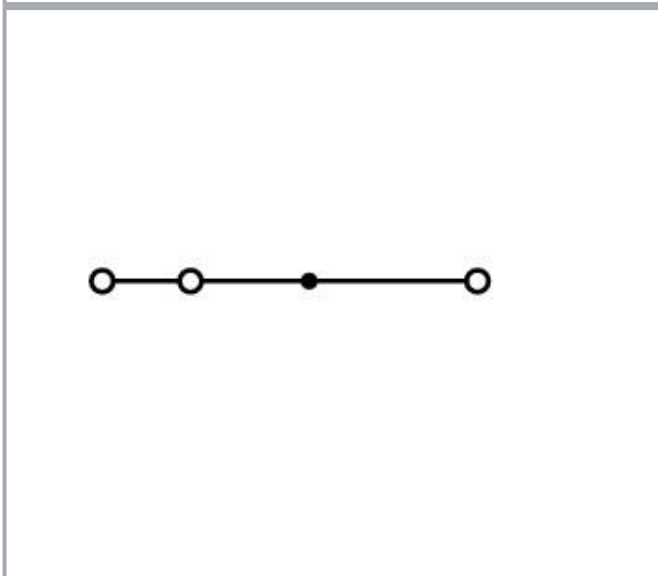
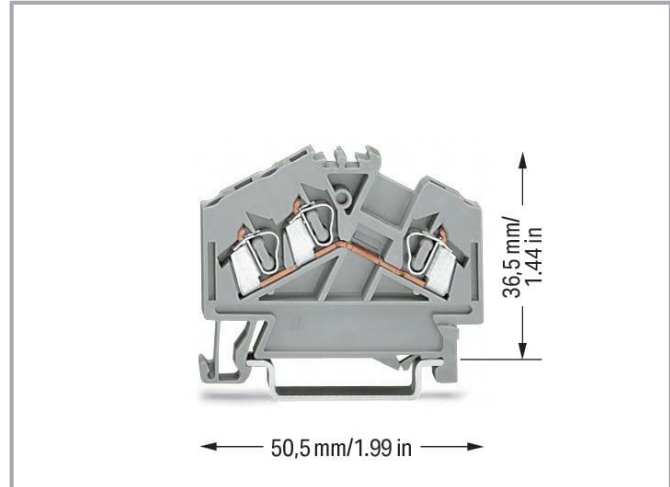


Data sheet | Item number: 280-641

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; gray



www.wago.com/280-641



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

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Data

Electrical data

Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-1
Nominal voltage (III/3)	800 V
Rated impulse voltage (III/3)	8 kV
Rated current	24 A
Legend (ratings)	(III / 3) $\hat{=}$ Overvoltage category III / Pollution degree 3

Power loss

Power loss, per pole (potential)	0.766 W
Rated current I_N for specified power loss	24 A
Resistance value for specified, current-dependent power loss	0.001 Ω

Connection data

Connection points	3
Total number of potentials	1
Number of levels	1

Connection 1

Connection technology	CAGE CLAMP [®]
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum

Connectable conductor materials (note)

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 249-130 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.

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

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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.

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 inches
Wiring direction	Front-entry wiring, angled

Physical data

Width	5 mm / 0.197 inches
Height	50.5 mm / 1.988 inches
Depth from upper-edge of DIN-rail	36.5 mm / 1.437 inches

Mechanical Data

Design	angled
Mounting type	DIN-35 rail
Marking level	Center 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	0.205 MJ
Weight	6.7 g

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

Environmental requirements

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

Commercial data




Product Group	1 (Rail Mounted Terminal Blocks)
eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 8.0	EC000897
ETIM 7.0	EC000897
PU (SPU)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918325806
Customs tariff number	85369010000

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General 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
	UL UL International Germany GmbH	UL 1059	E45172

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
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Subject to changes. Please also observe the further product documentation!

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EU-Declaration of Conformity
WAGO GmbH & Co. KG

-

-







UK-Declaration of Conformity
WAGO GmbH & Co. KG

-

-

Approvals for marine applications

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)

Required accessories

End plate

End plate



Item no.: 280-312
End and intermediate plate; 2.5 mm thick; gray

www.wago.com/280-312



Item no.: 280-318
Separator plate; 2.5 mm thick; oversized; orange

www.wago.com/280-318



Item no.: 280-313
End and intermediate plate; 2.5 mm thick; orange

www.wago.com/280-313

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

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Optional accessories

Marking accessories

Double marker carrier



Item no.: 209-128

Adaptor; gray

www.wago.com/209-128

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

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

Ferrule

Ferrule



Item no.: 216-101

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-101



Item no.: 216-104

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-104



Item no.: 216-102

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-102



Item no.: 216-103

Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

www.wago.com/216-103

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

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	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; light turquoise	www.wago.com/216-302

Mounting

Cover carrier


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

Cover


Item no.: 709-153

Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent

www.wago.com/709-153

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

Push-in type wire jumper

Jumper


Item no.: 249-123

Push-in type wire jumper; 0.75 mm²; insulated; 180 mm long; black

www.wago.com/249-123

Item no.: 249-126

Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; black

www.wago.com/249-126

Item no.: 249-127

Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; black

www.wago.com/249-127

Item no.: 249-125

Push-in type wire jumper; insulated; 60 mm long; black

www.wago.com/249-125

Tool

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

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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

Insulation stop

Insulation stop

	Item no.: 280-472 Insulation stop; 0.75 - 1 mm ² ; 5 pieces/strip; black	www.wago.com/280-472
	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

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
	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

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



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.: 709-110
Wire commoning chain; 2.5 mm²; insulated; black

www.wago.com/709-110



Item no.: 709-112
Wire commoning chain; 2.5 mm²; insulated; black

www.wago.com/709-112



Item no.: 709-111
Wire commoning chain; 2.5 mm²; 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



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

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






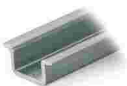

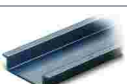


Item no.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored







www.wago.com/210-198

Item no.: 210-504

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





	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
	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

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



	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

Downloads

Documentation

Bid Text

280-641 X81 - Datei	2019 Feb 19	xml 3.4 kB	Download
280-641 doc - Datei	2017 Feb 28	doc 24.6 kB	Download

Additional Information

Technical Section Technical explanations		pdf 2.2 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 280-641		URL	Download
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CAE data

WSCAD Universe 280-641		URL	Download
EPLAN Data Portal 280-641		URL	Download
ZUKEN Portal 280-641		URL	Download

Environmental Product Compliance

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

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Compliance Search

Environmental Product Compliance 280-641

[URL](#)

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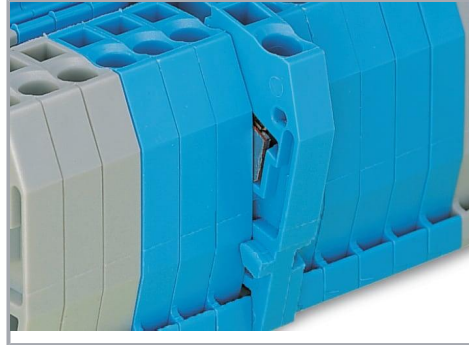
3-conductor through terminal block; 2.5 mm²; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; gray

Installation Notes

Installation



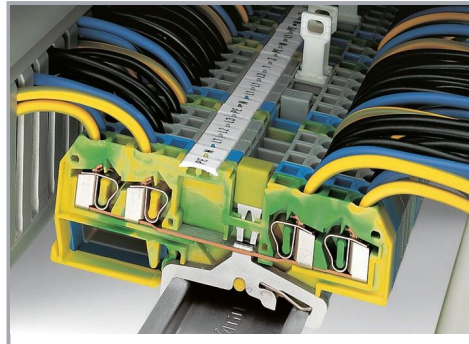
Snapping a terminal block onto the DIN-rail.



Quick assembly keys prevent reverse mounting.



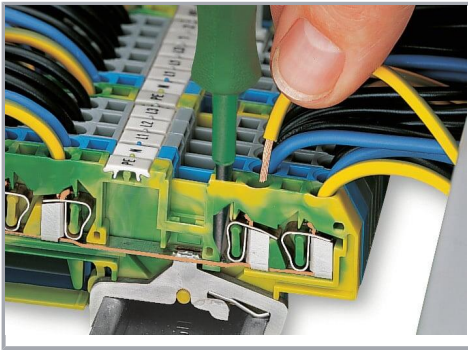
Removing a terminal block from the assembly.



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

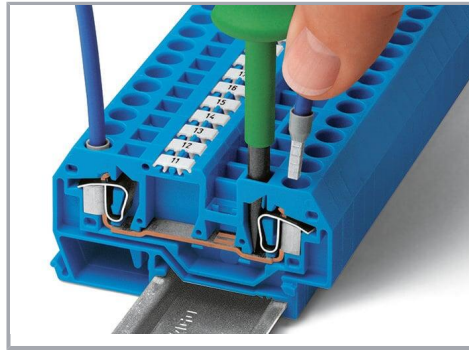
Conductor termination

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



CAGE CLAMP® connection

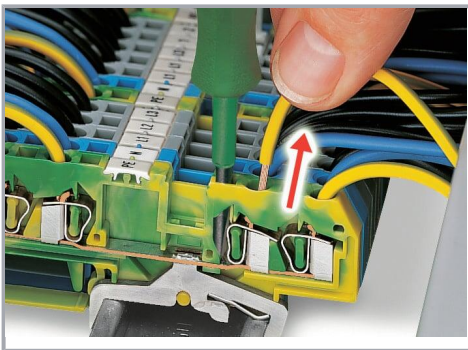
Inserting a conductor.



CAGE CLAMP® connection

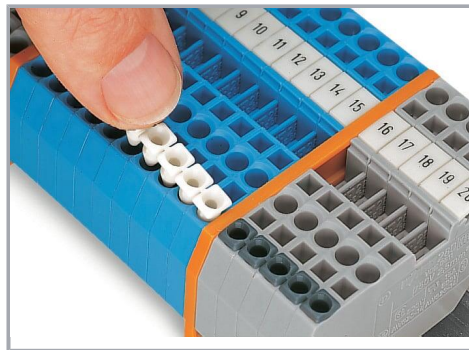
Inserting a conductor.

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



CAGE CLAMP® connection

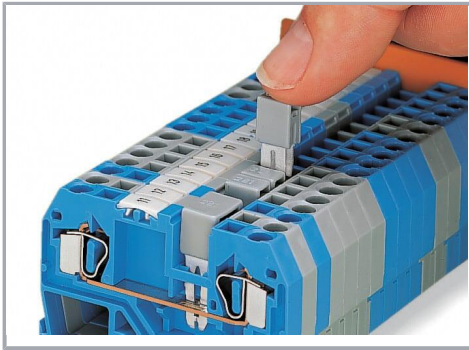
Removing a solid conductor.



Inserting insulation stops.

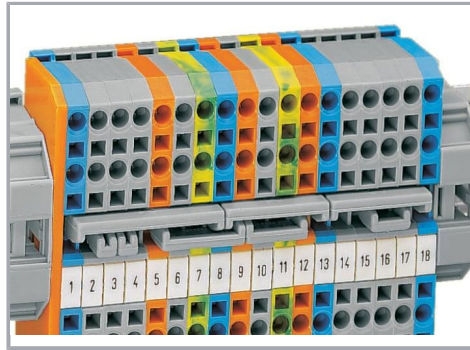
Commoning

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



Commoning using an adjacent jumper.

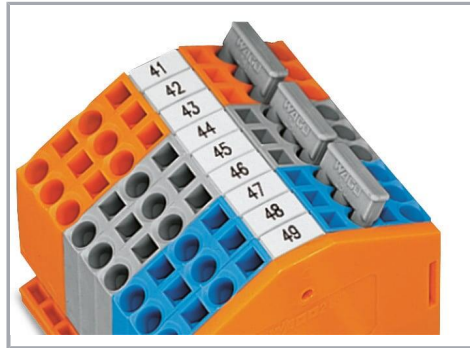
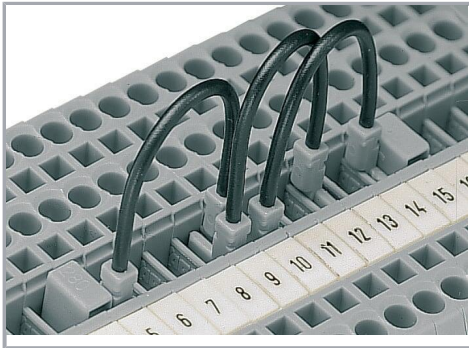
Push jumper down until fully inserted!



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).

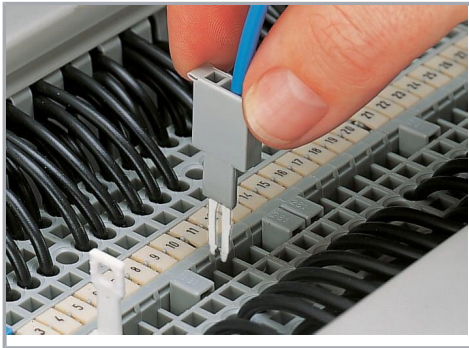
The 280/775/780 and 281/776/777/781 Series Terminal Blocks accept two wire jumpers, allowing the use of commoning chains. Furthermore, the 280/769/775/780 /880 and 281/776/777/781 Series allow both wire jumper and adjacent jumper to be simultaneously plugged into a same terminal block.

Testing

4-conductor through terminal blocks, angled type,

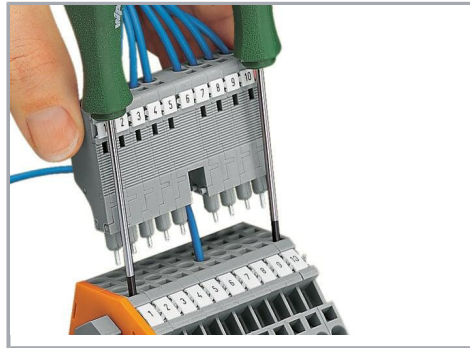
formation of groups with 3-way, comb-style jumper bars

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

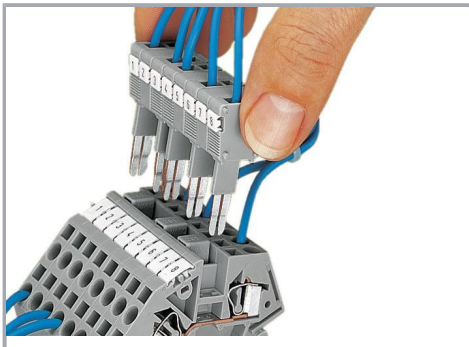


Testing with a test plug.

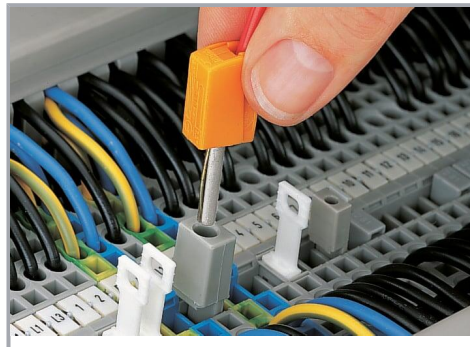
Picture shows a test plug fitted with CAGE CLAMP®.



L-type test plug modules fitted with CAGE CLAMP®



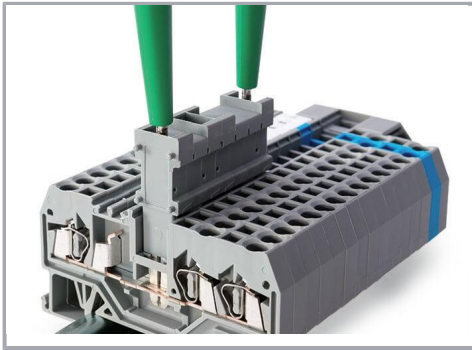
B-type test plug modules fitted with CAGE CLAMP®



Testing with a test plug.

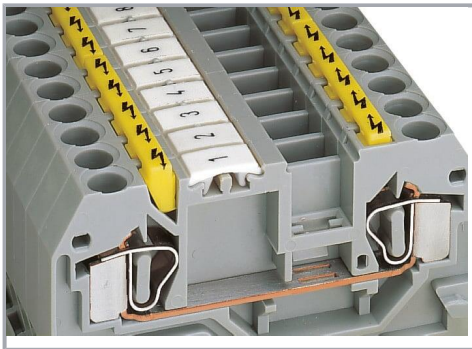
Picture shows a test plug adapter (209-170).

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



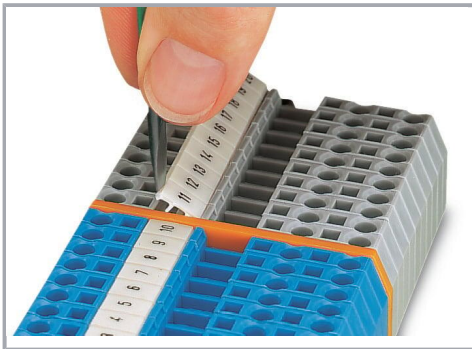
Test plugs modules are directly plugged into the jumper contact slot of the current bar.

Cover



Protective warning markers inserted into the operating slots

Marking



Labeling via WMB Multi Marking System.

Product family

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



Classic

EPSITRON® CLASSIC POWER: The Robust Power Supply – with Integrated TopBoost (Optional)

[Show all products from the family](#)

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

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