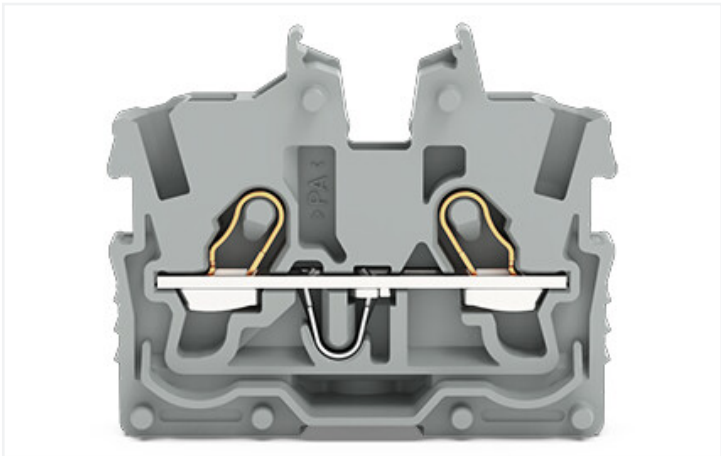


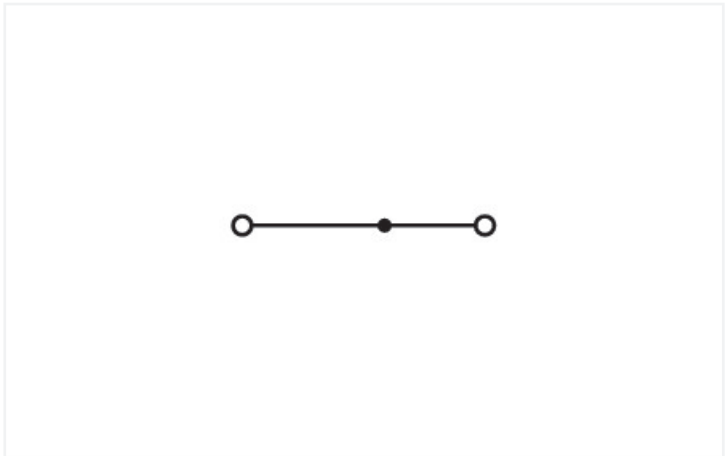
Data Sheet | Item Number: 2050-301

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

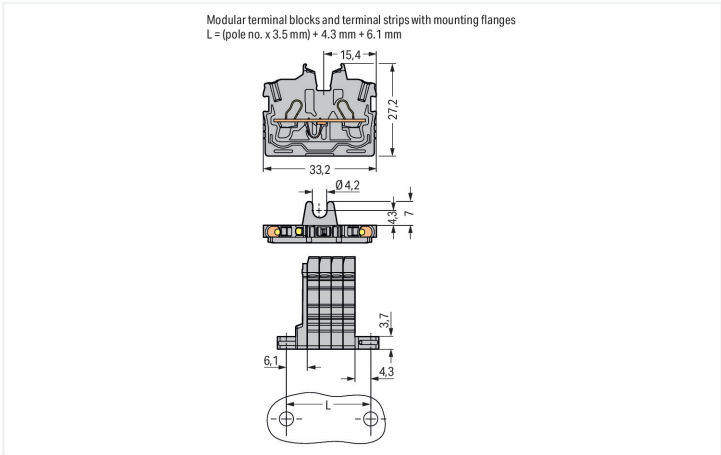
<https://www.wago.com/2050-301>



Color: gray



Similar to illustration



Electrical data

Ratings per IEC/EN	
Ratings per	IEC/EN 60998-2-2
Nominal voltage (III/3)	500 V
Rated impulse voltage (III/3)	6 kV
Rated current	13.5 A
Current at conductor cross-section (max.) mm²	17.5 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Ratings per UL 1059	
Approvals per	UL 1059
Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	10 A
Rated voltage UL (Use Group C)	300 V
Rated current UL (Use Group C)	10 A

Ratings per CSA	
Approvals per	CSA 22.2 No 158
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A
Rated voltage CSA (Use Group C)	300 V
Rated current CSA (Use Group C)	10 A

Ex information	
Reference 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 specified power loss	13.5 A
Resistance value for specified, current-dependent power loss	0.00238 Ω

Connection data			
Connection points	2	Connection 1	
Total number of potentials	1	Connection technology	Push-in CAGE CLAMP®
Number of levels	1	Actuation type	Operating tool
Number of jumper slots	1	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 ... 0.75 mm² / 24 ... 18 AWG
		Fine-stranded conductor; with ferrule; push-in termination	0.5 ... 0.75 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

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	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0 MJ
Weight	2.5 g



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

Commercial data	
ETIM 8.0	EC001284
ETIM 7.0	EC001284
PU (SPU)	100 pcs
Country of origin	DE
GTIN	4055143968645
Customs tariff number	85369010000

Approvals / Certificates

General approvals		Declarations of conformity and manufacturer's declarations
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
Approval		Standard
EU-Declaration of Confor- mity WAGO GmbH & Co. KG		-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG		-

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		

Documentation		
Additional Information		
Technical Section	pdf 2142.18 KB	

CAD/CAE-Data		
CAD data		CAE data
2D/3D Models 2050-301		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 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

**Item No.: 209-123**

Mounting foot with screw; can be screwed on terminal blocks with fixing flange; 6.4 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

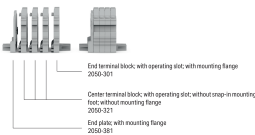


Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Installation Notes

Installation

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



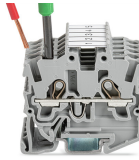
Conductor termination



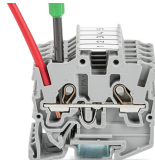
Insert solid conductors via push-in termination.



Insert ferruled conductors via push-in termination.

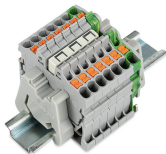


Insert fine-stranded conductors via operating tool.

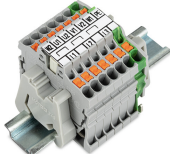


Remove all conductors via operating tool.

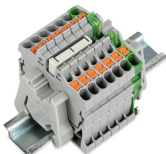
Commoning



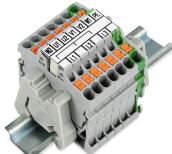
Insert a delta jumper and push down until it hits the backstop (example shows terminal blocks with push-buttons).



Marking strip (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).



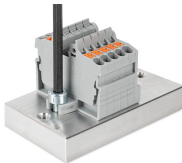
Marking strip (2009-110) inserted in the marking slot with jumper symbols of the inserted jumper (2000-405/011-000 Delta Jumper) (example shows terminal blocks with push-buttons)

Testing

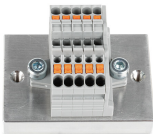


Testing with a 2 mm Ø 210-136 Test Plug (max. 42 V).

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 (2009-110) into a marker slot.