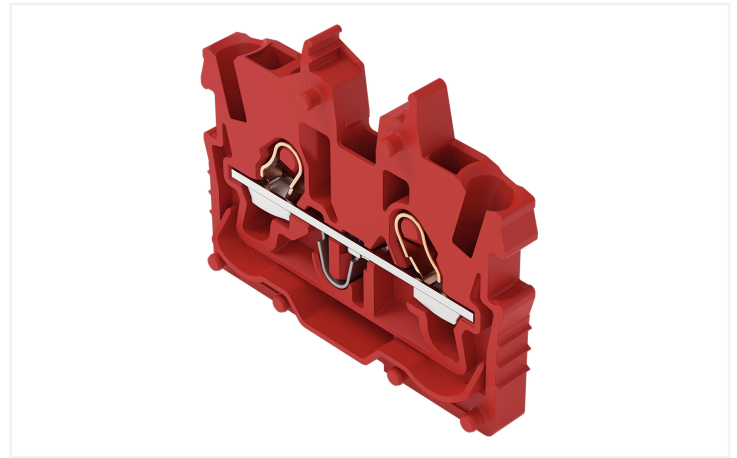
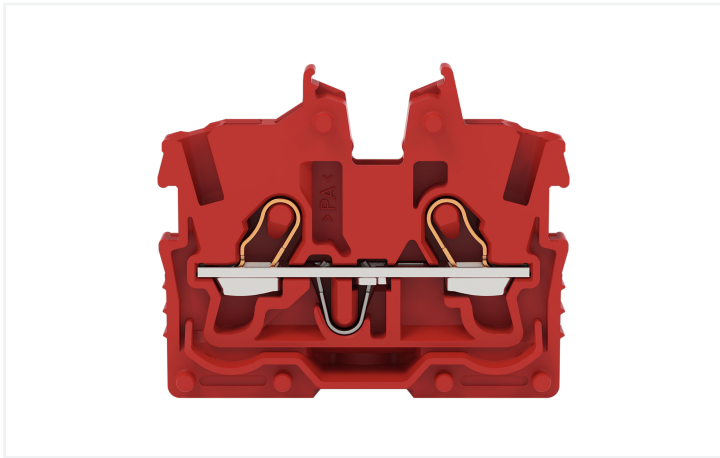


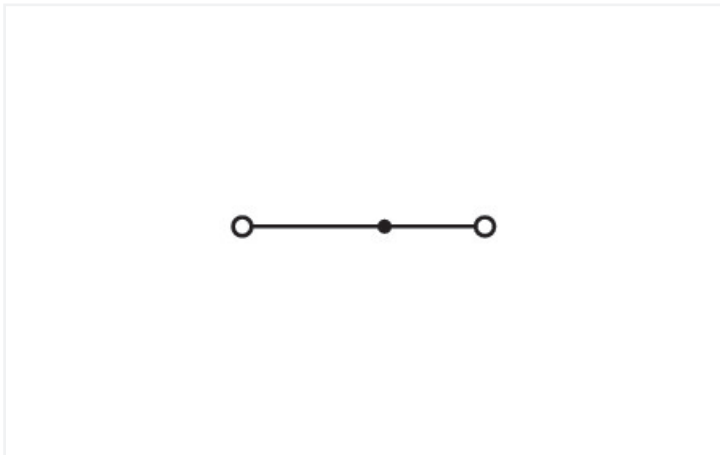
Data Sheet | Item Number: 2050-303

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; red

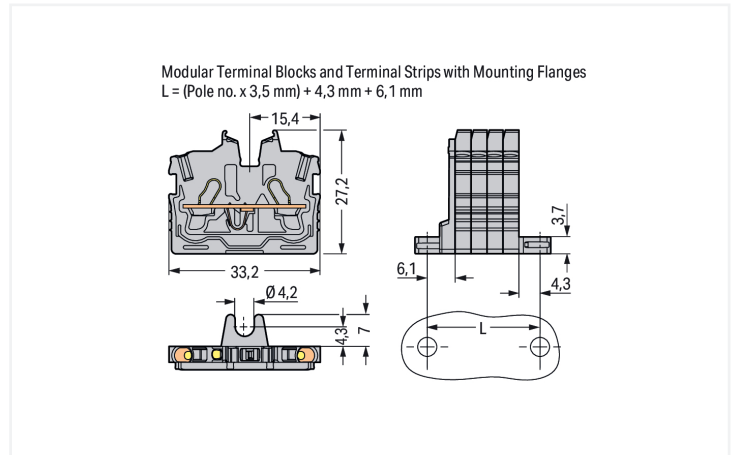
<https://www.wago.com/2050-303>



Color: ■ red



Similar to illustration



Through terminal block, 2050 Series, operating tool

Connect conductors quickly and securely with this through terminal block (item number 2050-303). 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 for working in confined spaces. 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.

An operating tool is used to operate this mini rail-mount terminal block. Our TOPJOB® S rail-mount terminal blocks are perfect for a wide range of industrial applications and modern building installations as they ensure secure electrical connections. 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	red
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.051 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	4066966312218
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
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Approvals / Certificates

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

Approvals for hazardous areas

INMETRO IEC 60079 TÜV 22.0014 U
TÜV Rheinland do Brasil
Ltda.

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 2050-303



CAD/CAE-Data

CAD data

2D/3D Models
2050-303



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



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

1.3.3.1 Jumper



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



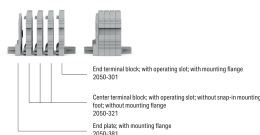
Item No.: 210-647

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



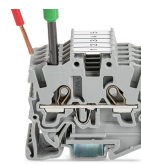
Conductor termination



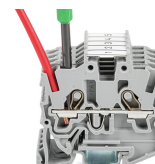
Insert solid conductors via push-in termination.



Insert ferruled conductors via push-in termination.

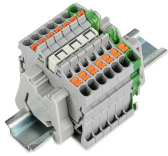


Insert fine-stranded conductors via operating tool.

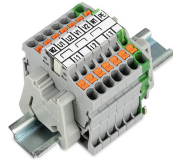


Remove all conductors via operating tool.

Commoning



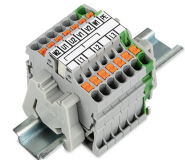
Insert a delta jumper and push down until it hits the backstop (example shows terminal blocks with push-buttons).



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).



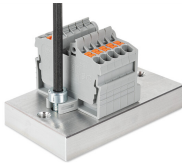
Marking strip (Item No. 2009-110) inserted in the marking slot with jumper symbols of the inserted jumper (2000-405/011-000 Delta Jumper) (example shows terminal blocks with push-buttons)

Testing

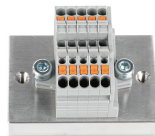


Testing with a 2 mm Ø 210-136 Test Plug (max. 42 V).

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.