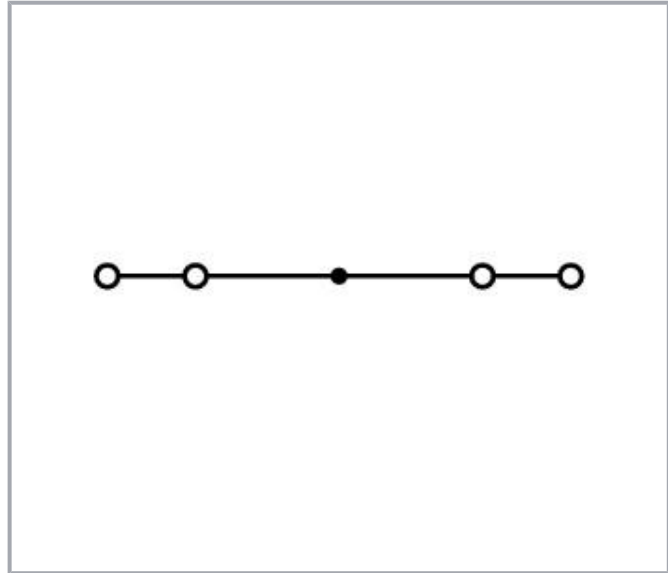
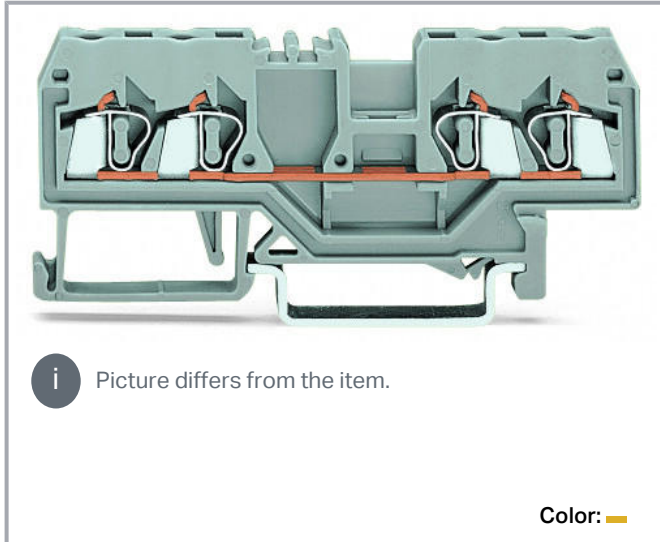


Data sheet | Item number: 280-832

4-conductor through terminal block; 2.5 mm²; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; yellow



www.wago.com/280-832



Data

Electrical data

Ratings per	IEC/EN 60947-7-1
Nominal voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
Rated current	20 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Connection data

Total number of connection points	4
Total number of potentials	1
Number of levels	1
Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum

Anschließbare Leiterwerkstoffe Hinweis

Subject to changes. Please also observe the further product documentation!

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Phone: +49571 887-0 | Fax: +49571 887-169
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Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Terminating Aluminum Conductors

WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste is used for termination.

"Alu-Plus" Contact Paste Advantages:

- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately be inserted into the clamping units filled with "Alu-Plus" Contact Paste.

For spring clamp connections with PUSH WIRE® connection technology, **WAGO recommends that the aluminum conductor first be cleaned** and then immediately inserted into the clamping unit filled with "Alu-Plus" contact paste.

It is also possible to apply WAGO "Alu-Plus" **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors::

2.5 mm² = 16 A

4 mm² = 22 A

Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Wiring direction	Front-entry wiring

Physical data

Width	5 mm / 0.197 inch
Height	75 mm / 2.953 inch
Depth from upper edge of DIN-rail	28 mm / 1.102 inch

Subject to changes. Please also observe the further product documentation!

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Do you have any questions about our products?
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Mechanical data

Design	horizontal type
Mounting type	DIN-35 rail
Marking level	Center marking

Material data



Color	yellow
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.141 MJ
Weight	9 g

Commercial data

PU (SPU)	100 Stück
Packaging type	box
Country of origin	DE
GTIN	4044918311250
Customs tariff number	85369010000

Approvals / Certificates

Country specific Approvals



Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	2157201.01
	CSA DEKRA Certification B.V.	C22.2	1536071

Ship Approvals


Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	EN 60947	20- HG1941090- PDA

Subject to changes. Please also observe the further product documentation!





	BV Bureau Veritas S.A.	EN 60947	07436/F0 BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
	LR Lloyds Register	EN 60947	91/20112 (E9)

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	E45172

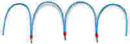
Required accessories

End plate


















End plate		
	Item no.: 280-314 End and intermediate plate; 2.5 mm thick; gray	www.wago.com/280-314
	Item no.: 280-315 End and intermediate plate; 2.5 mm thick; orange	www.wago.com/280-315

Optional accessories













Jumpers

Jumper		
	Item no.: 210-123 Wire commoning chain; insulated; blue	www.wago.com/210-123
	Item no.: 280-402 Jumper; insulated; gray	www.wago.com/280-402
	Item no.: 210-103 Wire commoning chain; insulated; black	www.wago.com/210-103

Subject to changes. Please also observe the further product documentation!

	Item no.: 280-492 Jumper; 2-way; insulated; gray	www.wago.com/280-492
	Item no.: 280-409 Jumper; insulated; gray	www.wago.com/280-409
	Item no.: 280-422 Jumper; insulated; yellow-green	www.wago.com/280-422
	Item no.: 280-482 Jumper; 2-way; insulated; gray	www.wago.com/280-482
	Item no.: 280-484 Jumper; 4-way; insulated; gray	www.wago.com/280-484
	Item no.: 280-490 Jumper; 10-way; insulated; gray	www.wago.com/280-490
	Item no.: 280-485 Jumper; 5-way; insulated; gray	www.wago.com/280-485
	Item no.: 280-483 Jumper; 3-way; insulated; gray	www.wago.com/280-483
	Item no.: 284-414 Step-down jumper; from 284/282 to 281/280/279 series; insulated; gray	www.wago.com/284-414
	Item no.: 709-110 Wire commoning chain; 2.5 mm ² ; insulated; black	www.wago.com/709-110
	Item no.: 709-112 Wire commoning chain; 2.5 mm ² ; insulated; black	www.wago.com/709-112
	Item no.: 709-111 Wire commoning chain; 2.5 mm ² ; insulated; black	www.wago.com/709-111
	Item no.: 780-454 Staggered jumper; from 1 to 4; insulated; gray	www.wago.com/780-454
	Item no.: 780-452 Staggered jumper; from 1 to 2; insulated; gray	www.wago.com/780-452
	Item no.: 780-453 Staggered jumper; from 1 to 3; insulated; gray	www.wago.com/780-453
	Item no.: 780-457 Staggered jumper; from 1 to 7; insulated; gray	www.wago.com/780-457
	Item no.: 780-456 Staggered jumper; from 1 to 6; insulated; gray	www.wago.com/780-456

Subject to changes. Please also observe the further product documentation!




	Item no.: 780-455 Staggered jumper; from 1 to 5; insulated; gray	www.wago.com/780-455
	Item no.: 780-458 Staggered jumper; from 1 to 8; insulated; gray	www.wago.com/780-458
Protective warning marker		
Cover		
	Item no.: 280-415 Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow	www.wago.com/280-415
Mounting		
Mounting accessories		
	Item no.: 209-106 Mounting carrier; for isolated mounting on DIN 35 rails; gray	www.wago.com/209-106
	Item no.: 249-116 Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	www.wago.com/249-116
	Item no.: 709-153 Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent	www.wago.com/709-153
	Item no.: 709-167 Cover carrier; Type 1; 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	www.wago.com/709-167
Plugs		
Neon indicator module		
	Item no.: 280-803/281-417 Component plug; 2-pole; 10 mm wide; gray	www.wago.com/280-803/281-417
	Item no.: 280-803/281-418 Component plug; 2-pole; 10 mm wide; gray	www.wago.com/280-803/281-418
Diode plug		
	Item no.: 280-803/281-420 Component plug; 2-pole; with rectifier diode and LED; 10 mm wide; gray	www.wago.com/280-803/281-420
	Item no.: 280-803/281-421 Component plug; 2-pole; with rectifier diode and LED; 10 mm wide; gray	www.wago.com/280-803/281-421
LED plug		
	Item no.: 280-803/281-411 Component plug; 2-pole; with diode 1N4007; 10 mm wide; gray	www.wago.com/280-803/281-411

Subject to changes. Please also observe the further product documentation!

	Item no.: 280-803/281-414 Component plug; 2-pole; LED (red); 48 VDC; 10 mm wide; gray	www.wago.com/280-803/281-414
	Item no.: 280-803/281-413 Component plug; 2-pole; LED (red); 24 VDC; 10 mm wide; gray	www.wago.com/280-803/281-413
	Item no.: 280-803/281-415 Component plug; 2-pole; LED (red); 10 mm wide; gray	www.wago.com/280-803/281-415
	Item no.: 280-803/281-416 Component plug; 2-pole; LED (red); 10 mm wide; gray	www.wago.com/280-803/281-416
Empty component plug housing		
	Item no.: 280-803 Empty component plug housing; 10 mm wide; Type 4; 2-pole; gray	www.wago.com/280-803
Ferrule		
Ferrule		
	Item no.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-101
	Item no.: 216-104 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-104
	Item no.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-102
	Item no.: 216-103 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-103
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-302
Tool		


Subject to changes. Please also observe the further product documentation!

Operating tool




	Item no.: 210-657 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured	www.wago.com/210-657
	Item no.: 210-658 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured	www.wago.com/210-658
	Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	www.wago.com/210-720

Marking accessories





Double marker carrier

	Item no.: 209-128 Adaptor; gray	www.wago.com/209-128
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Marker




	Item no.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-115
	Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white	www.wago.com/793-501
	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	www.wago.com/793-5501

Group marker carrier

	Item no.: 209-142 Group marker carrier; gray	www.wago.com/209-142
	Item no.: 209-141 Group marker carrier; gray	www.wago.com/209-141
	Item no.: 209-140 Group marker carrier; gray	www.wago.com/209-140
	Item no.: 249-105 Group marker carrier; gray	www.wago.com/249-105

Push-in type wire jumper

Jumper

	Item no.: 249-123 Push-in type wire jumper; 0.75 mm ² ; insulated; 180 mm long; black	www.wago.com/249-123
	Item no.: 249-126 Push-in type wire jumper; 0.75 mm ² ; insulated; 110 mm long; black	www.wago.com/249-126
	Item no.: 249-127 Push-in type wire jumper; 0.75 mm ² ; insulated; 250 mm long; black	www.wago.com/249-127

Subject to changes. Please also observe the further product documentation!



Item no.: 249-125
Push-in type wire jumper; insulated; 60 mm long; black

www.wago.com/249-125

End plate

End plate



Item no.: 284-336
Step-down cover plate; 1 mm thick; for 4-conductor 279-831, 280-833 and 281-652 terminal blocks; gray www.wago.com/284-336



Item no.: 284-346
Step-down cover plate; 1 mm thick; for 4-conductor 279-831, 280-833 and 281-652 terminal blocks; orange www.wago.com/284-346



Item no.: 280-335
Separator plate; 2 mm thick; oversized; orange www.wago.com/280-335



Item no.: 280-334
Separator plate; 2 mm thick; oversized; gray www.wago.com/280-334

Insulation stop

Insulation stop



Item no.: 280-472
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip www.wago.com/280-472



Item no.: 280-470
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white www.wago.com/280-470



Item no.: 280-471
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray www.wago.com/280-471

Carrier rail

Mounting accessories



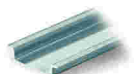
Item no.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored www.wago.com/210-197



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 www.wago.com/210-198



Item no.: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored www.wago.com/210-504



Item no.: 210-505
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored www.wago.com/210-505

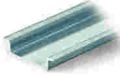




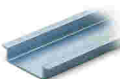












Item no.: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored www.wago.com/210-506



Item no.: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored www.wago.com/210-508

Subject to changes. Please also observe the further product documentation!

	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	www.wago.com/210-113
	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	www.wago.com/210-118
	Item no.: 210-112 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored	www.wago.com/210-112
	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	www.wago.com/210-114
	Item no.: 210-115 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored	www.wago.com/210-115
	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	www.wago.com/210-196
Testing and measuring		
Testing accessories		
	Item no.: 209-170 Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm ² - 10 mm ² tbs; gray	www.wago.com/209-170
	Item no.: 281-407 Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm ² - 2.5 mm ² ; 2,50 mm ² ; gray	www.wago.com/281-407
	Item no.: 249-106 B-type test plug module; modular; 1,50 mm ² ; gray	www.wago.com/249-106
	Item no.: 249-107 B-type spacer module; modular; e.g., for bridging commoned terminal blocks; gray	www.wago.com/249-107
	Item no.: 249-141 L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm ² ; gray	www.wago.com/249-141
	Item no.: 249-143 L-type spacer module; modular; e.g., bridging commoned terminal blocks; gray	www.wago.com/249-143
	Item no.: 249-142 L-type end module; modular; with rigid contact pin; End module; 1,50 mm ² ; gray	www.wago.com/249-142
	Item no.: 280-418 Test plug module; modular; suitable for all WAGO 280 and 780 Series rail-mounted terminal blocks with jumper slots in the current bar; gray	www.wago.com/280-418
	Item no.: 280-404 Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm ² - 4 mm ² tbs; gray	www.wago.com/280-404
	Item no.: 280-419 Spacer module; modular; bridging commoned terminal blocks; gray	www.wago.com/280-419

Subject to changes. Please also observe the further product documentation!



Downloads

Documentation

Bid Text

280-832 doc - Datei	Feb 28, 2017	doc 24.6 kB	Download
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280-832 X81 - Datei	Feb 19, 2019	xml 3.3 kB	Download
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Additional Information

Technical explanations	Apr 3, 2019	pdf 2.2 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 280-832	URL	Download
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CAE data

EPLAN Data Portal 280-832	URL	Download
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WSCAD Universe 280-832	URL	Download
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ZUKEN Portal 280-832	URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 280-832 4-conductor through terminal block; 2.5 mm ² ; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm ² ; yellow	URL	Download
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Installation Notes

Installation

Subject to changes. Please also observe the further product documentation!

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Snapping a terminal block onto the DIN-rail.



Quick assembly keys prevent reverse mounting.

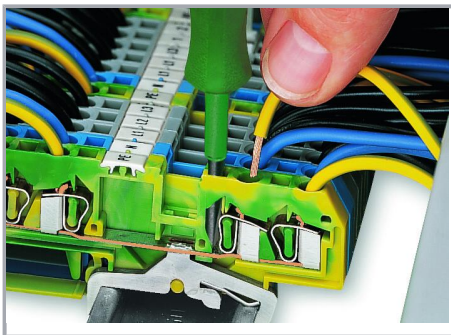


Removing a terminal block from the assembly.



Steel DIN-rails are not suited for PEN (ground and N-conductor) applications per EN 60947-7-2 (VDE 0611, Part 3).

Conductor termination



CAGE CLAMP® connection

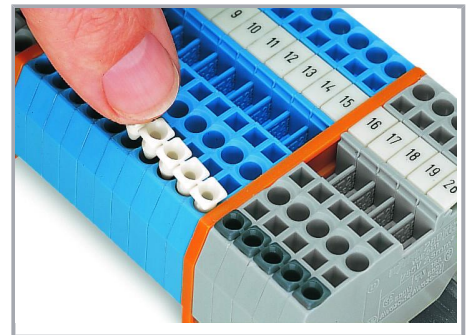
Inserting a conductor.



CAGE CLAMP® connection

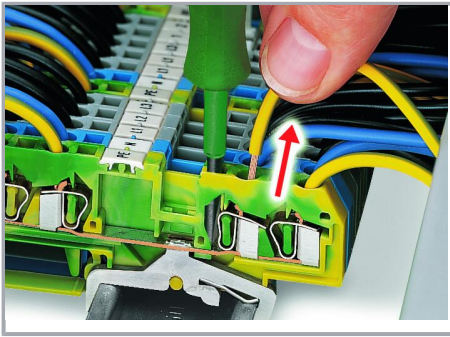
Inserting a conductor.

With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.



Inserting insulation stops.

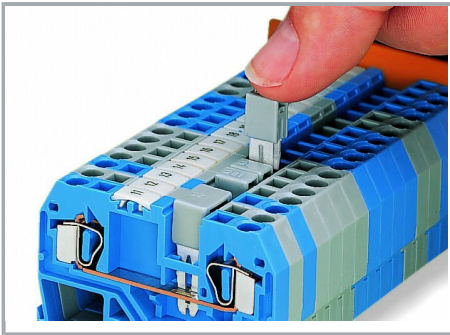
Subject to changes. Please also observe the further product documentation!



CAGE CLAMP® connection

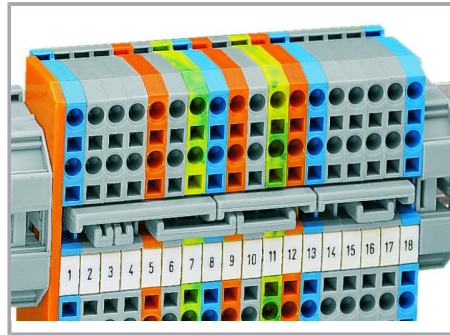
Removing a solid conductor.

Commoning



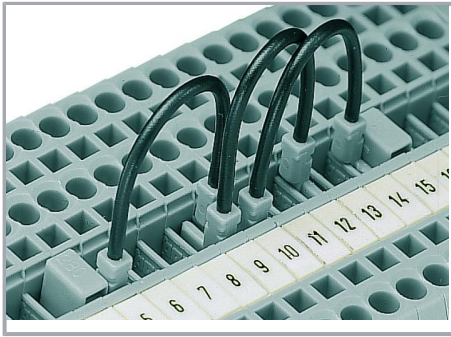
Commoning using an adjacent jumper (280-402).

Push jumper down until fully inserted!



Staggered jumpers are suitable for sophisticated circuit requirements. Push jumpers down until fully inserted!

Subject to changes. Please also observe the further product documentation!



Push-In Type Wire Jumpers

When installing machines or control systems, it is often necessary to make an additional connection between two terminal blocks that are not next to each other on the rail. In such cases, WAGO's touch-proof, push-in type wire jumpers are the ideal solution.

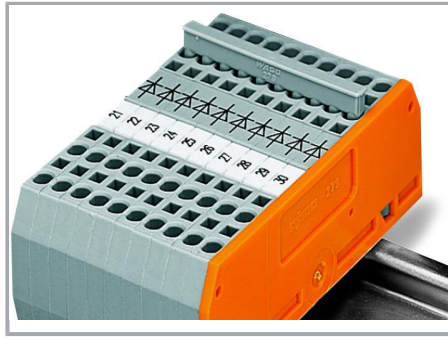
These jumpers are compatible with the following rail-mount terminal blocks:

- 279 Series (1.5 mm²/16 AWG),
- 280/775/780 Series (2.5 mm²/14 AWG)
- 281/769/776/777/781 and 880 Series (4 mm²/12 AWG)

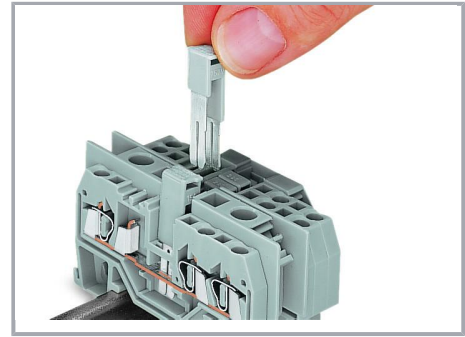
They are available in three conductor lengths (60, 110 and 250 mm), allowing up to 60 terminal blocks to be commoned depending on their width (see table on the right).

The 280/775/780 and 281/776/777/781 Series Terminal Blocks accept two wire jumpers, allowing the use of commoning chains. Furthermore, the 280/769/775/780 /880 and 281/776/777/781 Series allow both wire jumper and adjacent jumper to be simultaneously plugged into a same terminal block.

Testing

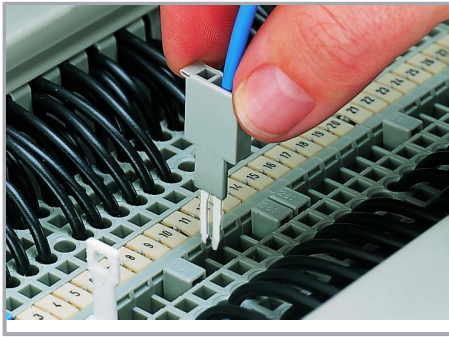


Commoning using comb-style jumper bars: Push comb-style jumper bars down until fully inserted.



Commoning terminal blocks of different sizes via step-down jumpers.

Subject to changes. Please also observe the further product documentation!

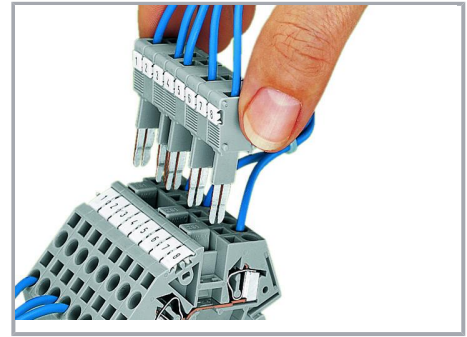


Testing with a test plug.

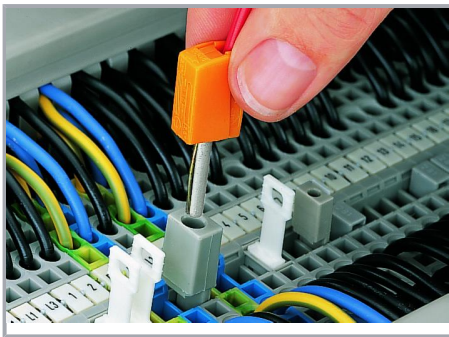
Picture shows a test plug fitted with CAGE CLAMP®.



L-type test plug modules fitted with CAGE CLAMP®

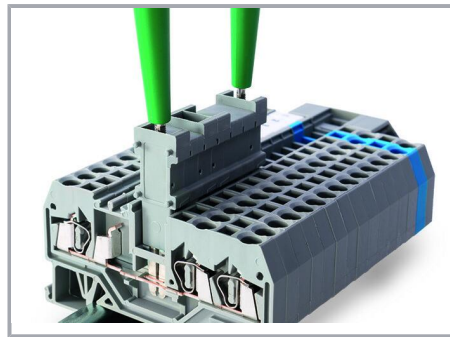


B-type test plug modules fitted with CAGE CLAMP®



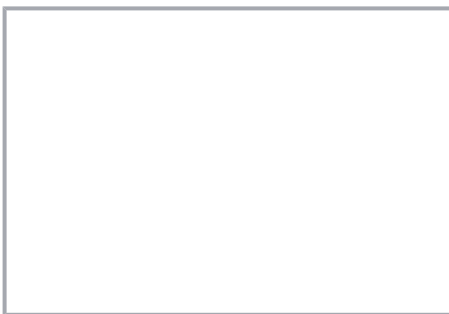
Testing with a test plug.

Picture shows a test plug adapter (209-170).



Test plugs modules are directly plugged into the jumper contact slot of the current bar.

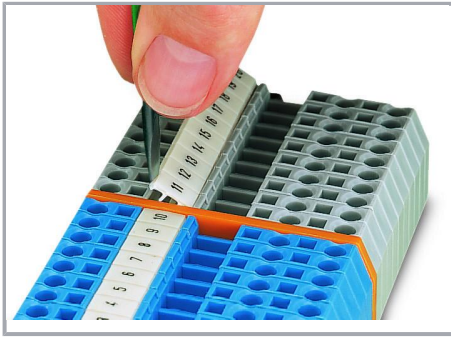
Cover



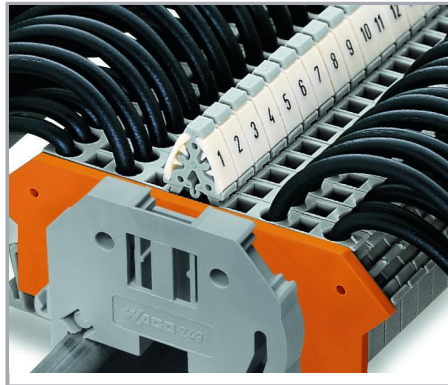
Protective warning markers inserted into the operating slots

Marking

Subject to changes. Please also observe the further product documentation!



Labeling via WMB Multi Marking System.



Terminal block marking with double marker carriers (209-128)

Terminal blocks with side marking

Subject to changes. Please also observe the further product documentation!