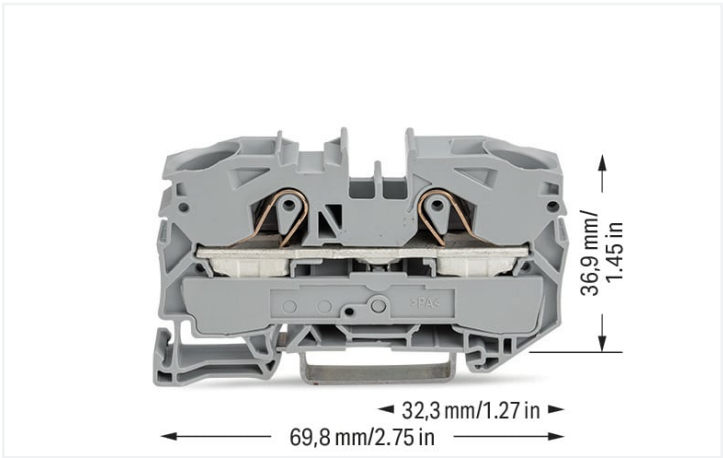


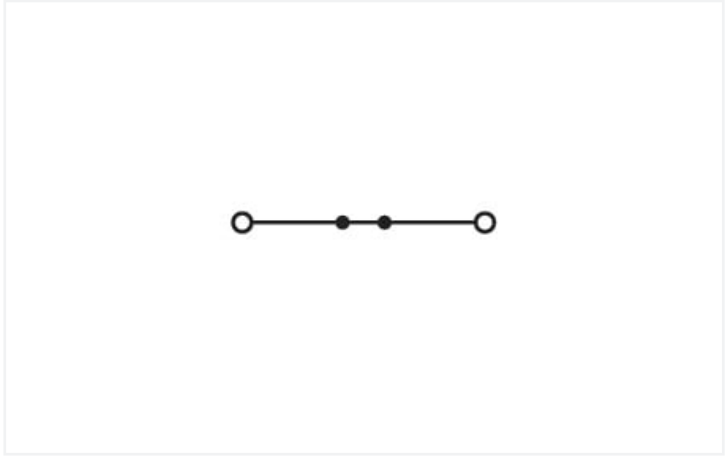
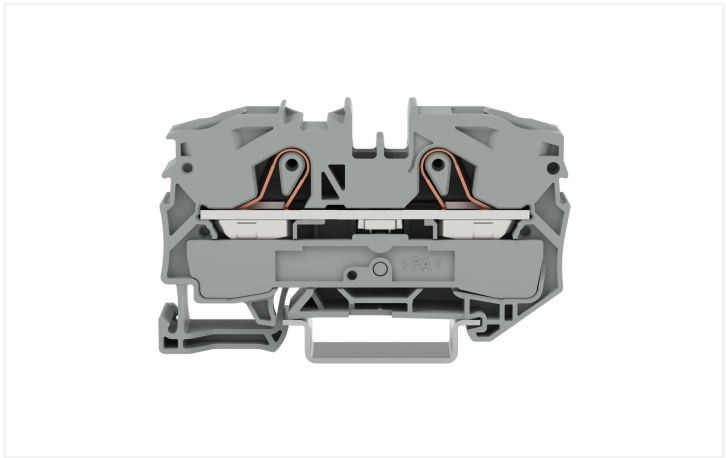
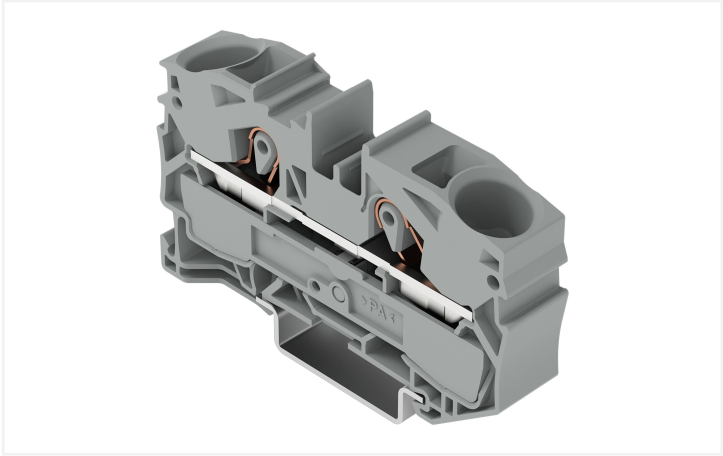
Data Sheet | Item Number: 2016-1201

2-conductor through terminal block; 16 mm²; 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 mm²; gray

<https://www.wago.com/2016-1201>



Color: ■ gray



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                                 |  | 76 A                                                                                                                                                  | -     | -  |
| Current at conductor cross-section (max.) mm² |  | 90 A                                                                                                                                                  | -     | -  |
| Approvals per                                 |  | UL 1059                                                                                                                                               |       |    |
| Use group                                     |  | B                                                                                                                                                     | C     | D  |
| Rated voltage                                 |  | 600 V                                                                                                                                                 | 600 V | -  |
| Rated current                                 |  | 85 A                                                                                                                                                  | 85 A  | -  |
| Approvals per                                 |  | CSA 22.2 No 158                                                                                                                                       |       |    |
| Use group                                     |  | B                                                                                                                                                     | C     | D  |
| Rated voltage                                 |  | 600 V                                                                                                                                                 | 600 V | -  |
| Rated current                                 |  | 80 A                                                                                                                                                  | 80 A  | -  |
| Ex information                                |  | Reference hazardous areas                                                                                                                             |       |    |
|                                               |  | See application instructions in section "Knowledge and Downloads – Documentation – Additional Information: Technical Section; Technical Explanations" |       |    |
| Ratings per                                   |  | ATEX: PTB 05 ATEX 1031 U / IECEx: PTB 05.0015U (Ex eb IIC Gb)                                                                                         |       |    |
| Rated voltage EN (Ex e II)                    |  | 550 V                                                                                                                                                 |       |    |
| Rated current (Ex e II)                       |  | 70 A                                                                                                                                                  |       |    |
| Rated current (Ex e II) with jumper           |  | 67 A                                                                                                                                                  |       |    |

### Power Loss

|                                                              |                  |
|--------------------------------------------------------------|------------------|
| Power loss, per pole (potential)                             | 2.4259 W         |
| Rated current $I_N$ for specified power loss                 | 76 A             |
| Resistance value for specified, current-dependent power loss | 0.00042 $\Omega$ |

### Connection data

|                            |   |                                                            |                                                                                                                                   |
|----------------------------|---|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Connection points          | 2 | <b>Connection 1</b>                                        |                                                                                                                                   |
| Total number of potentials | 1 | Connection technology                                      | Push-in CAGE CLAMP®                                                                                                               |
| Number of levels           | 1 | Actuation type                                             | Operating tool                                                                                                                    |
| Number of jumper slots     | 2 | Connectable conductor materials                            | Copper                                                                                                                            |
|                            |   | Nominal cross-section                                      | 16 mm²                                                                                                                            |
|                            |   | Solid conductor                                            | 0.5 ... 16 mm² / 20 ... 6 AWG                                                                                                     |
|                            |   | Solid conductor; push-in termination                       | 6 ... 16 mm² / 14 ... 6 AWG                                                                                                       |
|                            |   | Fine-stranded conductor                                    | 0.5 ... 25 mm² / 20 ... 4 AWG                                                                                                     |
|                            |   | Fine-stranded conductor; with insulated ferrule            | 0.5 ... 16 mm² / 20 ... 6 AWG                                                                                                     |
|                            |   | Fine-stranded conductor; with ferrule; push-in termination | 6 ... 16 mm² / 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. |
|                            |   | 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                       | gray                                                                     |
| Material group              | I                                                                        |
| Insulation material         | Polyamide (PA66)                                                         |
| Flammability class per UL94 | V0                                                                       |
| Fire load                   | 0.382 MJ                                                                 |
| Weight                      | 22.6 g                                                                   |

### Environmental requirements

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

### Commercial data

|                       |               |
|-----------------------|---------------|
| Product Group         | 22 (TOPJOB S) |
| 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)              | 20 pcs        |
| Packaging type        | Box           |
| Country of origin     | DE            |
| GTIN                  | 4017332076494 |
| Customs tariff number | 85369010000   |

### Environmental Product Compliance

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

### Approvals / Certificates

#### General approvals



| Approval                              | Standard      | Certificate Name |
|---------------------------------------|---------------|------------------|
| 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 |
|------------------------------------------------------|----------|------------------|
| ATEX-Attestation of Conformity<br>WAGO GmbH & Co. KG | -        | -                |
| 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               | -        | 20-HG1941090-PDA |
| DNV GL<br>Det Norske Veritas, Germanischer Lloyd | -        | TAE00001V2       |

#### 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)                          |
| ATEX<br>Physikalisch Technische Bundesanstalt (PTB)                            | EN 60079       | PTB 05 ATEX 1031 U (II 2 G Ex eb IIC Gb bzw. I M2 Ex eb I Mb) |
| CCC<br>CQST/CNEx                                                               | GB/T 3836.3    | 2020312313000162 (Ex eb IIC Gb, Ex eb I Mb)                   |
| EAC<br>Brjansker Zertifizierungsstelle                                         | TP TC 012/2011 | RU C-DE.AM02. B.00127/19 (Ex e IIC Gb U)                      |
| IECEx<br>Physikalisch Technische Bundesanstalt (PTB)                           | IEC 60079      | IECEx PTB 05.0015 U (Ex eb IIC Gb and Ex eb I Mb)             |



| Approvals for hazardous areas               |           |               |
|---------------------------------------------|-----------|---------------|
| INMETRO<br>TÜV Rheinland do Brasil<br>Ltda. | IEC 60079 | TÜV 12.1313 U |

| Downloads                                  |                   |
|--------------------------------------------|-------------------|
| Environmental Product Compliance           |                   |
| Compliance Search                          |                   |
| Environmental Product Compliance 2016-1201 | <a href="#">↓</a> |

| Documentation          |                   |            |                   |
|------------------------|-------------------|------------|-------------------|
| Additional Information |                   | Bid Text   |                   |
| Technical Section      | pdf<br>2240.62 KB | 2016-1201  | <a href="#">↓</a> |
|                        |                   | 17.04.2019 | xml<br>4.17 KB    |
|                        |                   | 2016-1201  | <a href="#">↓</a> |
|                        |                   | 15.04.2019 | docx<br>14.93 KB  |

| CAD/CAE-Data              |                                |
|---------------------------|--------------------------------|
| CAD data                  | CAE data                       |
| 2D/3D Models<br>2016-1201 | EPLAN Data Portal<br>2016-1201 |
| <a href="#">↓</a>         | <a href="#">↓</a>              |
|                           | WSCAD Universe<br>2016-1201    |
|                           | <a href="#">↓</a>              |
|                           | ZUKEN Portal<br>2016-1201      |
|                           | <a href="#">↓</a>              |

| 1 Compatible Products    |
|--------------------------|
| 1.1 Required Accessories |
| 1.1.1 End plate          |
| 1.1.1.1 End plate        |



|                                                                                     |                                                                                       |                                                                                                            |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <a href="#">Item No.: 2016-1291</a><br>End and intermediate plate; 1 mm thick; gray | <a href="#">Item No.: 2016-1292</a><br>End and intermediate plate; 1 mm thick; orange | <a href="#">Item No.: 209-191</a><br>Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide; 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



#### 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.: 210-113

Steel carrier rail; 35 x 7.5 mm; 1 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.: 2016-433

Jumper; from 1 to 3; 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



#### Item No.: 2016-403

Jumper; 3-way; insulated; light gray



#### Item No.: 2016-434

Jumper; from 1 to 4; insulated; light gray



#### Item No.: 285-430

Step-down jumper; from 285 (35mm<sup>2</sup>) to 2016/2010 series; insulated; gray



#### Item No.: 2016-404

Jumper; 4-way; insulated; light gray



#### Item No.: 2016-435

Jumper; from 1 to 5; insulated; light gray



#### Item No.: 2016-405

Jumper; 5-way; insulated; light gray



#### Item No.: 2016-405/011-000

Star point jumper; 3-way; 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.: 2009-145/000-005

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



#### Item No.: 248-501/000-006

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



#### Item No.: 248-501/000-012

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



#### 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.: 2009-145/000-024

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



#### Item No.: 248-501/000-007

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



#### Item No.: 248-501/000-005

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



#### 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

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



#### Item No.: 248-501/000-023

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



#### Item No.: 248-501/000-024

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



#### 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.: 2009-145/000-002

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



#### Item No.: 248-501/000-017

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



#### Item No.: 248-501

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

## 1.2.6.2 Marker

**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

**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; 4,00 mm²; 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 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray

1.2.10 Tool

1.2.10.1 Operating tool



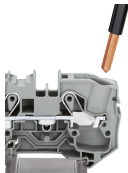
**Item No.: 210-721**  
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

Installation Notes

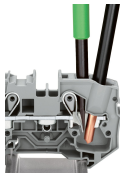
Conductor termination



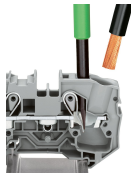
**All conductor types at a glance**



**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.

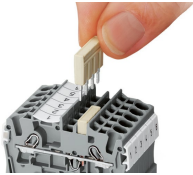


**Removing a solid conductor.**  
Conductor removal is performed with an operating tool, just like CAGE CLAMP®.

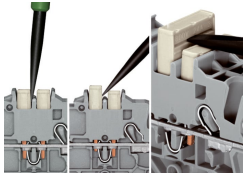


**Inserting a conductor via operating tool.**  
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.  
**The smart feature:**  
To open the clamp, the operating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

Commoning

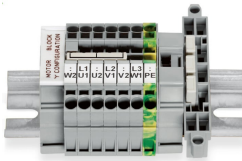


Insert push-in type jumper bar and push down until it hits backstop.



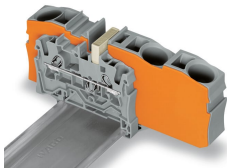
**Removing a push-in type jumper bar:**  
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper. Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five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

Commoning

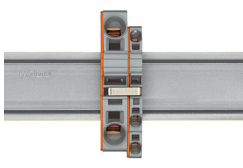


This star point jumper has been specially developed to create a “star point” and is used on motor terminal boards equipped with Rail-Mount Terminal Blocks TOPJOB® S.

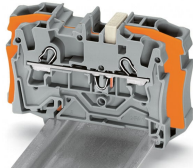
Commoning



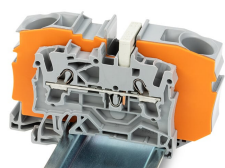
Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point. Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using push-in type jumper bars.



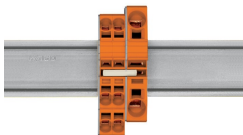
**Using step-down jumpers,** an end plate must be inserted between the terminal blocks to be commoned.



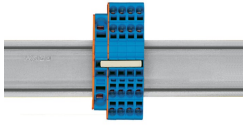
**Step-down jumper (2006-499)** commons 6/4 mm<sup>2</sup> (10/12 AWG) terminal blocks (2006/2004 Series) with 4/2.5/1.5 mm<sup>2</sup> (AWG 12/14/16) terminal blocks (2004/2002/2001 Series).



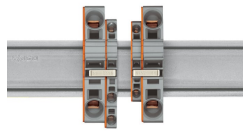
**Step-down jumper (2016-499)** commons 16/10 mm<sup>2</sup> (16/8 AWG) terminal blocks (2016/2010 Series) with 10/6/4/2.5 mm<sup>2</sup> (8/10/12/14 AWG) terminal blocks (2010/2006/2004/2002 Series).



**Stepping down via push-in type jumper bar:**  
Commoning via open terminal side with end plate allows jumpering over two cross-section sizes for 16 mm<sup>2</sup> (6 AWG) and 10 mm<sup>2</sup> (8 AWG) and one cross-section size for 6/4/2.5 mm<sup>2</sup> (10/12/14 AWG). An example: from 16 mm<sup>2</sup> (6 AWG) to 6 mm<sup>2</sup> (10 AWG) (see illustration above) or from 10 mm<sup>2</sup> (8 AWG) to 4 mm<sup>2</sup> (12 AWG).

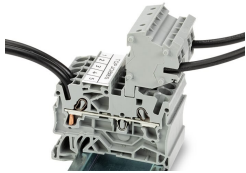


**Stepping down via push-in type jumper bar:**  
Commoning via closed terminal side with end plate allows jumpering over two cross-section sizes, e.g., from 16 mm<sup>2</sup> (6 AWG) to 6 mm<sup>2</sup> (10 AWG) or from 6 mm<sup>2</sup> (10 AWG) to 2.5 mm<sup>2</sup> (14 AWG) (see illustration above).



**Note:**  
The total current of the outgoing circuits must not exceed the nominal current of the step-down jumper/push-in type jumper bar.

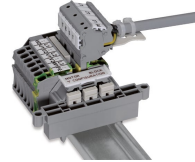
## Testing



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

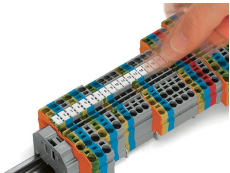


Test plug adapter (2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series

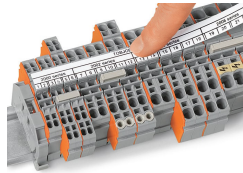


Testing tap (2009-182) for tool-free connection of test cables up to 2.5 mm² (12 AWG) – compatible with 2000 to 2016 Series

## Marking



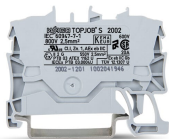
Snapping WMB Inline markers into marker slots.



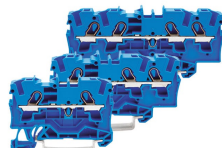
TOPJOB® S 2009-193 Group Marker Carrier (equipped with a marking strip) for all 2001 to 2016 Series TOPJOB® S Rail-Mount Terminal Blocks  
Do not use on an end plate!



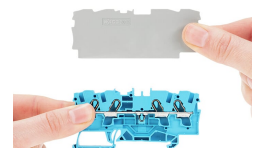
## Ex application



Through terminal blocks with a blue insulated housing are suitable for Ex i applications.



All through and ground conductor terminal blocks are suitable for Ex e II applications.



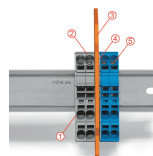
**Separator plate for Ex e/Ex i applications**  
An end plate must be applied to the terminal block located directly behind an Ex e/Ex i separator plate.



### Ex e II/Ex i terminal strip

#### Note:

The movable feet of terminal blocks and separator plates must face the same direction.



A separator plate is located between the Ex e II and Ex i terminal strip.

End plate  
Ex e II terminal blocks  
Separator plate for Ex e/Ex i applications  
End plate  
Ex i terminal blocks  
According to EN 50020, a minimum distance of 50 mm must be kept between live parts of Ex e and Ex i circuits. The use of Ex e/Ex i separators is a space-saving solution when Ex e and Ex i terminal blocks are mounted on a common DIN-rail.

