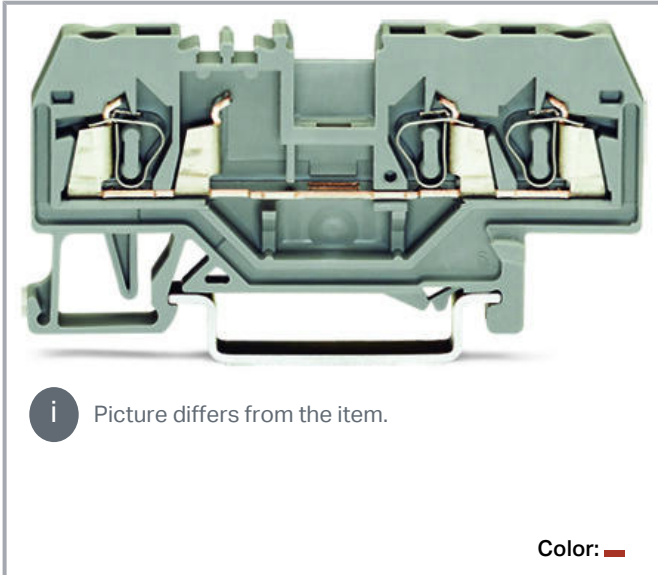


Data sheet | Item number: 280-653

3-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; red

www.wago.com/280-653



i Picture differs from the item.

Color: 

Data

Electrical data

IEC Approvals

Ratings per	IEC/EN 60947-7-1
Rated voltage (III / 3)	800 V
Rated surge voltage (III/3)	8 kV
Rated current	24 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Anschließbare Leiterwerkstoffe Hinweis	Terminating Aluminum Conductors WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm ² /12 AWG if WAGO "Alu-Plus" Contact Paste is used for termination. "Alu-Plus" Contact Paste Advantages: <ul style="list-style-type: none">Automatically

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

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

Do you have any questions about our products?
We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.



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
Total number of connection points	3
Total number of potentials	1
Number of levels	1
Wiring direction	Front-entry wiring

Physical data

Width	5 mm / 0.197 inch
Height	64 mm / 2.52 inch
Depth from upper edge of DIN-rail	28 mm / 1.102 inch

Mechanical data

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

Material data

Color	red
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.123 MJ

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

WAGO Corporation
 Germantown, WI 53022
 Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
 Email: info.us@wago.com | Web: www.wago.us

Do you have any questions about our products?
 We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.



Weight	7.6 g
--------	-------

Commercial data





Packaging type	box
Country of origin	DE
GTIN	4044918391184
Customs tariff number	8536904000

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
	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

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

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

Do you have any questions about our products?
We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	20170731-E45172




Required accessories

End plates






	Item no.: 280-324 End and intermediate plate; 2.5 mm thick; gray	www.wago.com/280-324
	Item no.: 280-326 End and intermediate plate; 2.5 mm thick; orange	www.wago.com/280-326

Optional accessories

Tools

	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

Plugs

	Item no.: 280-803 Empty component plug housing; 10 mm wide; Type 4; 2-pole; gray	www.wago.com/280-803
	Item no.: 280-803/281-411 Diode plug; with diode 1N4007; 10 mm wide	www.wago.com/280-803/281-411
	Item no.: 280-803/281-413 LED plug; with red LED; 10 mm wide; 24 VDC	www.wago.com/280-803/281-413
	Item no.: 280-803/281-414 LED plug; with red LED; 10 mm wide; 48 VDC	www.wago.com/280-803/281-414
	Item no.: 280-803/281-415 LED plug; with red LED; 10 mm wide; 24 V AC/DC	www.wago.com/280-803/281-415

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

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

Do you have any questions about our products?
We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.



Item no.: 280-803/281-416
LED plug; with red LED; 10 mm wide; AC/DC 48 V

www.wago.com/280-803/281-416



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



Item no.: 280-803/281-420
Diode plug; with 1N4007 recovery diode; red LED; 10 mm wide; 24 VDC

www.wago.com/280-803/281-420



Item no.: 280-803/281-421
Diode plug; with 1N4007 recovery diode; red LED; 10 mm wide; 48 VDC

www.wago.com/280-803/281-421

Protective warning marker



Item no.: 280-415
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

www.wago.com/280-415

Jumpers



Item no.: 210-103
Wire commoning chain; insulated; black

www.wago.com/210-103



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.: 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.: 280-483
Jumper; 3-way; insulated; gray

www.wago.com/280-483



Item no.: 280-484
Jumper; 4-way; insulated; gray

www.wago.com/280-484



Item no.: 280-485
Jumper; 5-way; insulated; gray



















www.wago.com/280-485


















Item no.: 280-490
Jumper; 10-way; insulated; gray

www.wago.com/280-490

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.: 284-414 Step-down jumper; 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.: 709-111 Wire commoning chain; 2.5 mm ² ; insulated; black	www.wago.com/709-111
	Item no.: 709-112 Wire commoning chain; 2.5 mm ² ; insulated; black	www.wago.com/709-112
	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.: 780-454 Staggered jumper; from 1 to 4; insulated; gray	www.wago.com/780-454
	Item no.: 780-455 Staggered jumper; from 1 to 5; insulated; gray	www.wago.com/780-455
	Item no.: 780-456 Staggered jumper; from 1 to 6; insulated; gray	www.wago.com/780-456
	Item no.: 780-457 Staggered jumper; from 1 to 7; insulated; gray	www.wago.com/780-457
	Item no.: 780-458 Staggered jumper; from 1 to 8; insulated; gray	www.wago.com/780-458
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.: 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.: 249-142 L-type end module; modular; with rigid contact pin; End module; 1,50 mm ² ; gray	www.wago.com/249-142
	Item no.: 249-143 L-type spacer module; modular; e.g., bridging commoned terminal blocks; gray	www.wago.com/249-143

















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

	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.: 280-418 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.: 280-419 Spacer module; modular; bridging commoned terminal blocks; gray	www.wago.com/280-419
	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
End plates		
	Item no.: 280-344 Separator plate; 2 mm thick; oversized; gray	www.wago.com/280-344
	Item no.: 280-346 Separator plate; 2 mm thick; oversized; orange	www.wago.com/280-346
	Item no.: 284-334 Step-down cover plate; 1 mm thick; for 2-, 3- and 4-conductor terminal blocks; gray	www.wago.com/284-334
	Item no.: 284-344 Step-down cover plate; 1 mm thick; for 2-, 3- and 4-conductor terminal blocks; orange	www.wago.com/284-344
Mounting		
	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
Insulations stops		
	Item no.: 280-470 Insulation stop; 0.08 - 0.2 mm ² "s" (0.14 mm ² "f-st"); 5 pieces/strip; white	www.wago.com/280-470
	Item no.: 280-471 Insulation stop; 0.25 - 0.5 mm ² ; 5 pieces/strip; light gray	www.wago.com/280-471
	Item no.: 280-472 Insulation stop; 0.75 - 1 mm ² ; 5 pieces/strip	www.wago.com/280-472
Marking accessories		
	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.: 209-128 Adaptor; gray	www.wago.com/209-128

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

	Item no.: 209-140 Group marker carrier; gray	www.wago.com/209-140
	Item no.: 209-141 Group marker carrier; gray	www.wago.com/209-141
	Item no.: 209-142 Group marker carrier; gray	www.wago.com/209-142
	Item no.: 209-185 Adaptor; gray	www.wago.com/209-185
	Item no.: 249-105 Group marker carrier; gray	www.wago.com/249-105
	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
Push-in type wire 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.: 249-125 Push-in type wire jumper; insulated; 60 mm long; black	www.wago.com/249-125
	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
Carrier rail		
	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.: 210-113 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.: 210-114 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.: 210-118 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.: 210-196 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

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

	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
Ferrules		
	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.: 216-102 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.: 216-104 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-104
	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.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	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

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



Downloads

Documentation

Bid Text

280-653 doc - Datei	28 Feb 2017	doc 24.6 kB	Download
------------------------	-------------	----------------	----------

280-653 X81 - Datei	19 Feb 2019	xml 3.3 kB	Download
------------------------	-------------	---------------	----------

Additional Information

Technical explanations	3 Apr 2019	pdf 2.2 MB	Download
------------------------	------------	---------------	----------

CAD files

CAE data

EPLAN Data Portal 280-653	URL	Download
---------------------------	-----	----------

WSCAD Universe 280-653	URL	Download
------------------------	-----	----------

ZUKEN Portal 280-653	URL	Download
----------------------	-----	----------

CAD data

2D/3D Models 280-653	URL	Download
----------------------	-----	----------

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 280-653 3-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 ; red	URL	Download
--	-----	----------

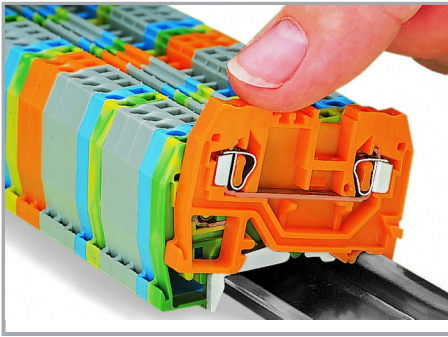
Installation Notes

Installation

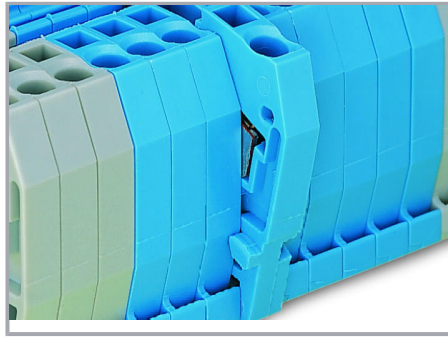
Subject to changes. Please also observe the further product documentation!

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

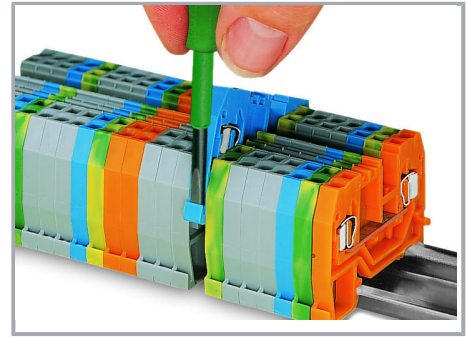
Do you have any questions about our products?
We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.



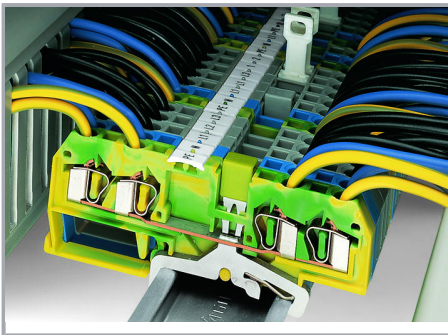
Snapping a terminal block onto the DIN-rail.



Quick assembly keys prevent reverse mounting.

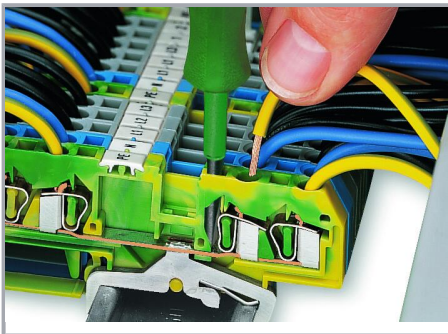


Removing a terminal block from the assembly.



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

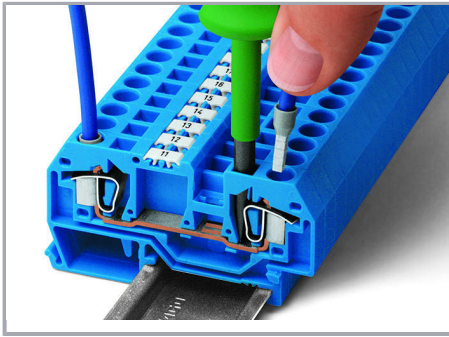
Conductor termination



CAGE CLAMP® connection

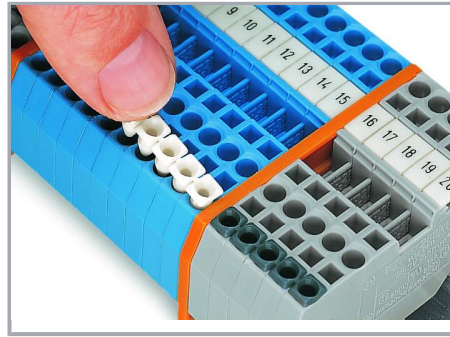
Inserting a conductor.

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

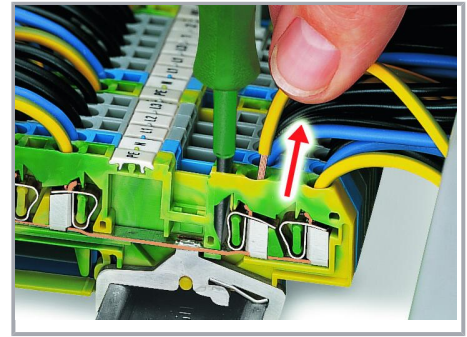


CAGE CLAMP® connection

Inserting a conductor.



Inserting insulation stops.

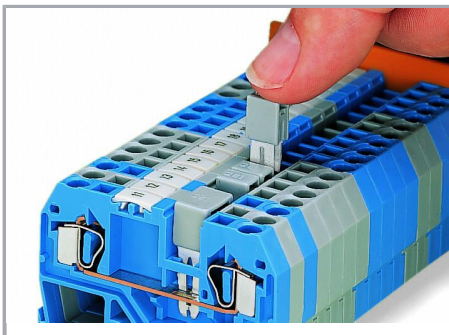


CAGE CLAMP® connection

Removing a solid conductor.

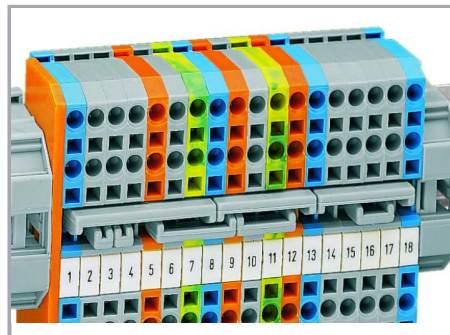
With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.

Commoning



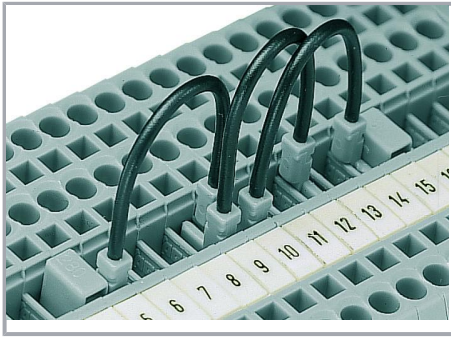
Commoning using an adjacent jumper (280-402).

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:

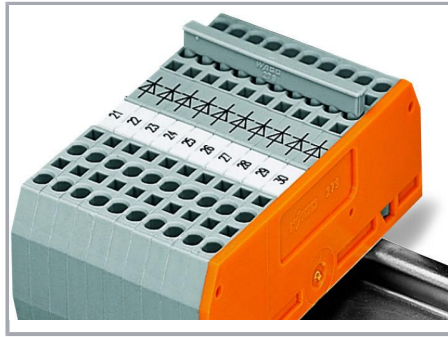
- 279 Series (1.5 mm²/16 AWG),
- 280/775/780 Series (2.5 mm²/14 AWG)
- 281/769/776/777/781 and 880 Series (4 mm²/12 AWG)

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).

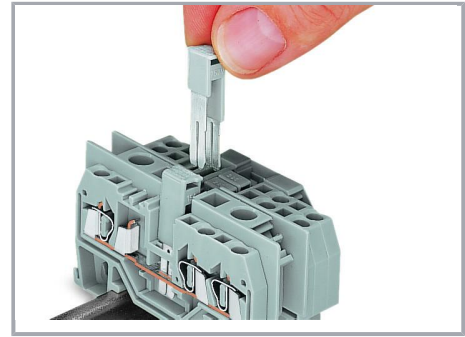
The 280/775/780 and 281/776/777/781 Series Terminal Blocks accept two wire jumpers, allowing the use of commoning chains. Furthermore, the 280/769/775/780 /880 and 281/776/777/781 Series allow both wire jumper and adjacent jumper to be simultaneously plugged into a same terminal block.

Testing

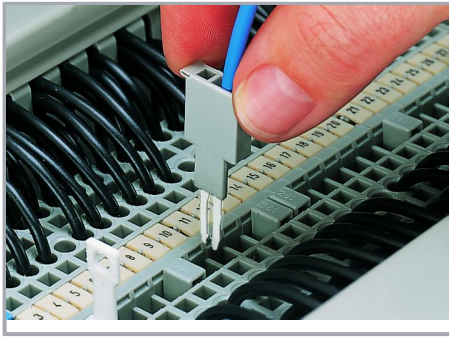
Subject to changes. Please also observe the further product documentation!



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

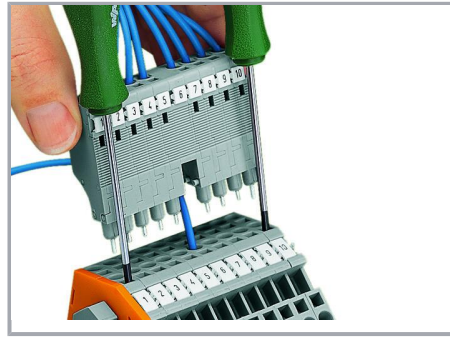


Commoning terminal blocks of different sizes via step-down jumpers.

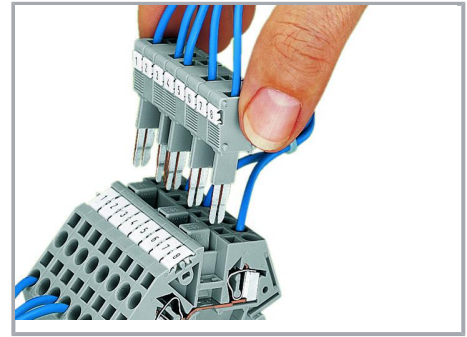


Testing with a test plug.

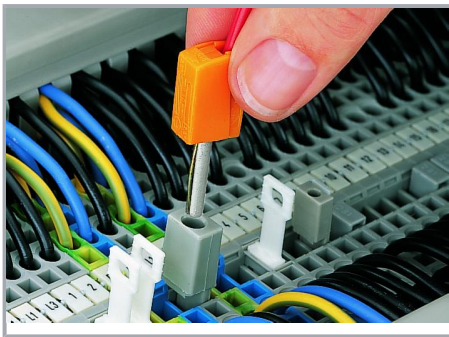
Picture shows a test plug fitted with CAGE CLAMP®.



L-type test plug modules fitted with CAGE CLAMP®

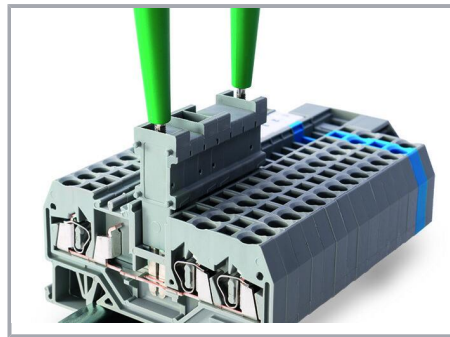


B-type test plug modules fitted with CAGE CLAMP®



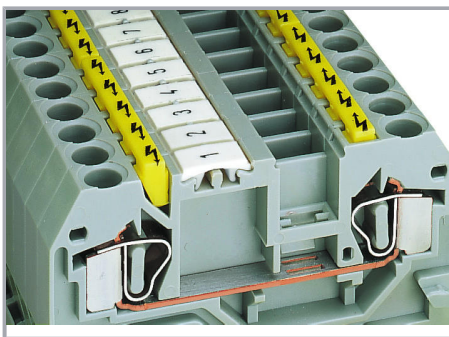
Testing with a test plug.

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



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

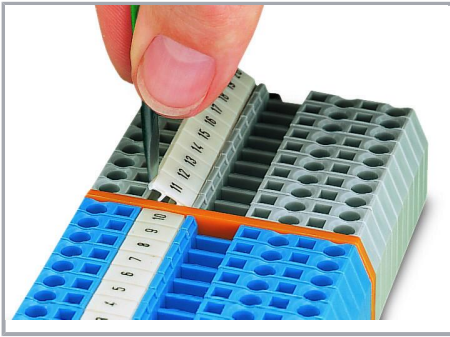
Cover



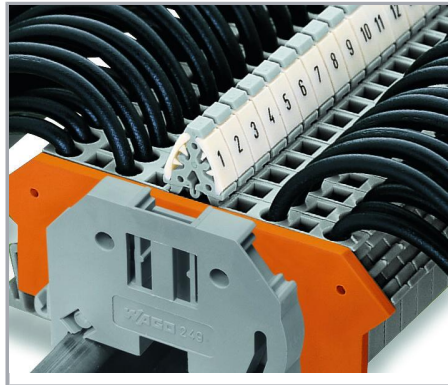
Protective warning markers inserted into the operating slots

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!

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

Do you have any questions about our products?
We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.