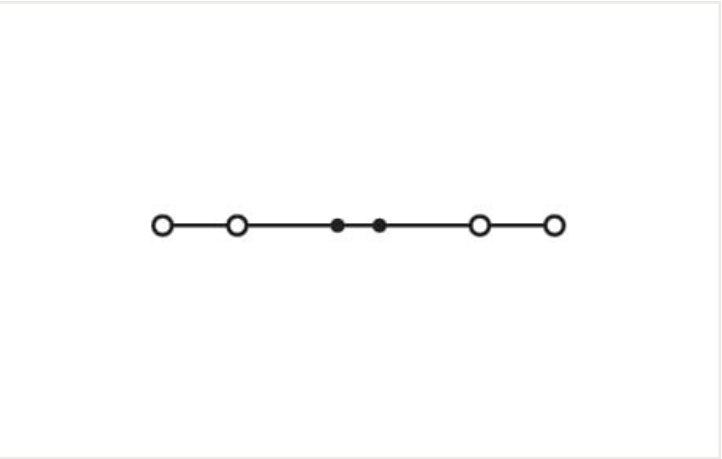
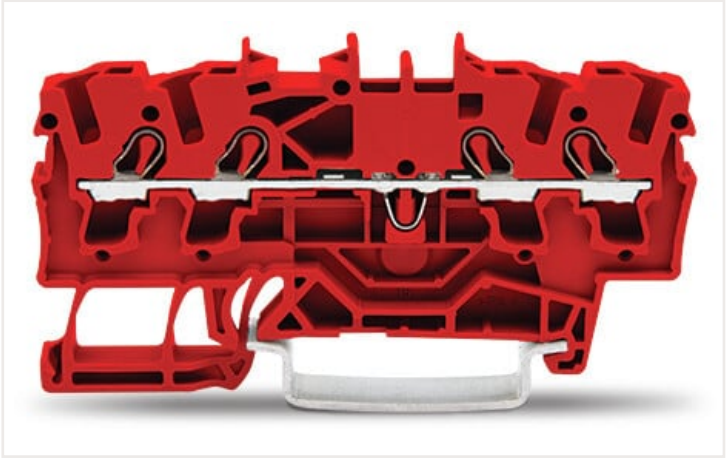
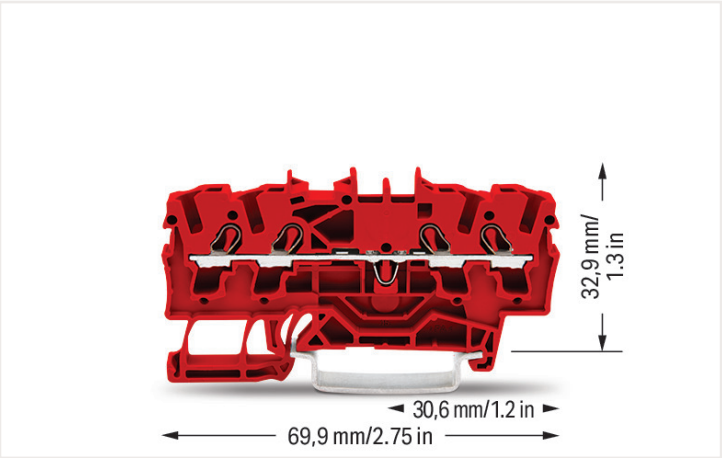


**Data sheet | Item number: 2002-1403**

4-conductor through terminal block; 2.5 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®; 2,50 mm²; red

<https://www.wago.com/2002-1403>



**Electrical data**

| Ratings per IEC/EN            |                                                                      |
|-------------------------------|----------------------------------------------------------------------|
| Ratings per                   | IEC/EN 60947-7-1                                                     |
| Nominal voltage (III/3)       | 800 V                                                                |
| Rated impulse voltage (III/3) | 8 kV                                                                 |
| Rated current                 | 24 A                                                                 |
| Legend (ratings)              | (III / 3) $\triangleq$ Overvoltage category III / Pollution degree 3 |

| Ratings per IEC/EN 2 |      |
|----------------------|------|
| Rated current 2      | 32 A |

| Ratings per UL                 |         |
|--------------------------------|---------|
| Approvals per                  | UL 1059 |
| Rated voltage UL (Use Group B) | 600 V   |
| Rated current UL (Use Group B) | 20 A    |
| Rated voltage UL (Use Group C) | 600 V   |
| Rated current UL (Use Group C) | 20 A    |

| Ratings per CSA                 |                 |
|---------------------------------|-----------------|
| Approvals per                   | CSA 22.2 No 158 |
| Rated voltage CSA (Use Group B) | 600 V           |
| Rated current CSA (Use Group B) | 20 A            |
| Rated voltage CSA (Use Group C) | 600 V           |
| Rated current CSA (Use Group C) | 20 A            |



| Ex information                      |                                                                                                                                                 |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Reference hazardous areas           | See installation notes in section “Knowledge” and Downloads – Documentation – Additional Information: Technical Section; Technical explanations |
| Ratings per                         | ATEX: PTB 03 ATEX 1162 U / IECEx: PTB 03.0004U (Ex eb IIC Gb)                                                                                   |
| Rated voltage EN (Ex e II)          | 550 V                                                                                                                                           |
| Rated current (Ex e II)             | 22 A                                                                                                                                            |
| Rated current (Ex e II) with jumper | 20 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 | 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                                      | 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                                                                                                                |

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

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

| Material data               |                                                                |
|-----------------------------|----------------------------------------------------------------|
| Note (material data)        | <a href="#">Information on material data can be found here</a> |
| Color                       | red                                                            |
| Material group              | I                                                              |
| Insulation material         | Polyamide (PA66)                                               |
| Flammability class per UL94 | V0                                                             |
| Fire load                   | 0.122 MJ                                                       |
| Weight                      | 7.5 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)                            | 100 Stück       |
| Packaging type                      | Box             |
| Country of origin VKOrg Germany     | DE              |
| GTIN                                | 4044918081559   |
| Customs tariff number VKOrg Germany | 85369010000     |

Approvals and certificates

| General approvals                    |               | Declarations of conformity and manufacturer's declarations                                                                                                              |          |          |                  |                               |   |               |
|--------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|------------------|-------------------------------|---|---------------|
|                                      |               |                                                                                                                                                                         |          |          |                  |                               |   |               |
| Approval                             | Standard      | Certificate name                                                                                                                                                        |          |          |                  |                               |   |               |
| CCA<br>DEKRA Certification B.V.      | EN 60947      | 71-120369                                                                                                                                                               |          |          |                  |                               |   |               |
| CCA<br>DEKRA Certification B.V.      | EN 60947      | NTR NL 7892                                                                                                                                                             |          |          |                  |                               |   |               |
| CSA<br>DEKRA Certification B.V.      | C22.2 No. 158 | 1536069                                                                                                                                                                 |          |          |                  |                               |   |               |
| UL<br>Underwriters Laboratories Inc. | UL 1059       | E45172                                                                                                                                                                  |          |          |                  |                               |   |               |
|                                      |               | <table><tr><th>Approval</th><th>Standard</th><th>Certificate name</th></tr><tr><td>Railway<br/>WAGO GmbH &amp; Co. KG</td><td>-</td><td>Railway Ready</td></tr></table> | Approval | Standard | Certificate name | Railway<br>WAGO GmbH & Co. KG | - | Railway Ready |
| Approval                             | Standard      | Certificate name                                                                                                                                                        |          |          |                  |                               |   |               |
| Railway<br>WAGO GmbH & Co. KG        | -             | Railway Ready                                                                                                                                                           |          |          |                  |                               |   |               |

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       |

Approvals for hazardous areas

| Approval                                               | Standard       | Certificate name                                            |
|--------------------------------------------------------|----------------|-------------------------------------------------------------|
| AEx<br>Underwriters Laboratories<br>Inc.               | UL 60079       | E185892 (AEx eb IIC resp.<br>Ex eb IIC)                     |
| ATEX<br>Physikalisch Technische<br>Bundesanstalt (PTB) | EN 60079       | PTB 03 ATEX 1162 U (II2G<br>Ex eb IIC Gb, IM2 Ex eb<br>IMb) |
| CCC<br>CNEX                                            | GB/T 3836.3    | 2020312313000238 (Ex<br>eb IIC Gb, Ex eb I Mb)              |
| EAC<br>Brjansker Zertifizierungs-<br>stelle            | TP TC 012/2011 | RU C-DE.AM02.<br>B.00127/19 (Ex e IIC Gb U)                 |
| IECEx<br>Physikalisch Technische<br>Bundesanstalt      | IEC 60079      | IECEx PTB 03.0004U (Ex<br>eb IIC Gb or Ex eb I Mb)          |



Downloads

Environmental Product Compliance

|                                                                                   |
|-----------------------------------------------------------------------------------|
| Compliance Search                                                                 |
| Environmental Product Compliance 2002-1403                                        |
|  |

Documentation

|                                                                                   |
|-----------------------------------------------------------------------------------|
| Additional Information                                                            |
| Technical Section                                                                 |
| pdf                                                                               |
| 2142.18 KB                                                                        |
|  |

|                                                                                     |
|-------------------------------------------------------------------------------------|
| Bid Text                                                                            |
| 2002-1403                                                                           |
| 29.04.2019                                                                          |
| xml                                                                                 |
| 4.14 KB                                                                             |
|  |
| 2002-1403                                                                           |
| 23.04.2019                                                                          |
| docx                                                                                |
| 14.76 KB                                                                            |
|  |

CAD/CAE-Data

|                                                                                   |
|-----------------------------------------------------------------------------------|
| CAD data                                                                          |
| 2D/3D Models                                                                      |
| 2002-1403                                                                         |
|  |

|                                                                                       |
|---------------------------------------------------------------------------------------|
| CAE data                                                                              |
| EPLAN Data Portal                                                                     |
| 2002-1403                                                                             |
|    |
| WSCAD Universe                                                                        |
| 2002-1403                                                                             |
|    |
| ZUKEN Portal                                                                          |
| 2002-1403                                                                             |
|  |

1 Compatible products

1.1 Required accessories

1.1.1 End plate

1.1.1.1 End plate



[Item no.: 2002-1491](#)  
End and intermediate plate; 0.8 mm thick; gray



[Item no.: 2002-1492](#)  
End and intermediate plate; 0.8 mm thick; orange



[Item no.: 209-191](#)  
Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide; orange



[Item no.: 2002-1493](#)  
Seperator plate; 2 mm thick; oversized; gray



[Item no.: 2002-1494](#)  
Seperator plate; 2 mm thick; oversized; orange

## 1.2 Optional accessories

### 1.2.1 DIN-rail

#### 1.2.1.1 Mounting accessories



**Item no.: 210-196**

Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored



**Item no.: 210-198**

Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; copper-colored



**Item no.: 210-508**

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



**Item no.: 210-506**

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



**Item no.: 210-118**

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored



**Item no.: 210-115**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; 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; slopped; 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; slopped; 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; unslopped; according to EN 60715; silver-colored



**Item no.: 210-505**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslopped; galvanized; according to EN 60715; silver-colored

### 1.2.2 Ferrule

#### 1.2.2.1 Ferrule



**Item no.: 216-241**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 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.: 216-264**

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.: 216-246**

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.: 216-266**

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

### 1.2.3 Installation

#### 1.2.3.1 Mounting accessories



**Item no.: 709-169**

Cover carrier; Type 3; gray



**Item no.: 709-156**

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

## 1.2.4 Insulation stop

## 1.2.4.1 Insulation stop

**Item no.: 2002-171**

Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray

**Item no.: 2002-172**

Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; dark gray

## 1.2.5 Jumper

## 1.2.5.1 Jumper

**Item no.: 2002-400**

Continuous jumper; 2-way; insulated; light gray

**Item no.: 2002-423/000-006**

Continuous jumper; from 1 to 3; insulated; blue

**Item no.: 2002-423**

Continuous jumper; from 1 to 3; insulated; light gray

**Item no.: 2002-423/000-005**

Continuous jumper; from 1 to 3; insulated; red

**Item no.: 2002-406/020-000**

Delta jumper; insulated; light gray

**Item no.: 2002-410/000-006**

Jumper; 10-way; insulated; blue

**Item no.: 2002-410**

Jumper; 10-way; insulated; light gray

**Item no.: 2002-410/000-005**

Jumper; 10-way; insulated; red

**Item no.: 2002-402/000-006**

Jumper; 2-way; insulated; blue

**Item no.: 2002-402**

Jumper; 2-way; insulated; light gray

**Item no.: 2002-402/000-005**

Jumper; 2-way; insulated; red

**Item no.: 2002-403/000-006**

Jumper; 3-way; insulated; blue

**Item no.: 2002-403**

Jumper; 3-way; insulated; light gray

**Item no.: 2002-403/000-005**

Jumper; 3-way; insulated; red

**Item no.: 2002-404/000-006**

Jumper; 4-way; insulated; blue

**Item no.: 2002-404**

Jumper; 4-way; insulated; light gray

**Item no.: 2002-404/000-005**

Jumper; 4-way; insulated; red

**Item no.: 2002-405/000-006**

Jumper; 5-way; insulated; blue

**Item no.: 2002-405**

Jumper; 5-way; insulated; light gray

**Item no.: 2002-405/000-005**

Jumper; 5-way; insulated; red

**Item no.: 2002-406/000-006**

Jumper; 6-way; insulated; blue

**Item no.: 2002-406**

Jumper; 6-way; insulated; light gray

**Item no.: 2002-406/000-005**

Jumper; 6-way; insulated; red

**Item no.: 2002-407/000-006**

Jumper; 7-way; insulated; blue

**Item no.: 2002-407**

Jumper; 7-way; insulated; light gray

**Item no.: 2002-407/000-005**

Jumper; 7-way; insulated; red

**Item no.: 2002-408/000-006**

Jumper; 8-way; insulated; blue

**Item no.: 2002-408**

Jumper; 8-way; insulated; light gray

**Item no.: 2002-408/000-005**

Jumper; 8-way; insulated; red

**Item no.: 2002-409/000-006**

Jumper; 9-way; insulated; blue

**Item no.: 2002-409**

Jumper; 9-way; insulated; light gray

**Item no.: 2002-409/000-005**

Jumper; 9-way; insulated; red

**Item no.: 2002-440**

Jumper; from 1 to 10; insulated; light gray

**Item no.: 2002-433**

Jumper; from 1 to 3; insulated; light gray

**Item no.: 2002-434**

Jumper; from 1 to 4; insulated; light gray

**Item no.: 2002-435**

Jumper; from 1 to 5; insulated; light gray

**Item no.: 2002-436**

Jumper; from 1 to 6; insulated; light gray

**Item no.: 2002-437**

Jumper; from 1 to 7; insulated; light gray

**Item no.: 2002-438**

Jumper; from 1 to 8; insulated; light gray

**Item no.: 2002-439**

Jumper; from 1 to 9; insulated; light gray

**Item no.: 2002-480**

Staggered jumper; 10-way; insulated; light gray

**Item no.: 2002-481**

Staggered jumper; 11-way; insulated; light gray

**Item no.: 2002-482**

Staggered jumper; 12-way; insulated; light gray

**Item no.: 2002-473/011-000**

Staggered jumper; 2-way; from 1 to 3; insulated; light gray

**Item no.: 2002-472**

Staggered jumper; 2-way; insulated; light gray

**Item no.: 2002-473**

Staggered jumper; 3-way; insulated; light gray

**Item no.: 2002-475/011-000**

Staggered jumper; 3-way; insulated; light gray

**Item no.: 2002-474**

Staggered jumper; 4-way; insulated; light gray

## 1.2.5.1 Jumper

**Item no.: 2002-475**

Staggered jumper; 5-way; insulated; light gray

**Item no.: 2002-476**

Staggered jumper; 6-way; insulated; light gray

**Item no.: 2002-477**

Staggered jumper; 7-way; insulated; light gray

**Item no.: 2002-478**

Staggered jumper; 8-way; insulated; light gray

**Item no.: 2002-479**

Staggered jumper; 9-way; insulated; light gray

**Item no.: 2002-477/011-000**

Staggered jumper; insulated; light gray

**Item no.: 2002-479/011-000**

Staggered jumper; insulated; light gray

**Item no.: 2002-481/011-000**

Staggered jumper; insulated; light gray

**Item no.: 2002-405/011-000**

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

**Item no.: 2006-499**

Step-down jumper; from 2006/2004 to 2004/2002/2001 series; insulated; light gray

**Item no.: 2016-499**

Step-down jumper; from 2016/2010 to 2010/2006/2004/2002 series; insulated; light gray

**Item no.: 210-103**

Wire commoning chain; insulated; black

**Item no.: 210-123**

Wire commoning chain; insulated; blue

## 1.2.6 Marking

## 1.2.6.1 Group marker carrier

**Item no.: 2009-191**

Group marker carrier; gray

**Item no.: 2009-192**

Group marker carrier; gray

**Item no.: 2009-193**

Group marker carrier; gray

## 1.2.6.2 Marker

**Item no.: 2009-145/000-006**

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

**Item no.: 2009-145/000-007**

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

**Item no.: 2009-145/000-023**

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

**Item no.: 2009-145/000-012**

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

**Item no.: 2009-145/000-005**

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

**Item no.: 2009-145/000-024**

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

**Item no.: 2009-145**

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

**Item no.: 2009-145/000-002**

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

**Item no.: 248-501/000-006**

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

**Item no.: 248-501/000-007**

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

**Item no.: 248-501/000-023**

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

**Item no.: 248-501/000-017**

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

**Item no.: 248-501/000-012**

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

**Item no.: 248-501/000-005**

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

**Item no.: 248-501/000-024**

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

**Item no.: 248-501**

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

**Item no.: 248-501/000-002**

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

**Item no.: 793-5501/000-006**

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue

**Item no.: 793-5501/000-014**

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown

**Item no.: 793-5501/000-007**

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray

**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



1.2.6.2 Marker



**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.: 2009-115/000-005**  
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

1.2.6.3 Marker carrier



**Item no.: 2002-161**  
Adaptor; gray



**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 Plug

1.2.7.1 Diode plug



**Item no.: 2002-880/1000-411**  
Component plug; 2-pole; with diode 1N4007; 10.4 mm wide; Operating temperature 85°C max.; gray



### 1.2.7.2 Empty component plug housing



**Item no.: 2002-880**

Empty component plug housing; 10.4 mm wide; 2-pole; Type 4; gray

### 1.2.7.3 LED plug



**Item no.: 2002-880/1000-541**

Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85°C max.; gray



**Item no.: 2002-880/1000-836**

Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85°C max.; gray



**Item no.: 2002-880/1000-542**

Component plug; 2-pole; LED (red); 10.4 mm wide; Operating temperature 85°C max.; multicoloured

### 1.2.8 Protective warning marker

#### 1.2.8.1 Cover



**Item no.: 2002-115**

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

### 1.2.9 Push-in type wire jumper

#### 1.2.9.1 Jumper



**Item no.: 2009-414**

Push-in type wire jumper; 1.5 mm<sup>2</sup>; insulated; 110 mm long; black



**Item no.: 2009-414/000-005**

Push-in type wire jumper; 1.5 mm<sup>2</sup>; insulated; 110 mm long; black



**Item no.: 2009-416**

Push-in type wire jumper; 1.5 mm<sup>2</sup>; insulated; 250 mm long; black



**Item no.: 2009-414/000-006**

Push-in type wire jumper; insulated; 110 mm long; black



**Item no.: 2009-412**

Push-in type wire jumper; insulated; 60 mm long; black

### 1.2.10 Test and measurement

#### 1.2.10.1 Testing accessories



**Item no.: 2002-560**

Modular TOPJOB®S connector; modular; for jumper contact slot; 10-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-511**

Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-552**

Modular TOPJOB®S connector; modular; for jumper contact slot; 2-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-553**

Modular TOPJOB®S connector; modular; for jumper contact slot; 3-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-554**

Modular TOPJOB®S connector; modular; for jumper contact slot; 4-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-555**

Modular TOPJOB®S connector; modular; for jumper contact slot; 5-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-556**

Modular TOPJOB®S connector; modular; for jumper contact slot; 6-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-557**

Modular TOPJOB®S connector; modular; for jumper contact slot; 7-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-558**

Modular TOPJOB®S connector; modular; for jumper contact slot; 8-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-559**

Modular TOPJOB®S connector; modular; for jumper contact slot; 9-pole; 2,50 mm<sup>2</sup>; gray



**Item no.: 2002-549**

Spacer module; modular; e.g., for bridging commoned terminal blocks; gray



**Item no.: 2009-174**

Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray

1.2.10.1 Testing accessories



**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



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



**Item no.: 2002-611**  
TOPJOB®S L-type test plug module; modular; 1-pole; 2,50 mm<sup>2</sup>; gray

1.2.11 Tool

1.2.11.1 Operating tool



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



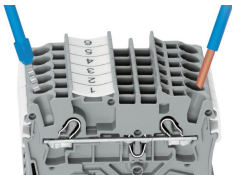
**Item no.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation notes

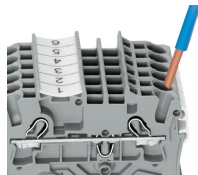
Conductor termination



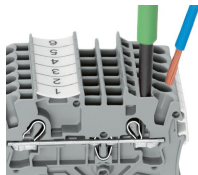
All conductor types at a glance



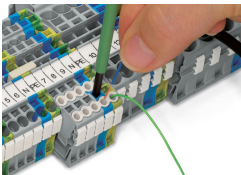
Push-in termination of solid and ferruled conductors



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

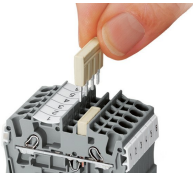


Inserting a conductor via operating tool:  
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.  
Advantage:  
To open the clamp, the operating tool is inserted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

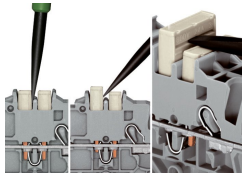


Conductor termination – insulation stop

Commoning

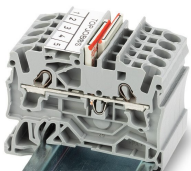


Insert push-in type jumper bar and push down until it hits backstop.

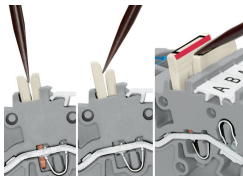


Removing a push-in type jumper bar:  
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.  
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five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

Commoning



Orient the staggered jumpers' red stripes on the inside.  
Insert the staggered jumper and push down until it hits the backstop.

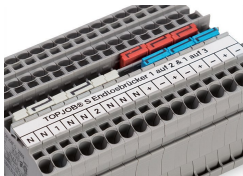


Removing a staggered jumper:  
Insert the operating tool between the staggered jumpers, then lift up the jumper.

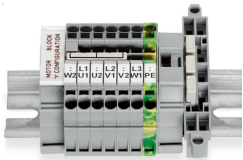
Commoning



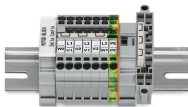
Continuous jumpers (2002 Series) readily connect an endless number of terminal blocks to each other via single jumper slot. Use the second jumper slot for additional commoning or testing.



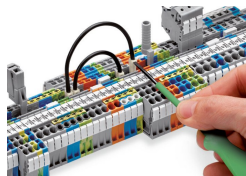
The 1-to-3 adjacent jumper for continuous commoning enables every other terminal block to be commoned. For example, positive and negative potentials can be accommodated alongside each other.



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

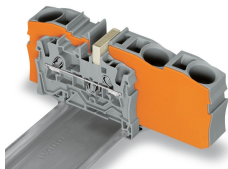


This delta jumper has been specially developed to create a delta configuration and is used on motor terminal boards equipped with rail-mount terminal blocks TOPJOB® S.

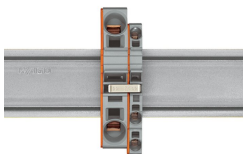


Push down the wire jumper until fully inserted. Lift the jumper with an operating tool for rewiring.

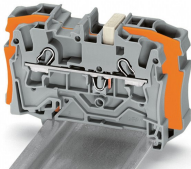
Commoning



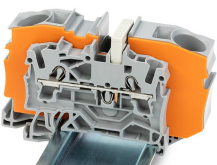
Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.  
Commoning may be made 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.

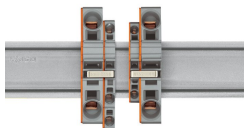
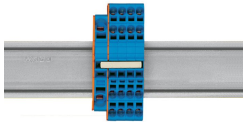
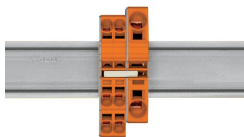


Step-down jumper (2006-499) commons 6/4 mm² (10/12 AWG) terminal blocks (2006/2004 Series) with 4/2.5/1.5 mm² (AWG 12/14/16) terminal blocks (2004/2002/2001 Series).



Step-down jumper (2016-499) commons 16/10 mm² (16/8 AWG) terminal blocks (2016/2010 Series) with 10/6/4/2.5 mm² (8/10/12/14 AWG) terminal blocks (2010/2006/2004/2002 Series).

Commoning

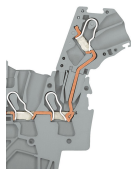
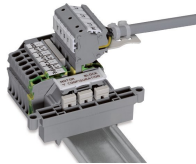
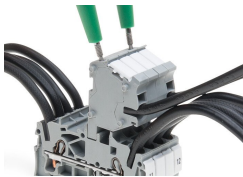
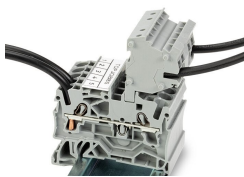


Stepping down via push-in type jumper bar:  
Commoning via open terminal side with end plate allows jumpering over two cross-section sizes for 16 mm<sup>2</sup> (6 AWG) and 10 mm<sup>2</sup> (8 AWG) and one cross-section size for 6/4/2.5 mm<sup>2</sup> (10/12/14 AWG). An example: from 16 mm<sup>2</sup>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

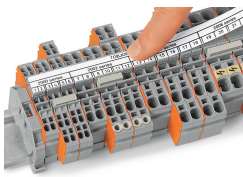
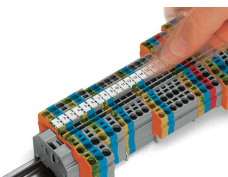
L-type test plug module – cross-sectional view of contacts



Test plug adapter (2009-174, CAT II) 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 mm<sup>2</sup> (12 AWG) – compatible with 2000 to 2016 Series

Marking

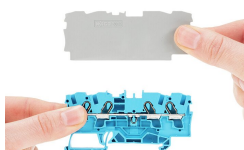
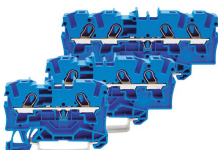
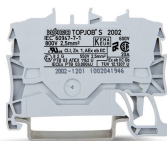


Snapping WMB Inline markers into marker slots.

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!

Using marker carriers for marking strips (2002-161) in jumper slots.

Ex application

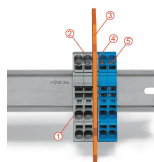


Through terminal blocks with a blue insulated housing are suitable for Ex i applications.

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 application



## 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.