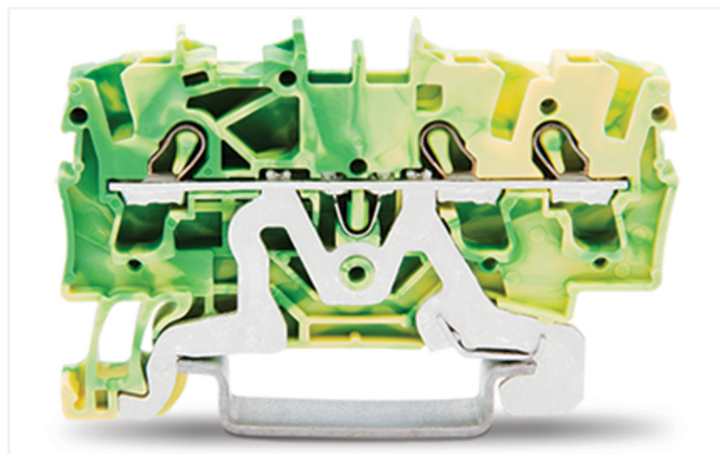
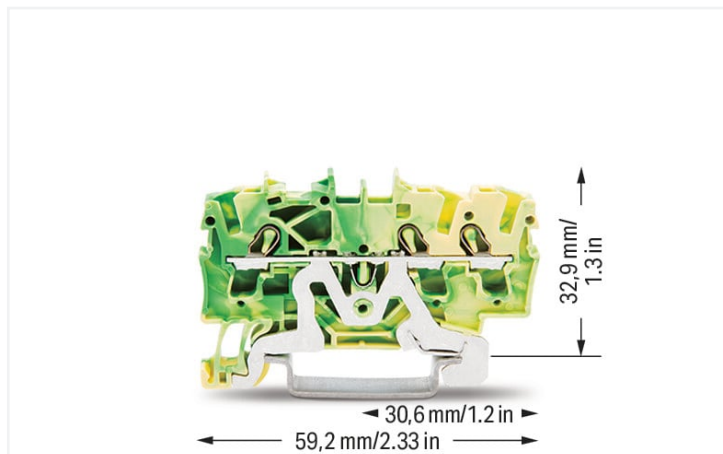


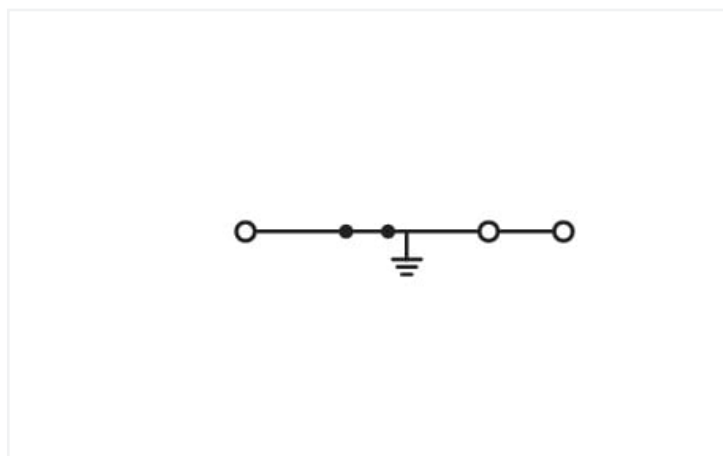
Data Sheet | Item Number: 2002-1307

3-conductor ground 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; green-yellow

<https://www.wago.com/2002-1307>



Color: ■ green-yellow



Similar to illustration

Electrical data

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

Ex information

| | |
|---------------------------|---|
| Reference hazardous areas | See "Downloads – Documentation – Additional Information: Technical Section; Technical Explanations" |
|---------------------------|---|

Connection data

| | |
|----------------------------|---|
| Clamping units | 3 |
| 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 | 2.5 mm ² |
| Solid conductor | 0.25 ... 4 mm ² / 22 ... 12 AWG |
| Solid conductor; push-in termination | 0.75 ... 4 mm ² / 18 ... 12 AWG |
| Fine-stranded conductor | 0.25 ... 4 mm ² / 22 ... 12 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 ... 2.5 mm ² / 22 ... 14 AWG |

Connection 1

| | |
|--|---|
| Fine-stranded conductor; with ferrule; push-in termination | 1 ... 2.5 mm ² / 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 | 59.2 mm / 2.33 inches |
| Depth from upper-edge of DIN-rail | 32.9 mm / 1.295 inches |

Mechanical data

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

Material data

| | |
|------------------------------------|--|
| Note (material data) | Information on material specifications can be found here |
| Color | green-yellow |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.124 MJ |
| Weight | 9.1 g |

Environmental requirements

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

Environmental Testing (Environmental Conditions)

| | |
|--|---|
| Test specification Railway applications – Rolling stock – Electronic equipment | DIN EN 50155 (VDE 0115-200):2022-06 |
| Test procedure Railway applications – Rolling stock equipment – Shock and vibration tests | DIN EN 61373 (VDE 0115-0106):2011-04 |
| Spectrum/Installation location | Service life test, Category 1, Class A/B |
| Function test with noise-like vibration | Test passed according to Section 8 of the standard |
| Frequency | f ₁ = 5 Hz to f ₂ = 150 Hz f ₁ = 5 Hz to f ₂ = 150 Hz |
| Acceleration | 0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes) |
| Test duration per axis | 10 min. 5 h |
| Test directions | X, Y and Z axes X, Y and Z axes X, Y and Z axes |
| Monitoring for contact faults/interruptions | Passed |
| Voltage drop measurement before and after each axis | Passed |

Environmental Testing (Environmental Conditions)

| | |
|--|---|
| Simulated service life test through increased levels of noise-like vibration | Test passed according to Section 9 of the standard |
| Extended test scope: Monitoring for contact faults/interruptions | Passed Passed |
| Extended test scope: Voltage drop measurement before and after each axis | Passed Passed |
| Shock test | Test passed according to Section 10 of the standard |
| Shock form | Half sine |
| Shock duration | 30 ms |
| Number of shocks per axis | 3 pos. und 3 neg. |
| Vibration and shock stress for rolling stock equipment | Passed |

Commercial data

| | |
|-----------------------|---------------|
| Product Group | 22 (TOPJOB S) |
| eCl@ss 10.0 | 27-14-11-41 |
| eCl@ss 9.0 | 27-14-11-41 |
| ETIM 9.0 | EC000901 |
| ETIM 8.0 | EC000901 |
| PU (SPU) | 100 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4017332999274 |
| Customs tariff number | 85369010000 |

Environmental Product Compliance

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

Approvals / Certificates

General approvals



| Approval | Standard | Certificate Name |
|---------------------------------------|---------------|------------------|
| CCA DEKRA Certification B.V. | EN 60947 | NTR NL 7941 |
| CSA DEKRA Certification B.V. | C22.2 No. 158 | 1536069 |
| KEMA/KEUR DEKRA Certification B.V. | EN 60947 | 71-124163 |
| UL Underwriters Laboratories Inc. | UL 1059 | E45172 |

Declarations of conformity and manufacturer's declarations



| Approval | Standard | Certificate Name |
|--|----------|------------------|
| ATEX-Attestation of Conformity WAGO GmbH & Co. KG | - | - |
| EU-Declaration of Conformity WAGO GmbH & Co. KG | - | - |
| Railway WAGO GmbH & Co. KG | - | Railway Ready |
| UK-Declaration of Conformity WAGO GmbH & Co. KG | - | - |

Approvals for marine applications



| Approval | Standard | Certificate Name |
|--|----------|------------------|
| ABS American Bureau of Shipping | EN 60947 | 20-HG1941090-PDA |
| BV Bureau Veritas S.A. | EN 60947 | 38586/B0 BV |
| DNV GL Det Norske Veritas, Germanischer Lloyd | - | TAE00001V2 |

Approvals for hazardous areas



| Approval | Standard | Certificate Name |
|--|----------------|---|
| AEx Underwriters Laboratories Inc. | UL 60079 | E185892 (AEx eb IIC resp. Ex eb IIC) |
| ATEX Physikalisch Technische Bundesanstalt | EN 60079 | PTB 03 ATEX 1162 U (II2G Ex eb IIC Gb, IM2 Ex eb IMb) |
| CCC CNEX | GB/T 3836.3 | 2020312313000238 (Ex eb IIC Gb, Ex eb I Mb) |
| EAC Brjansker Zertifizierungsstelle | TP TC 012/2011 | RU C-DE.AM02. B.00127/19 (Ex e IIC Gb U) |
| IECEX Physikalisch Technische Bundesanstalt | IEC 60079 | IECEX PTB 03.0004U (Ex eb IIC Gb or Ex eb I Mb) |
| INMETRO TÜV Rheinland do Brasil Ltda. | IEC 60079 | TÜV 12.1307 U |

Downloads

Environmental Product Compliance

| Compliance Search |
|--|
| Environmental Product Compliance 2002-1307 ↓ |

Documentation

| Additional Information | | |
|------------------------|-------------------|-------------------|
| Technical Section | pdf 2246.92 KB | ↓ |

| Bid Text | | | |
|-----------|------------|------------------|-------------------|
| 2002-1307 | 29.04.2019 | xml 3.80 KB | ↓ |
| 2002-1307 | 23.04.2019 | docx 14.60 KB | ↓ |

CAD/CAE-Data

| CAD data |
|---|
| 2D/3D Models 2002-1307 ↓ |

| CAE data |
|--|
| EPLAN Data Portal 2002-1307 ↓ |
| WSCAD Universe 2002-1307 ↓ |
| ZUKEN Portal 2002-1307 ↓ |

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 2002-1391

End and intermediate plate; 0.8 mm thick; gray



Item No.: 2002-1392

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

1.2 Optional Accessories

1.2.1 DIN-rail

1.2.1.1 Mounting accessories



Item No.: 210-196

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



Item No.: 210-198

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



Item No.: 210-508

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



Item No.: 210-197

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



Item No.: 210-506

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



Item No.: 210-114

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



Item No.: 210-118

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



Item No.: 210-115

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored



Item No.: 210-112

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored



Item No.: 210-504

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



Item No.: 210-113

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



Item No.: 210-505

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

1.2.2 End plate

1.2.2.1 End plate



Item No.: 2002-1393

Separator plate; 2 mm thick; oversized; gray



Item No.: 2002-1394

Separator plate; 2 mm thick; oversized; orange

1.2.3 Ferrule

1.2.3.1 Ferrule



Item No.: 216-241

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



Item No.: 216-242

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item No.: 216-262

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item No.: 216-243

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

1.2.3.1 Ferrule



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

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

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

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



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

1.2.4 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 Insulation stop

1.2.5.1 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

1.2.6 Jumper

1.2.6.1 Jumper



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

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

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

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




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

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

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

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

1.2.6.1 Jumper

| | | | |
|---|--|--|---|
|  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 |  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.: 210-103 Wire commoning chain; insulated; black |  Item No.: 210-123 Wire commoning chain; insulated; blue | | |

1.2.7 Marking

1.2.7.1 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

1.2.7.2 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



Item No.: 793-5501/000-024

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

Item No.: 793-5501

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

Item No.: 793-5501/000-002

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

Item No.: 2009-115/000-006

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



Item No.: 2009-115/000-007

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 2009-115/000-023

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 2009-115/000-017

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green

Item No.: 2009-115/000-012

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



Item No.: 2009-115/000-005

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 2009-115/000-024

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 2009-115

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 2009-115/000-002

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.2.7.3 Marker carrier



Item No.: 2002-161

Adaptor; gray

Item No.: 2009-198

Adaptor; gray

1.2.7.4 Marking strip



Item No.: 2009-110

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

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 mm²; insulated; 110 mm long; black



Item No.: 2009-414/000-005

Push-in type wire jumper; 1.5 mm²; insulated; 110 mm long; black



Item No.: 2009-416

Push-in type wire jumper; 1.5 mm²; insulated; 250 mm long; black



Item No.: 2009-414/000-006

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



Item No.: 2009-412

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

1.2.10 Screwless end stop

1.2.10.1 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

1.2.11 Test and measurement

1.2.11.1 Testing accessories



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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

1.2.12 Tool

1.2.12.1 Operating tool



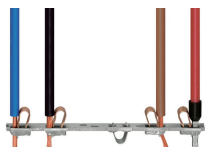
Item No.: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



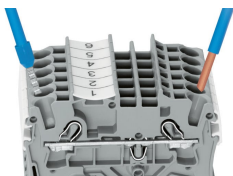
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

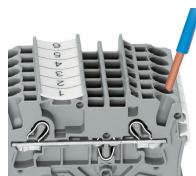
Conductor termination



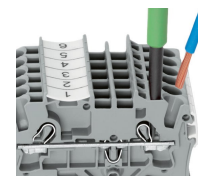
All conductor types at a glance



Push-in termination of solid and ferruled conductors

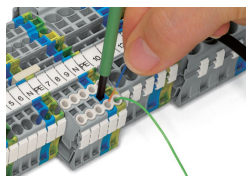


Inserting a conductor via push-in termination:
Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in – no tools needed.



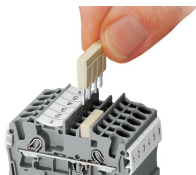
Inserting a conductor via operating tool:
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.
Advantage:
To open the clamp, the operating tool is inserted vertically.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

Conductor termination

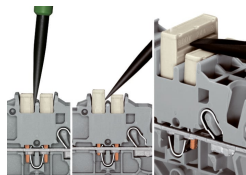


Conductor termination – insulation stop

Commoning

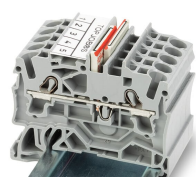


Insert push-in type jumper bar and push down until it hits backstop.

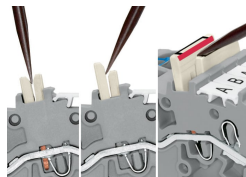


Removing a push-in type jumper bar: Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper. Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

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.

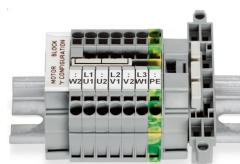
Commoning



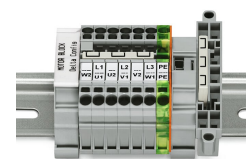
Continuous jumpers (2002 Series) readily connect an endless number of terminal blocks to each other via single jumper slot. Use the second jumper slot for additional commoning or testing.



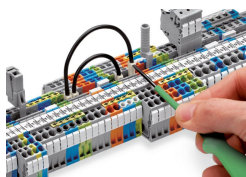
The 1-to-3 adjacent jumper for continuous commoning enables every other terminal block to be commoned. For example, positive and negative potentials can be accommodated alongside each other.



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 TOPJOB® S.

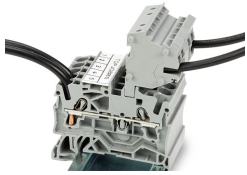


This delta jumper has been specially developed to create a delta configuration and is used on motor terminal boards equipped with rail-mount terminal blocks TOPJOB® S.

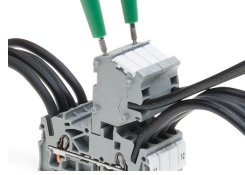


Push down the wire jumper until fully inserted. Lift the jumper with an operating tool for rewiring.

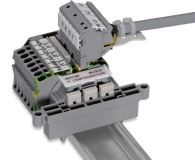
Testing



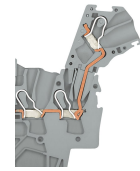
The modular TOPJOB® S connectors also connect conductors of the same size as the terminal blocks being used.



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



Rail-mount terminal block assembly for electric motor wiring



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

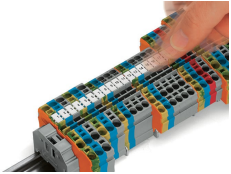


Test plug adapter (2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series

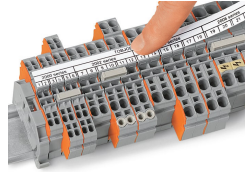


Testing tap (2009-182) for tool-free connection of test cables up to 2.5 mm² (12 AWG) – compatible with 2000 to 2016 Series

Marking



Snapping WMB Inline markers into marker slots.



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.