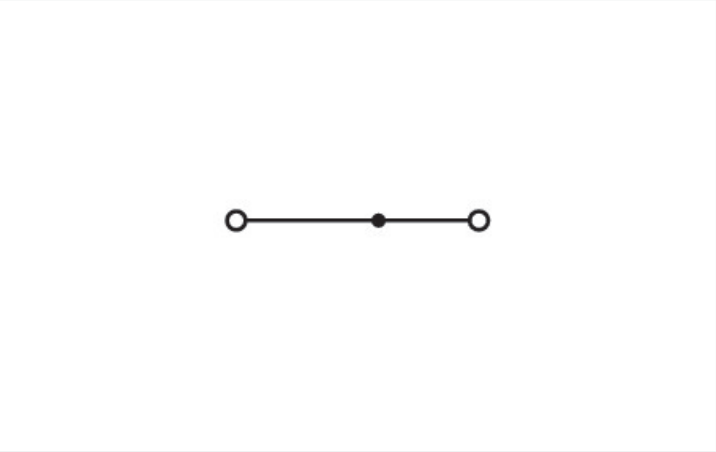
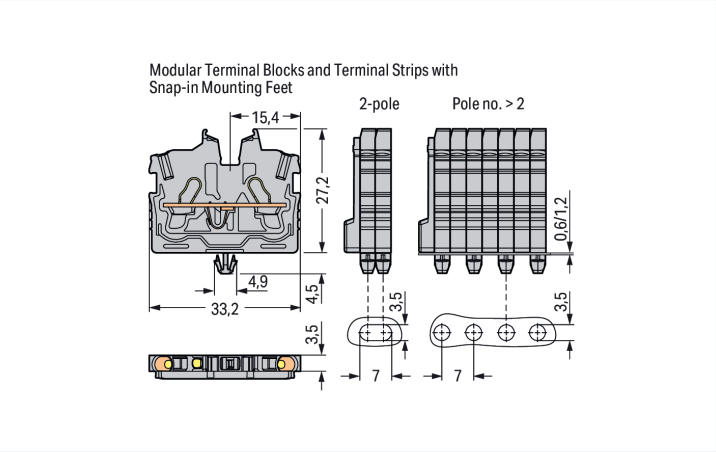
# Data Sheet | Item Number: 2050-315

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

https://www.wago.com/2050-315

Color: ■ black






Similar to illustration

Through terminal block, 2050 Series, Push-in CAGE CLAMP®

Our through terminal block (item number 2050-315) is the ideal way to connect conductors quickly and securely. Strip lengths must be between 9 and 11 mm when connecting conductors to this through terminal block. Our mini rail-mount terminal blocks are the perfect choice when space is limited. A large selection of mounting and actuation variants means you can find a suitable mini terminal block for every purpose. This also means you can adapt the terminal blocks to your unique requirements. Featuring conductor terminals along with Push-in CAGE CLAMP®, this product is highly versatile. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, offering a key advantage: It allows direct insertion of both solid and fine-stranded conductors with ferrules without needing tools. No preparation is required; for example, crimping the conductor's ferrule is not necessary. This through terminal block is suitable for conductor cross sections ranging from 0.14 mm² to 1.5 mm².

This mini rail-mount terminal block is operated with an operating tool. Our TOPJOB® S rail-mount terminal blocks guarantee reliable electrical connections in different industrial applications and modern building installations. They simplify wiring, as you can quickly plug in solid, stranded, and fine-stranded conductors with ferrules. This product is designed for specific Ex applications (please refer to the product datasheet).

 Continued on next page

## 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.) mm² | 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 Explications” |
| 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 mm² |
| Solid conductor | 0.14 … 1.5 mm² / 24 … 16 AWG |
| Solid conductor; push-in termination | 0.5 … 1.5 mm² / 20 … 16 AWG |
| Fine-stranded conductor | 0.14 … 1.5 mm² / 24 … 16 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.14 … 1 mm² / 24 … 18 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.14 … 1 mm² / 24 … 18 AWG |
| Fine-stranded conductor; with ferrule; push-in termination | 0.5 … 1 mm² / 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 |

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## 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 | Snap-in foot |
| Marking level | Center/side marking |

## Material data

| | |
|---|---|
| Note (material data) | Information on material specifications can be found here |
| Color | black |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.043 MJ |
| Weight | 2.4 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 | 4066966312805 |
| 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

### Approvals for marine applications

| Approval | Standard | Certificate Name |
|---|---|---|
| DNV<br>DNV GL SE | - | TAE00003JT |

### Approvals for hazardous areas

| Approval | Standard | Certificate Name |
|---|---|---|
| ATEX<br>Physikalisch Technische Bundesanstalt | EN 60079 | PTB 19 ATEX 1019 U |
| CCC<br>CNEX | GB/T 3836.3 | 2020312313000289 (Ex eb IIC Gb, Ex eb I Mb) |

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### Approvals for hazardous areas

| | | |
|---|---|---|
| IECEx<br>Physikalisch Technische Bundesanstalt | IEC 60079 | IECEx PTB 19.0050U |
| INMETRO<br>TÜV Rheinland do Brasil Ltda. | IEC 60079 | TÜV 22.0014 U |

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 2050-315

### CAD/CAE-Data

#### CAD data

2D/3D Models 2050-315

## 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 CAGE CLAMP®; 1,00 mm²; gray

### 1.2 Required Accessories

#### 1.2.1 End plate

##### 1.2.1.1 End plate

Item No.: 2050-391
End plate; for terminal blocks with snap-in mounting foot; 3.4 mm thick; gray

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## 1.3 Optional Accessories

### 1.3.1 DIN-rail

#### 1.3.1.1 Mounting accessories

Item No.: 210-154
Aluminum carrier rail; 1000 mm long; 18 mm wide; 7 mm high; silver-colored

### 1.3.2 Ferrule

#### 1.3.2.1 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

### 1.3.3 Installation

#### 1.3.3.1 Mounting accessories



Item No.: 209-137
Mounting adapter; can be used as end stop; 6.5 mm wide; gray

Item No.: 209-120
Mounting foot; can be snapped on terminal blocks with snap-in mounting foot; for mounting on relay-modules; 6.4 mm wide; gray

### 1.3.4 Jumper

#### 1.3.4.1 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


Continued on next page

### 1.3.4.1 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

## 1.3.5 Marking

### 1.3.5.1 Group marker carrier

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

### 1.3.5.2 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

### 1.3.5.3 Marking strip

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

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## 1.3.6 Protective warning marker

### 1.3.6.1 Cover

Item No.: 2000-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

## 1.3.7 Push-in type wire jumper

### 1.3.7.1 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

## 1.3.8 Test and measurement

### 1.3.8.1 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

## 1.3.9 Tool

### 1.3.9.1 Operating tool

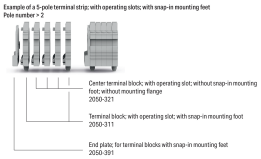
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

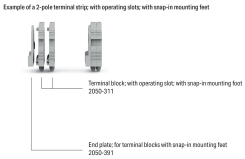
Item No.: 210-648
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short

Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

# Installation Notes

## Installation

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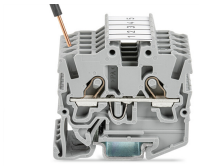
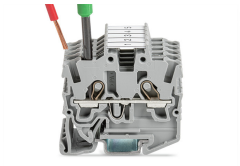
## Conductor termination

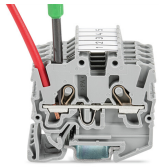


Insert solid conductors via push-in termination.

Insert ferruled conductors via push-in termination.

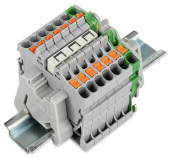


Insert fine-stranded conductors via operating tool.

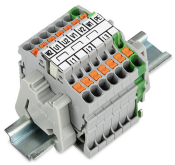


Remove all conductors via operating tool.

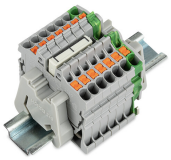
## Commoning



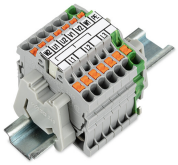
Insert a delta jumper and push down until it hits the backstop (example shows terminal blocks with push-buttons).



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).

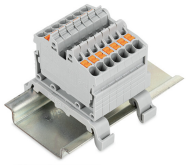
## Installation

Mounting a terminal strip with snap-in feet into holes.

Mounting a terminal strip with snap-in feet onto aluminum rail.

Snapping a mounting foot (209-120) to a terminal strip with snap-in mounting feet.

(Distance between mounting feet: approx. 20 ... 25 mm)



Terminal strip; with snap-in mounting feet; for DIN-35 rail (209-120 Mounting Foot) (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.