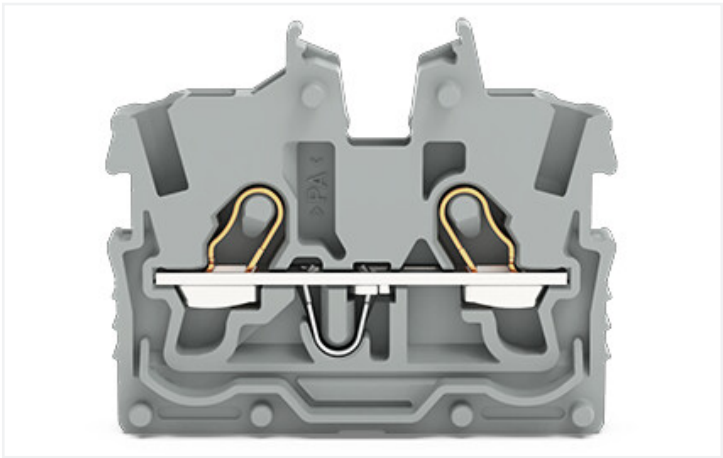


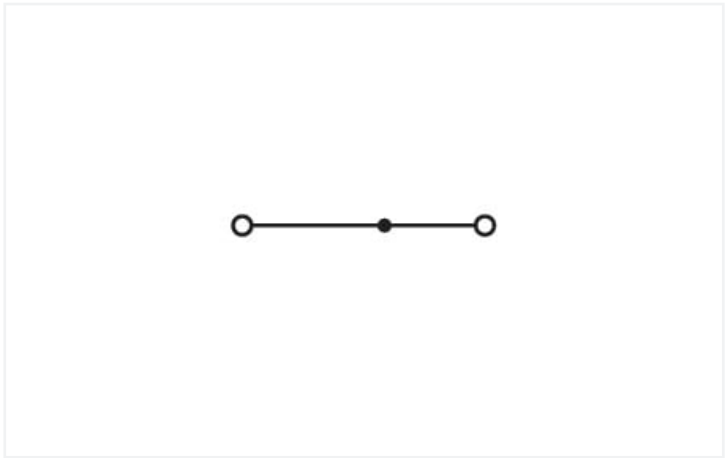
Data Sheet | Item Number: 2050-321

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

<https://www.wago.com/2050-321>



Color: ■ gray



Similar to illustration

Electrical data

Ratings per	IEC/EN 60998-2-2		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	500 V	-	-
Rated surge 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 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 specified power loss	13.5 A
Resistance value for specified, current-dependent power loss	0.00238 Ω

Connection data

Connection points	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 ... 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	none
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	2.3 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
Packaging type		Box
Country of origin		DE
GTIN		4055143964784
Customs tariff number		85369010000

Environmental Product Compliance		
RoHS Compliance Status		Compliant,No Exemption

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60998	NTR NL 7840	ATEX-Attestation of Con- formity WAGO GmbH & Co. KG	-	-
CSA CSA	C22.2 No. 158	80034182	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
cURus Underwriters Laboratories Inc.	UL 1059	E45172	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
KEMA/KEUR DEKRA Certification B.V.	EN 60998	71-113957			

Approvals for hazardous areas

Approval	Standard	Certificate Name
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 2050-321

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Documentation

Additional Information

Technical Section

pdf 2240.62 KB

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CAE data

EPLAN Data Portal 2050-321

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WSCAD Universe 2050-321

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ZUKEN Portal 2050-321

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1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 2050-381
End plate; with fixing flange; 1.3 mm thick; gray

1.2 Optional Accessories

1.2.1 Ferrule

1.2.1.1 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

1.2.2 Jumper

1.2.2.1 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

1.2.3 Marking

1.2.3.1 Group marker carrier



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



1.2.3.2 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

1.2.3.3 Marking strip



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

1.2.4 Protective warning marker

1.2.4.1 Cover



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

1.2.5 Push-in type wire jumper

1.2.5.1 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

1.2.6 Test and measurement

1.2.6.1 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

1.2.7 Tool

1.2.7.1 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



End terminal block, with operating slot, with mounting flange
2050-321
Center terminal block, with operating slot, without snap-in mounting foot, without mounting flange
2050-311
End plate, with mounting flange
2050-381

Example of a 5-pole terminal strip, with operating slots, with snap-in mounting foot
Pole number = 2



Center terminal block, with operating slot, without snap-in mounting foot, without mounting flange
2050-321
Terminal block, with operating slot, with snap-in mounting foot
2050-311
End plate, for terminal blocks with snap-in mounting foot
2050-391

Conductor termination



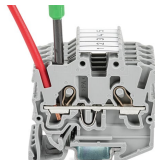
Insert solid conductors via push-in termination.



Insert ferruled conductors via push-in termination.

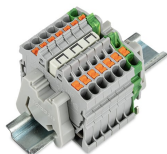


Insert fine-stranded conductors via operating tool.

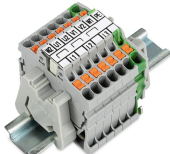


Remove all conductors via operating tool.

Commoning



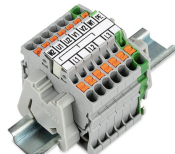
Insert a delta jumper and push down until it hits the backstop (example shows terminal blocks with push-buttons).



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).



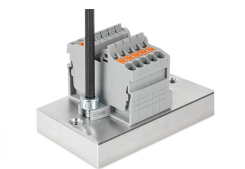
Marking strip (2009-110) inserted in the marking slot with jumper symbols of the inserted jumper (2000-405/011-000 Delta Jumper) (example shows terminal blocks with push-buttons)

Testing



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

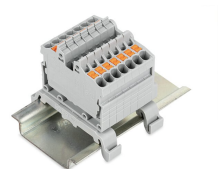
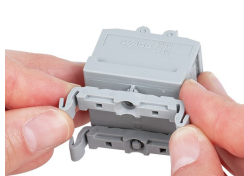
Installation



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)

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 (2009-110) into a marker slot.