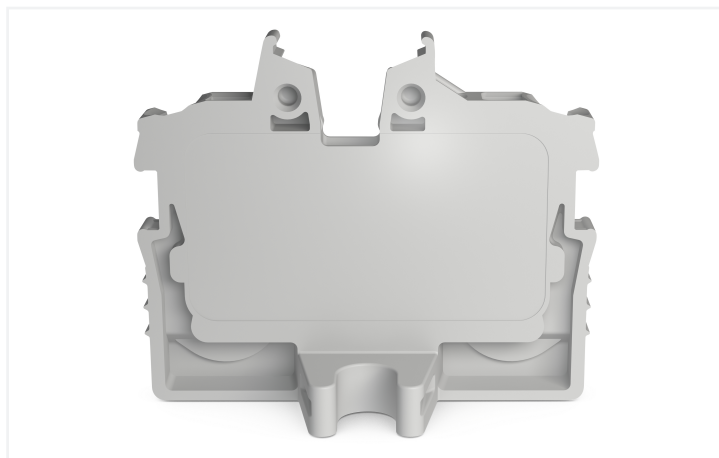
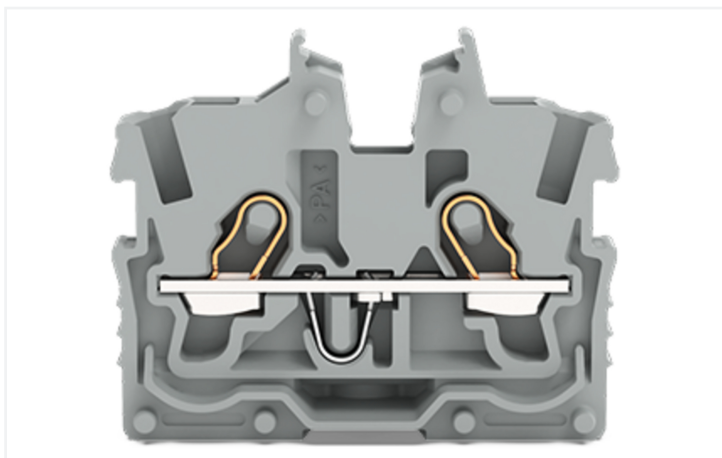


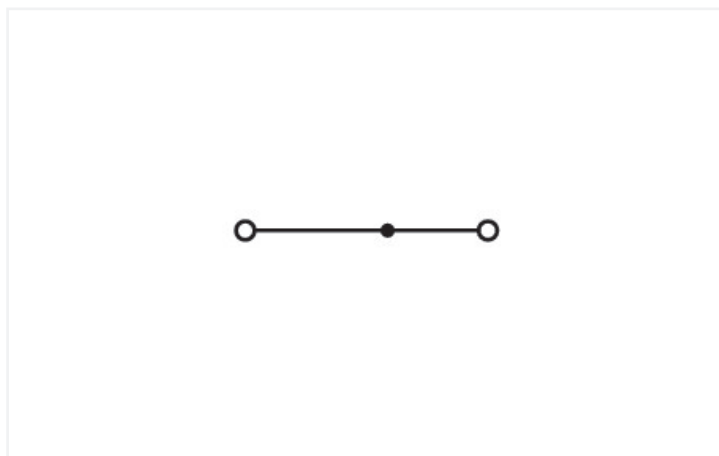
Data Sheet | Item Number: 2050-301

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; gray

<https://www.wago.com/2050-301>

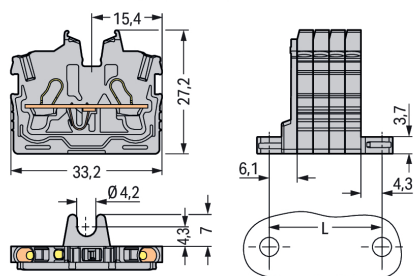


Color: ■ gray



Similar to illustration

Modular Terminal Blocks and Terminal Strips with Mounting Flanges
 $L = (\text{Pole no.} \times 3,5 \text{ mm}) + 4,3 \text{ mm} + 6,1 \text{ mm}$



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

This through terminal block (item number 2050-301) streamlines wire connections, making them both quick and easy. Strip lengths must be between 9 and 11 mm when connecting conductors to this through terminal block. Whether for use in industry or building installations, our rail-mount through ter-

Minimal blocks make it easy to quickly and securely connect electrical conductors. They're perfect for either classic through-wiring or distributing potential, depending on the variant. This product features conductor terminals and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® technology provides a universal connection solution for any type of conductor. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. Depending on the conductor type, this through terminal block is ideal 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 secure electrical connections in various 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).

Electrical data

Ratings per	IEC/EN 60998-2-2			Approvals per	UL 1059		
Overvoltage category	III	III	II	Use group	B	C	D
Pollution degree	3	2	2	Rated voltage	300 V	300 V	-
Nominal voltage	500 V	-	-	Rated current	10 A	10 A	-
Rated impulse withstand voltage	6 kV	-	-				
Rated current	13.5 A	-	-				
Current at conductor cross-section (max.) mm ²	17.5 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.

Connection 1

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	gray
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	4055143968645
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

General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60998	NTR NL 7840
CSA CSA	C22.2 No. 158	80034182
cURus Underwriters Laboratories Inc.	UL 1059	E45172
KEMA/KEUR DEKRA Certification B.V.	EN 60998	71-113957

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	-	-
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
AEx Underwriters Laboratories Inc.	UL 60079	E185892 (AEx eb IIC resp. Ex eb IIC)
ATEX Physikalisch Technische Bundesanstalt	EN IEC 60079-0	PTB 19 ATEX 1019 U (II 2G Ex eb IIC Gb or I M 2 Ex eb I Mb)
CCC CNEX	GB/T 3836.3	2020312313000289 (Ex eb IIC Gb, Ex eb I Mb)
IECEX Physikalisch Technische Bundesanstalt	IEC 60079	IECEX PTB 19.0050U (Ex eb IIC Gb or EX eb I Mb)
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079	TÜV 22.0014 U

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2050-301



CAD/CAE-Data

CAD data

2D/3D Models 2050-301



CAE data

EPLAN Data Portal 2050-301



WSCAD Universe 2050-301



ZUKEN Portal 2050-301



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.: 2050-381

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



[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

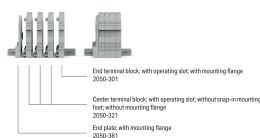
Item No.: 210-647

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

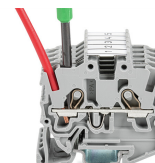
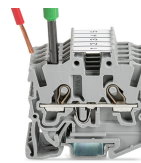
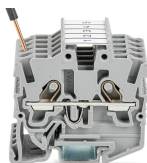
Installation Notes

Installation

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



Conductor termination



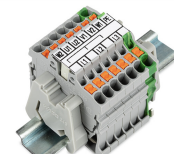
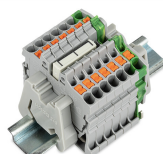
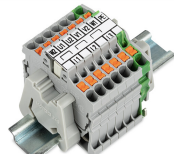
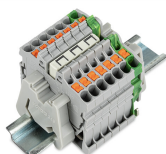
Insert solid conductors via push-in termination.

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).

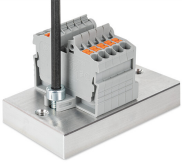
Marking strip (Item No. 2009-110) inserted in the marking slot with jumper symbols of the inserted jumper (2000-405/011-000 Delta Jumper) (example shows terminal blocks with push-buttons)

Testing

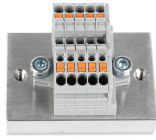


Testing with a 2 mm Ø 210-136 Test Plug (max. 42 V).

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.