB marking card; as card; not stretchable; plain; snap-on type; red



**Item No.: 793-501/000-024**

WMB marking card; as card; not stretchable; plain; snap-on type; violet

**Item No.: 793-501**

WMB marking card; as card; not stretchable; plain; snap-on type; white

**Item No.: 793-501/000-002**

WMB marking card; as card; not stretchable; 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.: 2009-115/000-024**

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

**1.2.6.3 Marker carrier**



**Item No.: 2009-198**

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.: 2016-115**

Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

## 1.2.8 Screwless end stop

### 1.2.8.1 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

## 1.2.9 Test and measurement

### 1.2.9.1 Testing accessories



**Item No.: 2016-511**

Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; gray



**Item No.: 2016-549**

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 mm<sup>2</sup>; tool-free connection for individual test wires 0.08 - 2.5 mm; gray

## 1.2.10 Tool

### 1.2.10.1 Operating tool



**Item No.: 210-721**

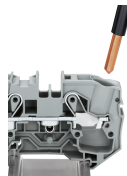
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

## Installation Notes

### Conductor termination

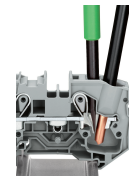
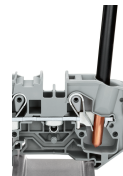


**All conductor types at a glance**



**Inserting a conductor via push-in termination.**

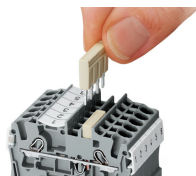
Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in – no tools needed.



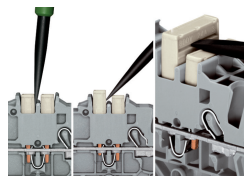
**Removing a solid conductor.**

Conductor removal is performed with an operating tool, just like CAGE CLAMP®.

## Commoning



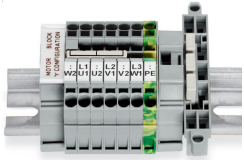
Insert push-in type jumper bar and push down until it hits backstop.



**Removing a push-in type jumper bar:**

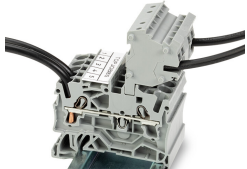
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper. Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

## Commoning

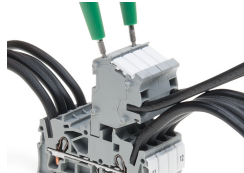


This star point jumper has been specially developed to create a "star point" and is used on motor terminal boards equipped with Rail-Mount Terminal Blocks TOPJOB® S.

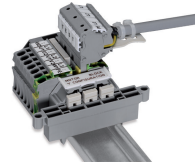
## Testing



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

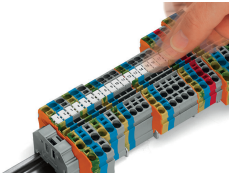


Test plug adapter (Item No. 2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series

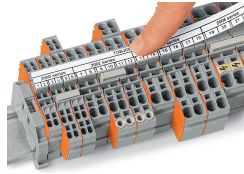


Testing tap (Item No. 2009-182) for tool-free connection of test cables up to 2.5 mm<sup>2</sup> (12 AWG) – compatible with 2000 to 2016 Series

## Marking



Snapping WMB Inline markers into marker slots.



TOPJOB® S 2009-193 Group Marker Carrier (equipped with a marking strip) for all 2001 to 2016 Series TOPJOB® S Rail-Mount Terminal Blocks  
Do not use on an end plate!

