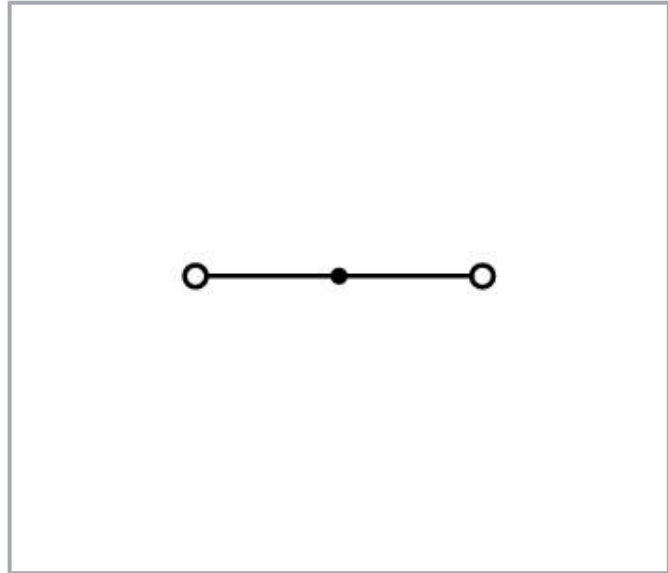


Data sheet | Item number: 280-104

2-conductor through terminal block; 2.5 mm²; suitable for Ex i applications; lateral marker slots; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; blue



www.wago.com/280-104



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) ≙ Overvoltage category III / Pollution degree 3

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

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Ratings per UL 1059

Approvals per	UL 1059
Rated voltage UL (Use Group C)	600 V
Rated current UL (Use Group C)	20 A

Ratings per CSA

Approvals per	CSA 22.2 No 158
Rated voltage CSA (Use Group C)	600 V
Rated current CSA (Use Group C)	20 A

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	2
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:

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



- 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.

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	Side-entry wiring

Physical data

Width	5 mm / 0.197 inches
Height	42.5 mm / 1.673 inches
Depth from upper-edge of DIN-rail	30.5 mm / 1.201 inches

Mechanical Data

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

Material Data

Note (material data)

[Information on material specifications can be found here](#)

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

Color	blue
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.083 MJ
Weight	3.9 g

Environmental requirements

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

Commercial data



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	IN
GTIN	4045454044503
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 1059	E45172

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







UL International Germany GmbH

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	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

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Item no.: 280-302
End and intermediate plate; 2.5 mm thick; orange

www.wago.com/280-302



Item no.: 280-301
End and intermediate plate; 2.5 mm thick; gray

www.wago.com/280-301

Optional accessories

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

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

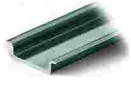
Item no.: 210-508

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



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

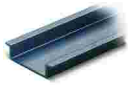
www.wago.com/210-114



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

Marking accessories

Marker



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

www.wago.com/2009-115/000-002



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

www.wago.com/2009-115/000-007



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

www.wago.com/2009-115/000-017



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

www.wago.com/2009-115/000-023



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

www.wago.com/2009-115/000-024



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

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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

www.wago.com/793-5501/000-007



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

www.wago.com/793-5501/000-012



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

www.wago.com/793-5501/000-017



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

www.wago.com/793-5501/000-023



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

www.wago.com/793-5501/000-024



Item no.: 793-501/000-002

WMB marking card; as card; not stretchable; plain; snap-on type; yellow

www.wago.com/793-501/000-002



Item no.: 793-501/000-007

WMB marking card; as card; not stretchable; plain; snap-on type; gray

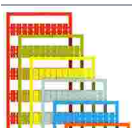
www.wago.com/793-501/000-007



Item no.: 793-501/000-017

WMB marking card; as card; not stretchable; plain; snap-on type; light green

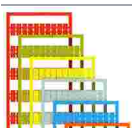
www.wago.com/793-501/000-017



Item no.: 793-501/000-012

WMB marking card; as card; not stretchable; plain; snap-on type; orange

www.wago.com/793-501/000-012



Item no.: 793-501/000-023

WMB marking card; as card; not stretchable; plain; snap-on type; green

www.wago.com/793-501/000-023

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

www.wago.com/793-501/000-006



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

www.wago.com/793-501/000-005



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

www.wago.com/793-501



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

www.wago.com/793-501/000-024



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

www.wago.com/793-5501/000-005



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

www.wago.com/793-5501/000-002



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

www.wago.com/793-5501/000-006



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



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

www.wago.com/2009-115/000-012



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

www.wago.com/2009-115/000-006

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

www.wago.com/209-140

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

Group marker carrier; gray



Item no.: 249-105
Group marker carrier; gray

www.wago.com/249-105

End plate

End plate



Item no.: 281-333
Step-down intermediate plate; 1 mm thick; "only for 4 mm terminal blocks; gray

www.wago.com/281-333

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

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 mm² - 10 mm² tbs; gray

www.wago.com/209-170



Item no.: 281-407
Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm² - 2.5 mm²; 2,50 mm²; gray

www.wago.com/281-407



Item no.: 280-404
Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm² - 4 mm² tbs; gray

www.wago.com/280-404

Tool

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

Jumpers

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

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.: 280-409**

Jumper; insulated; gray

www.wago.com/280-409**Item no.: 280-422**

Jumper; insulated; yellow-green

www.wago.com/280-422**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 mm²; insulated; blackwww.wago.com/709-110**Item no.: 709-112**Wire commoning chain; 2.5 mm²; insulated; blackwww.wago.com/709-112**Item no.: 709-111**Wire commoning chain; 2.5 mm²; insulated; blackwww.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

Protective warning marker

Cover

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

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**Item no.: 280-405**

Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

www.wago.com/280-405**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

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**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 mm² / AWG 22; uninsulated; electro-tin plated; silver-coloredwww.wago.com/216-101**Item no.: 216-104**Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-coloredwww.wago.com/216-104

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

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

Downloads

Documentation

Bid Text

280-104 X81 - Datei	2019 Feb 19	xml 3.4 kB	Download
280-104 doc - Datei	2017 May 31	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 280-104	URL	Download
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CAE data

EPLAN Data Portal 280-104

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

	URL	Download
WSCAD Universe 280-104	URL	Download
ZUKEN Portal 280-104	URL	Download

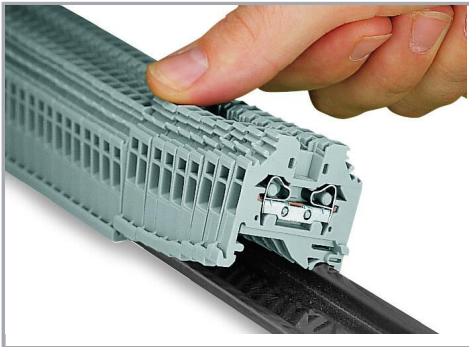
Environmental Product Compliance

Compliance Search

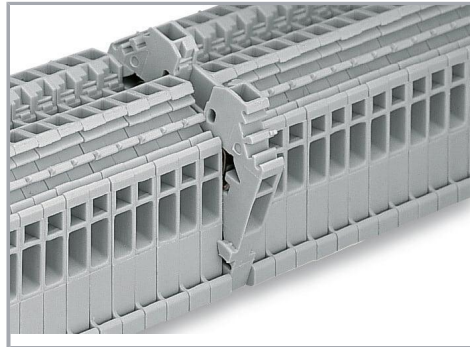
Environmental Product Compliance 280-104	URL	Download
2-conductor through terminal block; 2.5 mm ² ; suitable for Ex i applications; lateral marker slots; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm ² ; blue		

Installation Notes

Installation

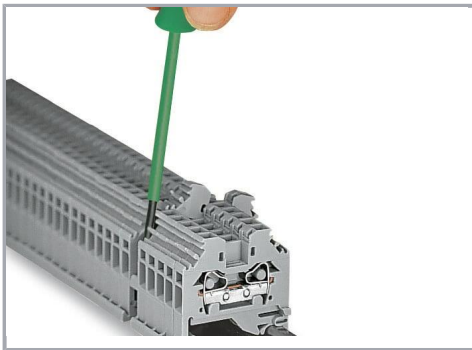


Snapping side-entry rail-mount terminal blocks onto the DIN-rail.



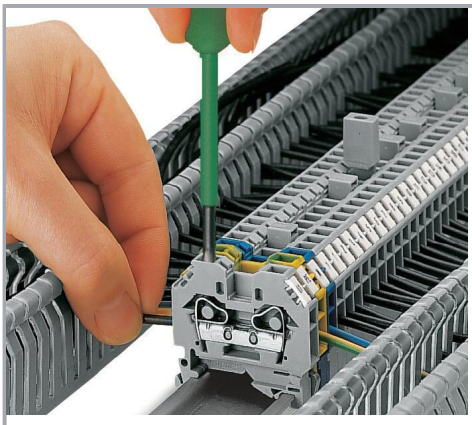
Quick assembly keys prevent reverse mounting.

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



Removing a terminal block from the assembly.

Conductor termination



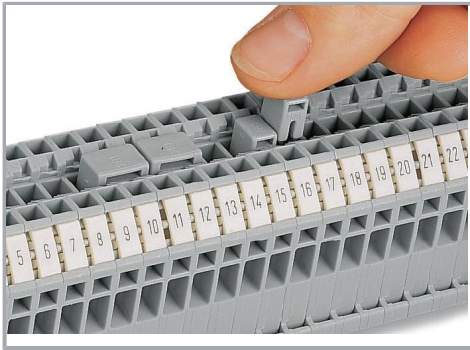
CAGE CLAMP® connection

Inserting a conductor.

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

Commoning

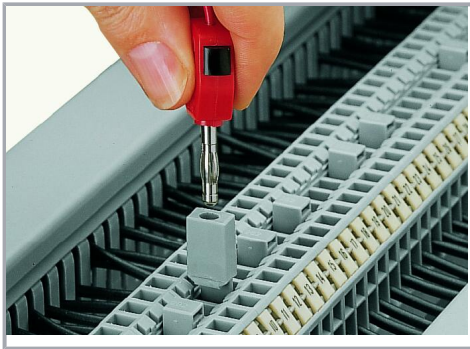
Subject to changes. Please also observe the further product documentation!



Commoning using an adjacent jumper (280-402).

Push jumper down until fully inserted.

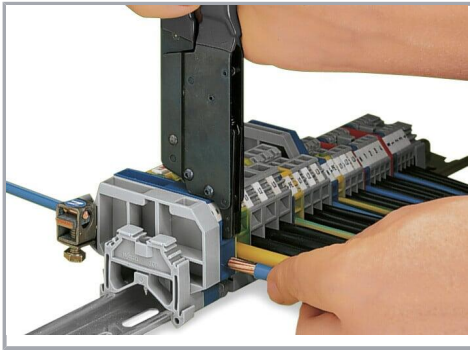
Testing



Testing with a test plug.

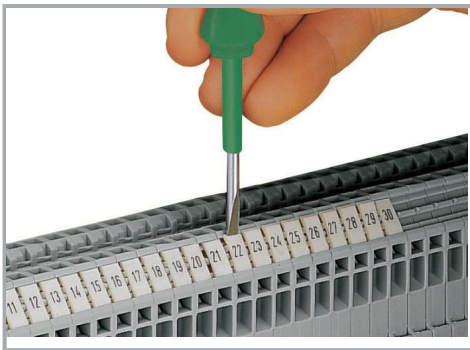
Picture shows a test plug adapter (209-170).

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



When operating the handles beyond the locked position, the ratchet allows the tool to open and be removed from the terminal block.

Marking



Labeling via WMB Multi Marking System.

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