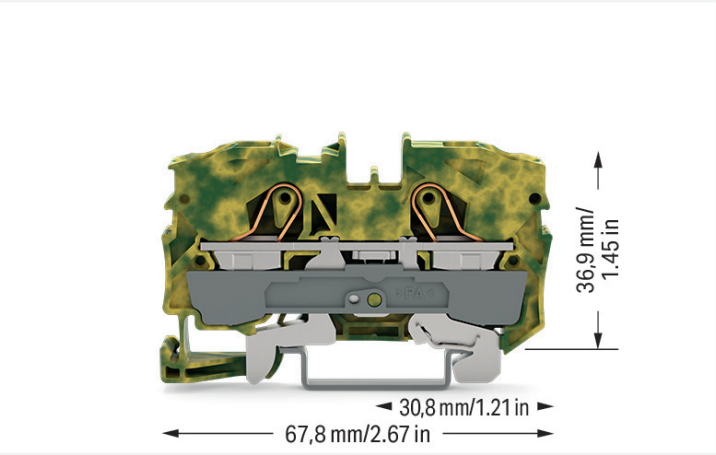
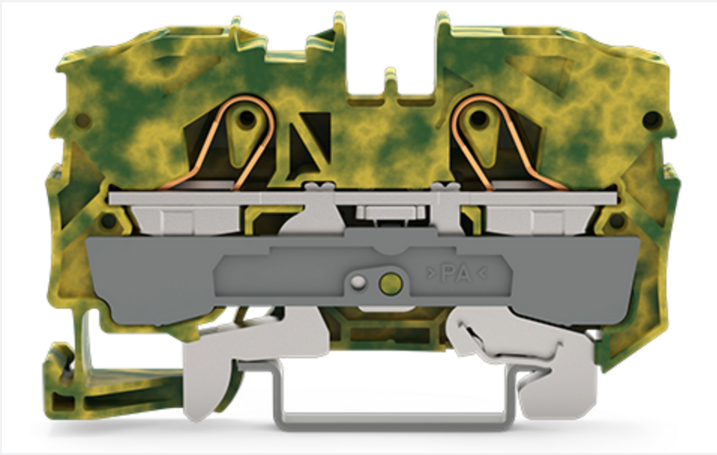
Data Sheet | Item Number: 2010-1207

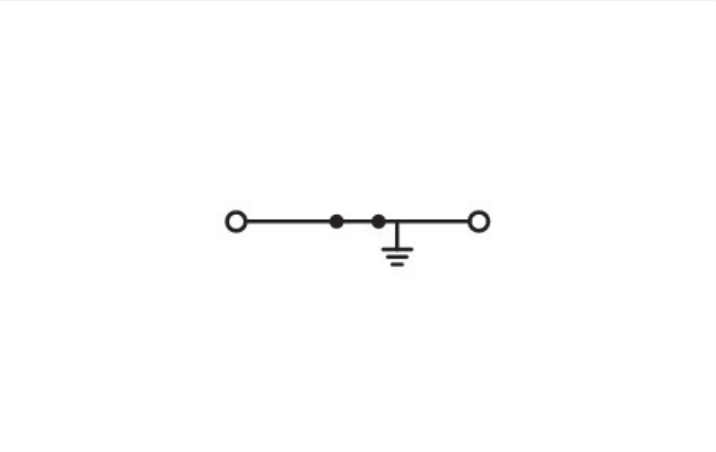
2-conductor ground terminal block; 10 mm²; suitable for Ex e II applications; side and center marking; for DIN-rail 35 x 15 and 35 x 7.5; Push-in CAGE CLAMP®; 10,00 mm²; green-yellow

https://www.wago.com/2010-1207





Color: green-yellow



Similar to illustration

Ground terminal block, 2010 Series, Push-in CAGE CLAMP®

Our ground terminal block (item number 2010-1207) is the ideal way to connect conductors quickly and securely. Conductors can only be connected to this ground terminal block if their strip length is between 17 and 19 mm . Ground terminal blocks connect directly to the mounting rail via an integrated contact foot. This creates an electrical and mechanical connection between the electrical conductors and the mounting adapter. This product incorporates conductor terminals and utilizes Push-in CAGE CLAMP®. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, boasting a key feature: both solid and fine-stranded conductors with ferrules can be directly inserted without the need for tools or any preparation, such as crimping the ferrule. Depending on the conductor type, this ground terminal block is ideal for conductor cross sections ranging from 0.5 mm² to 16 mm².

An operating tool is used to operate this through rail-mount terminal block. Our TOPJOB® S rail-mount terminal blocks guarantee reliable electrical connections in various industrial applications and modern building installations. They make wiring work easier 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 60947-7-2		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	-
Rated impulse withstand voltage	-	-	-
Rated current	-	-	-

Ex information	
Reference to hazardous areas	See “Downloads – Documentation – Additional Information: Technical Section; Technical Explications”

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	2

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Nominal cross-section	10 mm²
Solid conductor	0.5 … 16 mm² / 20 … 6 AWG
Solid conductor; push-in termination	4 … 16 mm² / 14 … 6 AWG
Fine-stranded conductor	0.5 … 16 mm² / 20 … 6 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor; with ferrule; push-in termination	4 … 10 mm² / 12 … 8 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. AWG specifications were converted according to IEC.
Strip length	17 … 19 mm / 0.67 … 0.75 inches
Wiring direction	Front-entry wiring

Physical data

Width	10 mm / 0.394 inches
Height	67.8 mm / 2.669 inches
Depth from upper-edge of DIN-rail	36.9 mm / 1.453 inches

Mechanical data

Mounting type	DIN-35 rail
Marking level	Center/side marking

 Continued on next page

Material data

Note (material data)	Information on material specifications can be found here
Color	green-yellow
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.294 MJ
Weight	30.1 g

Environmental requirements

Processing temperature	-35 … +85 °C
Continuous operating temperature	-60 … +105 °C

Environmental Testing

Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B
Functional test with noise-like oscillations	Test passed according to Section 8 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

 Continued on next page

Commercial data

Product Group	22 (TOPJOB S)
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	DE
GTIN	4017332076180
Customs tariff number	85369010000

Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-41
eCl@ss 9.0	27-14-11-41
ETIM 9.0	EC000901
ETIM 10.0	EC000901
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7876
CSA DEKRA Certification B.V.	C22.2 No. 158	70111238
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-119201
UL UL International Germany GmbH	UL 1059	E45172

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	-	-
Railway WAGO GmbH & Co. KG	-	Railway Ready
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	24-0152298-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
PRS Polski Rejestr Statków	-	TE/1094/880590/23

Approvals for hazardous areas

Approval	Standard	Certificate Name
AEx UL International Germany GmbH c/o Physikalisch Technische Bundesanstalt	UL 60079	E185892 (Ex e II)
ATEX Physikalisch Technische Bundesanstalt (PTB)	EN 60079	PTB 05 ATEX 1070 U (II 2 G Ex eb II C bzw. I M 2 Ex eb I Mb)
CCC CNEX	GB/T 3836.3	2020312313000161 (Ex eb IIC Gb, Ex eb I Mb)
IECEx Physikalisch Technische Bundesanstalt (PTB)	IEC 60079	IECEx PTB 06.0003 U (Ex eb IIC Gb and Ex ebI Mb)
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079	TÜV 12.1311 U

 Continued on next page

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 2010-1207

Documentation

Bid Text			
2010-1207	17.04.2019	xml 3.80 KB	
2010-1207	17.04.2019	docx 14.88 KB	

CAD/CAE-Data

CAD data
2D/3D Models 2010-1207

CAE data
EPLAN Data Portal 2010-1207
WSCAD Universe 2010-1207
ZUKEN Portal 2010-1207

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate

Item No.: 2010-1291
End and intermediate plate; 1 mm thick; gray

Item No.: 2010-1292
End and intermediate plate; 1 mm thick; orange

Item No.: 209-191
Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide; orange

1.2 Optional Accessories

1.2.1 Cover

1.2.1.1 Cover

Item No.: 2010-100
Finger guard; touchproof cover protects unused conductor entries; yellow

 Continued on next page

1.2.2 DIN-rail

1.2.2.1 Mounting accessories

Item No.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

Item No.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored

Item No.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored

Item No.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

Item No.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

Item No.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

1.2.3 Ferrule

1.2.3.1 Ferrule

Item No.: 216-284
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-289
Ferrule; Sleeve for 10 mm² / AWG 8; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

Item No.: 216-286
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

Item No.: 216-287
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

Item No.: 216-288
Ferrule; Sleeve for 6 mm² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

1.2.4 Installation

1.2.4.1 Cover

Item No.: 709-156
Cover; Type 3; suitable for cover carrier, type 3; 1 m long; transparent

1.2.4.2 Cover carrier

Item No.: 709-169
Cover carrier; Type 3; incl. fixing/retaining screws and knurled nut; suitable for 279 to 282 and 880 Series rail-mounted terminal blocks; suitable for 264 Series miniature rail-mounted terminal blocks; suitable for 270 Series sensor and actuator terminal blocks; gray

 Continued on next page

1.2.5 Jumper

1.2.5.1 Jumper

Item No.: 2010-402
Jumper; 2-way; insulated; light gray

Item No.: 2010-403
Jumper; 3-way; insulated; light gray

Item No.: 2010-404
Jumper; 4-way; insulated; light gray

Item No.: 2010-405
Jumper; 5-way; insulated; light gray

Item No.: 2010-433
Jumper; from 1 to 3; insulated; light gray

Item No.: 2010-434
Jumper; from 1 to 4; insulated; light gray

Item No.: 2010-435
Jumper; from 1 to 5; insulated; light gray

Item No.: 2010-405/011-000
Star point jumper; 3-way; insulated; light gray

1.2.6 Marking

1.2.6.1 Group marker carrier

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

Item No.: 2009-192
Group marker carrier; gray

Item No.: 2009-193
Group marker carrier; gray

1.2.6.2 Marker

Item No.: 2009-145/000-006
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 2009-145/000-002
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

Item No.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue

Item No.: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

Item No.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

Item No.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

Item No.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

Item No.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

Item No.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

Item No.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

Item No.: 248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

Item No.: 793-5501/000-006
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 793-5501/000-007
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 793-5501/000-023
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 793-5501/000-017
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green

Item No.: 793-5501/000-012
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 793-5501/000-005
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 793-5501/000-024
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 793-5501/000-002
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

Item No.: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type; blue

Item No.: 793-501/000-007
WMB marking card; as card; not stretchable; plain; snap-on type; gray

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1.2.6.2 Marker

Item No.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type; green

Item No.: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type; light green

Item No.: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type; orange

Item No.: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type; red

Item No.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type; violet

Item No.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white

Item No.: 793-501/000-002
WMB marking card; as card; not stretchable; plain; snap-on type; yellow

Item No.: 2009-115/000-006
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 2009-115/000-007
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 2009-115/000-023
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 2009-115/000-017
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green

Item No.: 2009-115/000-012
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 2009-115/000-024
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 2009-115/000-002
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.2.6.3 Marker carrier

Item No.: 2009-198
Adaptor; gray

1.2.6.4 Marking strip

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

1.2.7 Protective warning marker

1.2.7.1 Cover

Item No.: 2010-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

 Continued on next page

1.2.8 Screwless end stop

1.2.8.1 Mounting accessories

Item No.: 249-117
Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

Item No.: 249-116
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.2.9 Test and measurement

1.2.9.1 Testing accessories

Item No.: 2010-511
Modular TOPJOB®S connector; modular; for jumper contact slot; 1-pole; gray

Item No.: 2010-549
Spacer module; modular; e.g., for bridging commoned terminal blocks; gray

Item No.: 2009-174
Test plug adapter; for 4 mm Ø test plugs; for testing TOPJOB®S rail-mounted terminal blocks; gray

Item No.: 2009-182
Testing tap; for max. 2.5 mm²; tool-free connection for individual test wires 0.08 - 2.5 mm; gray

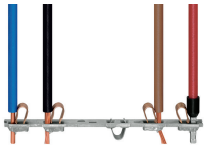
1.2.10 Tool

1.2.10.1 Operating tool

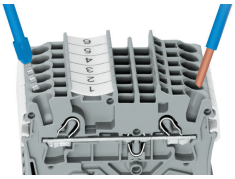
Item No.: 210-721
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

Installation Notes

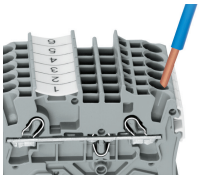
Conductor termination



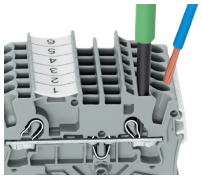
All conductor types at a glance



Push-in termination of solid and ferruled conductors



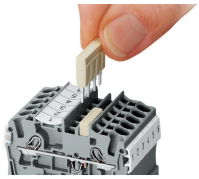
Inserting a conductor via push-in termination:
Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in – no tools needed.



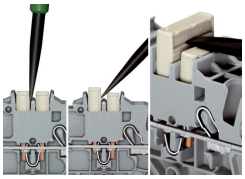
Inserting a conductor via operating tool:
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.
Advantage:
To open the clamp, the operating tool is inserted vertically. The conductor entry is less than 15 degrees for easier wiring.

 Continued on next page

Commoning

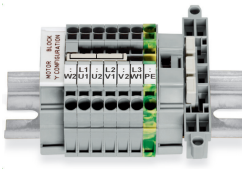


Insert push-in type jumper bar and push down until it hits backstop.



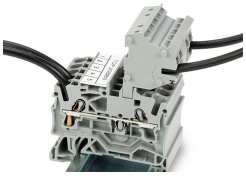
Removing a push-in type jumper bar:
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

Commoning

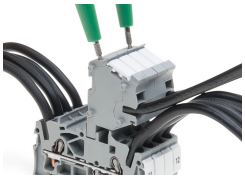


This star point jumper has been specially developed to create a "star point" and is used on motor terminal boards equipped with Rail-Mount Terminal Blocks TOPJOB® S.

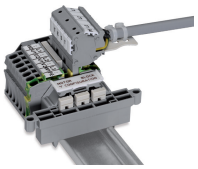
Testing



The modular TOPJOB® S connectors also connect conductors of the same size as the terminal blocks being used.

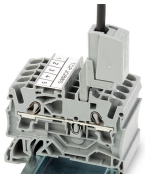


TOPJOB® S Connectors with a 2 mm Ø test socket for testing voltage via 2-pole voltage tester



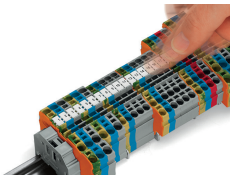
Rail-mount terminal block assembly for electric motor wiring

Test plug adapter (Item No. 2009-174, CAT I) for 4 mm Ø plugs – compatible with 2000 to 2016 Series

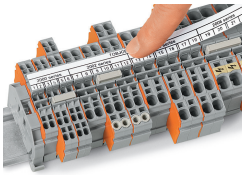


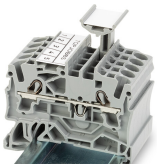
Testing tap (Item No. 2009-182) for tool-free connection of test cables up to 2.5 mm² (12 AWG) – compatible with 2000 to 2016 Series

Marking



Snapping WMB Inline markers into marker slots.





TOPJOB® S 2009-193 Group Marker Carrier (equipped with a marking strip) for all 2001 to 2016 Series TOPJOB® S Rail-Mount Terminal Blocks
Do not use on an end plate!

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