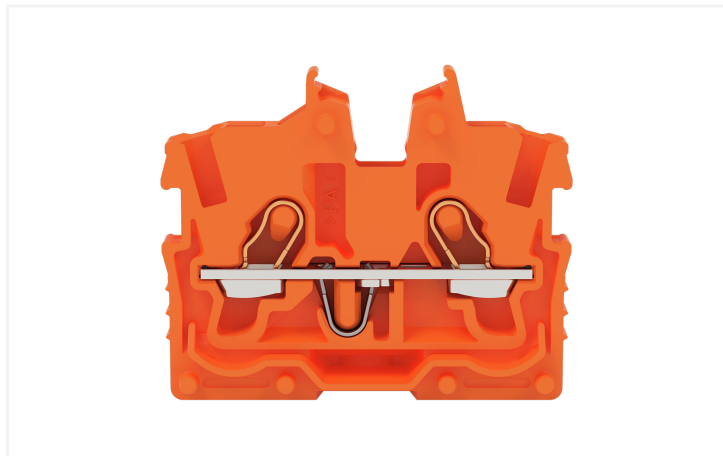


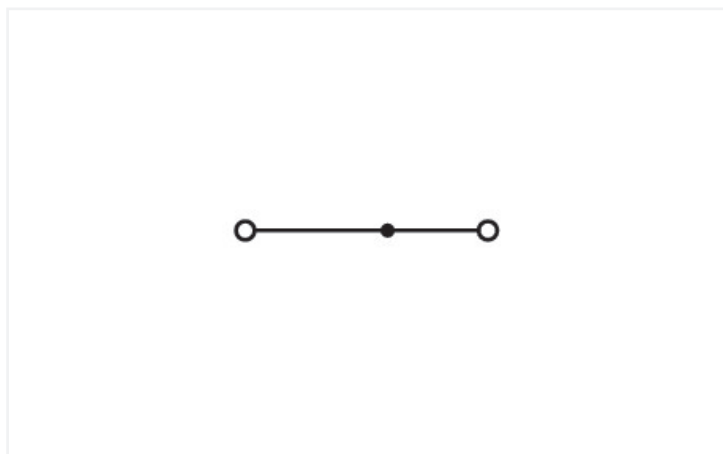
Data Sheet | Item Number: 2050-302

2-conductor miniature through terminal block; with operating slots; 1 mm²; End terminal block with mounting flange; side and center marking; with test port; Push-in CAGE CLAMP®; 1,00 mm²; orange

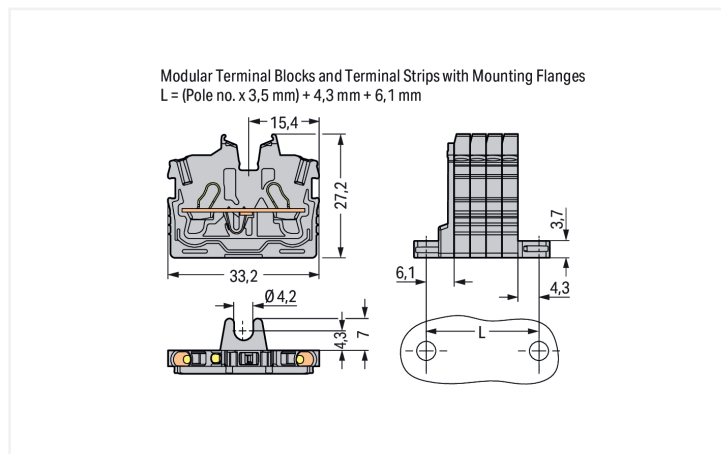
<https://www.wago.com/2050-302>



Color: ■ orange



Similar to illustration



Through terminal block, 2050 Series, orange

This through terminal block (item number 2050-302) is designed to connect conductors quickly and easily. Strip lengths must be between 9 and 11 mm when connecting conductors to this through terminal block. Whether in industrial or building applications, our rail-mount through terminal blocks are the perfect solution to quickly and securely connect electrical conductors. Depending on the version, you can use them for either typical through-wiring or potential distribution. Featuring conductor terminals along with Push-in CAGE CLAMP®, this product outperforms the competition. Push-in CAGE CLAMP® technology provides a universal connection solution for all conductor types. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. This through terminal block is suitable for conductor cross sections ranging from 0.14 mm² to 1.5 mm².

An operating tool is used to operate this mini rail-mount terminal block. Our TOPJOB® S rail-mount terminal blocks are perfect for many different industrial applications and modern building installations thanks to the secure electrical connections they provide. You can work anywhere in the world and on any application with just a single rail-mount terminal block system. This product is designed for specific Ex applications (please refer to the product datasheet).

Electrical data

| Ratings per | IEC/EN 60998-2-2 | | |
|---|------------------|-----|----|
| Overvoltage category | III | III | II |
| Pollution degree | 3 | 2 | 2 |
| Nominal voltage | 500 V | - | - |
| Rated impulse withstand voltage | 6 kV | - | - |
| Rated current | 13.5 A | - | - |
| Current at conductor cross-section (max.) mm ² | 17.5 A | - | - |

| Approvals per | UL 1059 | | |
|---------------|---------|-------|---|
| Use group | B | C | D |
| Rated voltage | 300 V | 300 V | - |
| Rated current | 10 A | 10 A | - |

| Approvals per | CSA 22.2 No 158 | | |
|---------------|-----------------|-------|---|
| Use group | B | C | D |
| Rated voltage | 300 V | 300 V | - |
| Rated current | 10 A | 10 A | - |

| Ex information | |
|-------------------------------------|---|
| Reference to hazardous areas | See "Downloads – Documentation – Additional Information: Technical Section; Technical Explanations" |
| Ratings per | ATEX: PTB 19 ATEX 1019 U / IECEx: PTB 19.0050U (Ex eb IIC Gb) |
| Rated voltage EN (Ex e II) | 352 V |
| Rated current (Ex e II) | 13.5 A |
| Rated current (Ex e II) with jumper | 12 A |

Power Loss

| | |
|--|------------------|
| Power loss, per pole (potential) | 0.4338 W |
| Rated current I_N for power loss specification | 13.5 A |
| Resistance value for specified, current-dependent power loss | 0.00238 Ω |

General information

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

Connection Data

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

| Connection 1 | |
|--|---|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Operating tool |
| Connectable conductor materials | Copper |
| Nominal cross-section | 1 mm ² |
| Solid conductor | 0.14 ... 1.5 mm ² / 24 ... 16 AWG |
| Solid conductor; push-in termination | 0.5 ... 1.5 mm ² / 20 ... 16 AWG |
| Fine-stranded conductor | 0.14 ... 1.5 mm ² / 24 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.14 ... 1 mm ² / 24 ... 18 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.14 ... 1 mm ² / 24 ... 18 AWG |
| Fine-stranded conductor; with ferrule; push-in termination | 0.5 ... 1 mm ² / 20 ... 18 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 | 9 ... 11 mm / 0.35 ... 0.43 inches |
| Wiring direction | Front-entry wiring |

Physical data

| | |
|-------------------------|------------------------|
| Width | 3.5 mm / 0.138 inches |
| Height from the surface | 27.2 mm / 1.071 inches |
| Depth | 33.2 mm / 1.307 inches |

Mechanical data

| | |
|---------------|---------------------|
| Mounting type | Mounting flange |
| Marking level | Center/side marking |

Material data

| | |
|------------------------------------|--|
| Note (material data) | Information on material specifications can be found here |
| Color | orange |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.05 MJ |
| Weight | 2.5 g |

Environmental requirements

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

Commercial data

| | |
|-----------------------|---------------|
| PU (SPU) | 100 pcs |
| Packaging type | Box |
| Country of origin | IN |
| GTIN | 4066966311983 |
| Customs tariff number | 85369010000 |

Product Classification

| | |
|-----------|----------------------|
| UNSPSC | 39121410 |
| ETIM 9.0 | EC001284 |
| ETIM 10.0 | EC001284 |
| ECCN | NO US CLASSIFICATION |

Environmental Product Compliance

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

Approvals / Certificates

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



| Approval | Standard | Certificate Name |
|------------------|----------|------------------|
| DNV DNV GL SE | - | TAE00003JT |

Approvals for hazardous areas



| Approval | Standard | Certificate Name |
|---|-----------|--------------------|
| ATEX Physikalisch Technische Bundesanstalt | EN 60079 | PTB 19 ATEX 1019 U |
| IECEX Physikalisch Technische Bundesanstalt | IEC 60079 | IECEX PTB 19.0050U |
| INMETRO TÜV Rheinland do Brasil Ltda. | IEC 60079 | TÜV 22.0014 U |

Downloads

Environmental Product Compliance

| Compliance Search |
|--|
| Environmental Product Compliance 2050-302 |

CAD/CAE-Data

| CAD data |
|--------------------------|
| 2D/3D Models 2050-302 |

1 Compatible Products

1.1 System counterpart

1.1.1 Through terminal block



Item No.: 2050-321
 2-conductor miniature through terminal block; with operating slots; 1 mm²; Center terminal block without snap-in mounting foot, without mounting flange; side and center marking; with test port; Push-in CA-GE CLAMP®; 1,00 mm²; gray

1.2 Required Accessories

1.2.1 End plate

1.2.1.1 End plate



Item No.: 2050-381

End plate; with fixing flange; 1.3 mm thick; gray

1.3 Optional Accessories

1.3.1 Ferrule

1.3.1.1 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.: 216-243

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

1.3.2 Installation

1.3.2.1 Mounting accessories



Item No.: 209-137

Mounting adapter; can be used as end stop; 6.5 mm wide; gray

1.3.3 Jumper

1.3.3.1 Jumper



Item No.: 2000-406/020-000

Delta jumper; insulated; light gray



Item No.: 2000-410/000-006

Jumper; 10-way; insulated; blue



Item No.: 2000-410

Jumper; 10-way; insulated; light gray



Item No.: 2000-410/000-005

Jumper; 10-way; insulated; red



Item No.: 2000-402/000-006

Jumper; 2-way; insulated; blue



Item No.: 2000-402

Jumper; 2-way; insulated; light gray



Item No.: 2000-402/000-005

Jumper; 2-way; insulated; red



Item No.: 2000-402/000-018

Jumper; 2-way; insulated; yellow-green



Item No.: 2000-403/000-006

Jumper; 3-way; insulated; blue



Item No.: 2000-403

Jumper; 3-way; insulated; light gray



Item No.: 2000-403/000-005

Jumper; 3-way; insulated; red



Item No.: 2000-404/000-006

Jumper; 4-way; insulated; blue



Item No.: 2000-404

Jumper; 4-way; insulated; light gray



Item No.: 2000-404/000-005

Jumper; 4-way; insulated; red



Item No.: 2000-405/000-006

Jumper; 5-way; insulated; blue



Item No.: 2000-405

Jumper; 5-way; insulated; light gray



Item No.: 2000-405/000-005

Jumper; 5-way; insulated; red



Item No.: 2000-406/000-006

Jumper; 6-way; insulated; blue



Item No.: 2000-406

Jumper; 6-way; insulated; light gray



Item No.: 2000-406/000-005


Jumper; 6-way; insulated; red

1.3.3.1 Jumper











| | | | |
|--|--|--|--|
|  Item No.: 2000-407/000-006 Jumper; 7-way; insulated; blue |  Item No.: 2000-407 Jumper; 7-way; insulated; light gray |  Item No.: 2000-407/000-005 Jumper; 7-way; insulated; red |  Item No.: 2000-408/000-006 Jumper; 8-way; insulated; blue |
|  Item No.: 2000-408 Jumper; 8-way; insulated; light gray |  Item No.: 2000-408/000-005 Jumper; 8-way; insulated; red |  Item No.: 2000-409/000-006 Jumper; 9-way; insulated; blue |  Item No.: 2000-409 Jumper; 9-way; insulated; light gray |
|  Item No.: 2000-409/000-005 Jumper; 9-way; insulated; red |  Item No.: 2000-440 Jumper; from 1 to 10; insulated; light gray |  Item No.: 2000-433/000-006 Jumper; from 1 to 3; insulated; blue |  Item No.: 2000-433 Jumper; from 1 to 3; insulated; light gray |
|  Item No.: 2000-433/000-005 Jumper; from 1 to 3; insulated; red |  Item No.: 2000-434 Jumper; from 1 to 4; insulated; light gray |  Item No.: 2000-435 Jumper; from 1 to 5; insulated; light gray |  Item No.: 2000-436 Jumper; from 1 to 6; insulated; light gray |
|  Item No.: 2000-437 Jumper; from 1 to 7; insulated; light gray |  Item No.: 2000-438 Jumper; from 1 to 8; insulated; light gray |  Item No.: 2000-439 Jumper; from 1 to 9; insulated; light gray |  Item No.: 2000-405/011-000 Star point jumper; 3-way; insulated; light gray |

1.3.4 Marking


1.3.4.1 Group marker carrier

| |
|---|
|  Item No.: 2009-191 Group marker carrier; gray |
|---|

1.3.4.2 Marker

| | | | |
|---|--|---|--|
|  Item No.: 793-3501 WMB marking card; as card; plain; snap-on type; white |  Item No.: 2009-113/000-006 WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; blue |  Item No.: 2009-113/000-007 WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; gray |  Item No.: 2009-113/000-023 WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; green |
|  Item No.: 2009-113/000-017 WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; light green |  Item No.: 2009-113/000-012 WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; orange |  Item No.: 2009-113/000-005 WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; red |  Item No.: 2009-113/000-024 WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; violet |
|  Item No.: 2009-113 WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; white |  Item No.: 2009-113/000-002 WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; yellow | | |

1.3.4.3 Marking strip

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

1.3.5 Protective warning marker

1.3.5.1 Cover



Item No.: 2000-115

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

1.3.6 Push-in type wire jumper

1.3.6.1 Jumper



Item No.: 2009-404

Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; gray



Item No.: 2009-406

Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; gray



Item No.: 2009-402

Push-in type wire jumper; 0.75 mm²; insulated; 60 mm long; gray

1.3.7 Test and measurement

1.3.7.1 Testing accessories



Item No.: 2009-174

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



Item No.: 210-136

Test plug; 2 mm Ø; with 500 mm cable; red



Item No.: 2009-182

Testing tap; for max. 2.5 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray

1.3.8 Tool

1.3.8.1 Operating tool



Item No.: 210-719

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



Item No.: 210-648

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short



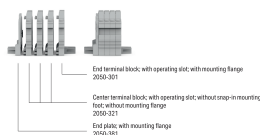
Item No.: 210-647

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Installation Notes

Installation

Example of a 4-pole terminal strip; with operating slots; with mounting flange



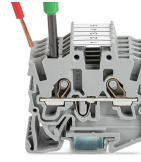
Conductor termination



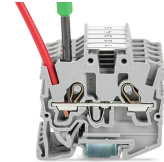
Insert solid conductors via push-in termination.



Insert ferruled conductors via push-in termination.

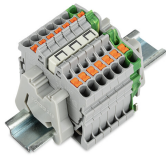


Insert fine-stranded conductors via operating tool.

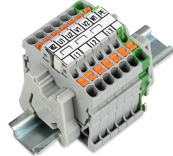


Remove all conductors via operating tool.

Commoning



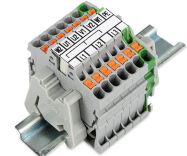
Insert a delta jumper and push down until it hits the backstop (example shows terminal blocks with push-buttons).



Marking strip (Item No. 2009-110) inserted in the marking slot with jumper symbols of the inserted jumper (delta jumper) (example shows terminal blocks with push-buttons)



Insert a star point jumper and push down until it hits the backstop (example shows terminal blocks with push-buttons).



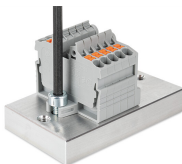
Marking strip (Item No. 2009-110) inserted in the marking slot with jumper symbols of the inserted jumper (2000-405/011-000 Delta Jumper) (example shows terminal blocks with push-buttons)

Testing

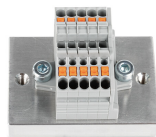


Testing with a 2 mm Ø 210-136 Test Plug (max. 42 V).

Installation



Mounting and securing a terminal strip directly to the plate via screw-type flanges (example shows terminal blocks with push-buttons).



Terminal strip; with mounting flanges; screw mounting (example shows terminal blocks with push-buttons)

Marking



Snapping a marking strip into the marker slot.



Snapping a marking strip (Item No. 2009-110) into a marker slot.