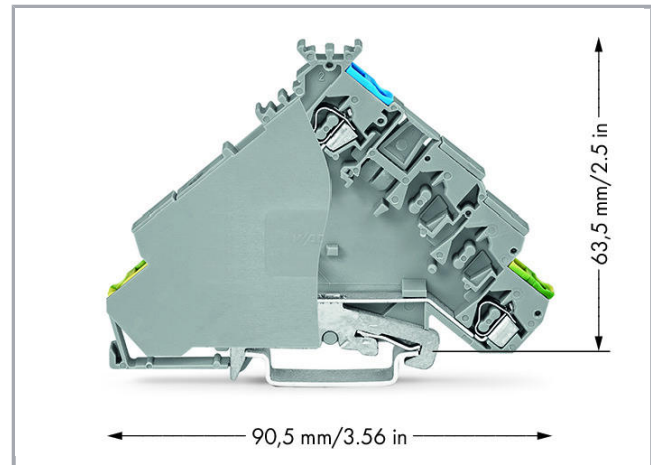
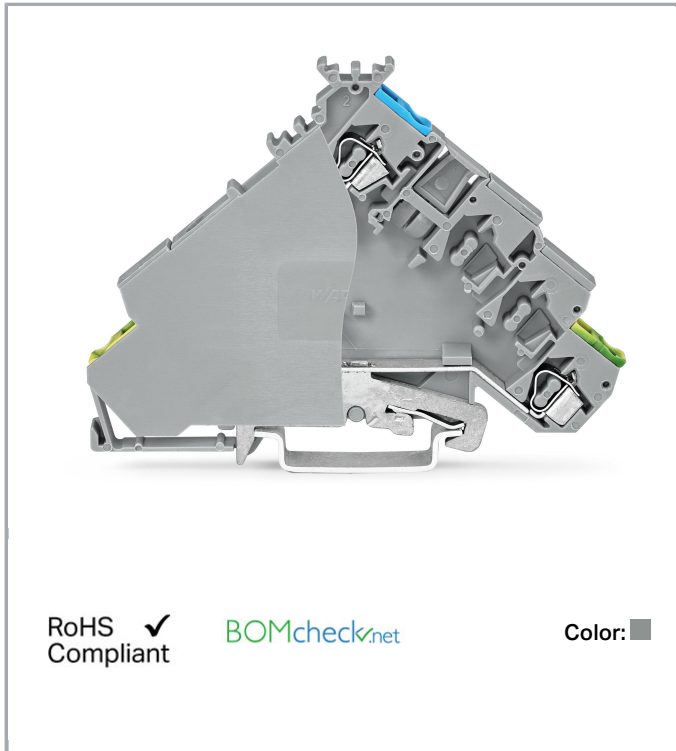


Data sheet | Item number: 280-578

3-conductor sensor/actuator terminal block; with colored conductor entries;
2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

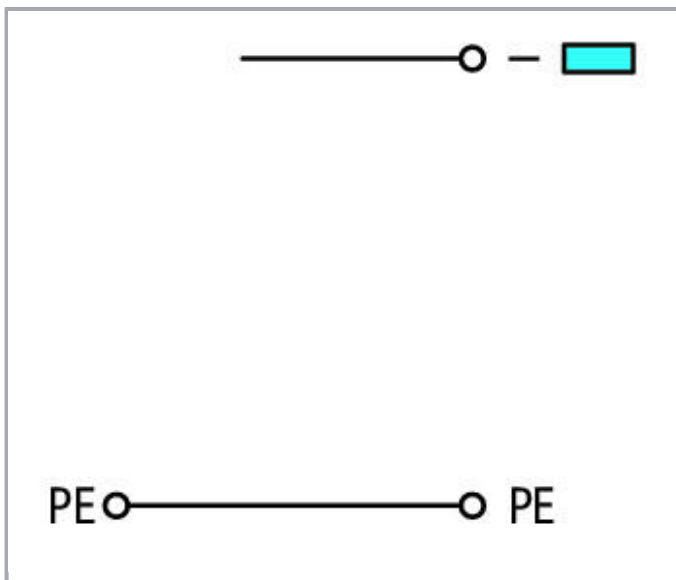
www.wago.com/280-578



RoHS
Compliant

BOMcheck.net

Color: ■



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

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Item description

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 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.

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

Data

Electrical data

Ratings per IEC/EN 60664-1

Nominal voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV
Rated current	20 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 Aluminum
Solid conductor	0,08 ... 2,5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0,08 ... 2,5 mm ² / 28 ... 12 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch

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Total number of connection points	3
Total number of potentials	2
Number of levels	4
Wiring type	Front-entry wiring
Note (conductor cross-section)	12 AWG: THHN, THWN

Geometrical Data

Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	63,5 mm / 2.5 inch
Depth	90,5 mm / 3.563 inch

Mechanical data

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

Material Data

Color	gray
Insulation material	Polyamide 66 (PA 66)
Fire load	0.339 MJ
Weight	16.6 g

Commercial data

Product Group	1 (Rail Mounted Terminal Blocks)
Packaging type	BOX
Country of origin	DE
GTIN	4045454093907
Customs tariff number	85369010000

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	2160584.53

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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
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UR Underwriters Laboratories Inc.	UL 1059	20190731- E45172

Counterpart

Compatible products

Insulation stop

	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

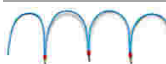
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**Item no.: 280-472**Insulation stop; 0.75 - 1 mm²; 5 pieces/stripwww.wago.com/280-472**Jumper****Item no.: 210-103**

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**

Adjacent jumper; insulated; IN = IN terminal block; gray

www.wago.com/280-402**Item no.: 280-482**

Comb-style jumper bar; insulated; 2-way; IN = IN terminal block; gray

www.wago.com/280-482**Item no.: 280-483**

Comb-style jumper bar; insulated; 3-way; IN = IN terminal block; gray

www.wago.com/280-483**Item no.: 280-484**

Comb-style jumper bar; insulated; 4-way; IN = IN terminal block; gray

www.wago.com/280-484**Item no.: 280-485**

Comb-style jumper bar; insulated; 5-way; IN = IN terminal block; gray

www.wago.com/280-485**Item no.: 280-490**

Comb-style jumper bar; insulated; 10-way; IN = IN terminal block; gray

www.wago.com/280-490**Item no.: 280-492**

Alternate comb-style jumper bar; insulated; 2-way; IN = IN terminal block; gray

www.wago.com/280-492**Item no.: 709-110**Wire commoning chain; 2.5 mm²; insulated; blackwww.wago.com/709-110**Item no.: 709-111**Wire commoning chain; 2.5 mm²; insulated; blackwww.wago.com/709-111**Item no.: 709-112**Wire commoning chain; 2.5 mm²; insulated; blackwww.wago.com/709-112**Item no.: 780-452**

Staggered jumper; insulated; from 1 to 2; Spacing: 5 mm; suitable for 2-conductor female plugs; gray

www.wago.com/780-452**Item no.: 780-453**

Staggered jumper; insulated; from 1 to 3; Spacing: 5 mm; suitable for 2-conductor female plugs; gray

www.wago.com/780-453**Item no.: 780-454**

Staggered jumper; insulated; from 1 to 4; Spacing: 5 mm; suitable for 2-conductor female plugs; gray

www.wago.com/780-454**Item no.: 780-455**

Staggered jumper; insulated; from 1 to 5; Spacing: 5 mm; suitable for 2-conductor female plugs; gray

www.wago.com/780-455**Item no.: 780-456**

Staggered jumper; insulated; from 1 to 6; Spacing: 5 mm; suitable for 2-conductor female plugs; gray

www.wago.com/780-456

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

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**Item no.: 780-457**

Staggered jumper; insulated; from 1 to 7; Spacing: 5 mm; suitable for 2-conductor female plugs; gray

www.wago.com/780-457**Item no.: 780-458**

Staggered jumper; insulated; from 1 to 8; Spacing: 5 mm; suitable for 2-conductor female plugs; gray

www.wago.com/780-458**assembling****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.: 709-154**

Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent

www.wago.com/709-154**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.: 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.: 2009-115/000-006**

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**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.: 2009-115/000-012**

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.: 2009-115/000-017**

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.: 793-501**

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

www.wago.com/793-501**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

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

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**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.: 793-501/000-006**

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

www.wago.com/793-501/000-006**Item no.: 793-501/000-007**

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

www.wago.com/793-501/000-007**Item no.: 793-501/000-012**

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

www.wago.com/793-501/000-012**Item no.: 793-501/000-017**

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

www.wago.com/793-501/000-017**Item no.: 793-501/000-023**

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

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

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.: 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.: 793-5501/000-005**

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.: 793-5501/000-006**

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.: 793-5501/000-007**

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**

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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/793-5501/000-017



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; light 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

Protective Warning Marker



Item no.: 280-415

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

www.wago.com/280-415

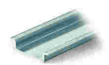
Carrier rail



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

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

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

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

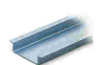
www.wago.com/210-115



Item no.: 210-118

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

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



Item no.: 210-197

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715

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

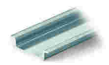
www.wago.com/210-198



Item no.: 210-504

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715

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

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

www.wago.com/210-506

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

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**Item no.: 210-508**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715

www.wago.com/210-508**tools****Item no.: 210-657**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short

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

www.wago.com/210-658**Item no.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft

www.wago.com/210-720**ferrule****Item no.: 216-101**Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin platedwww.wago.com/216-101**Item no.: 216-102**Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin platedwww.wago.com/216-102**Item no.: 216-103**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin platedwww.wago.com/216-103**Item no.: 216-104**Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin platedwww.wago.com/216-104**Item no.: 216-201**Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; whitewww.wago.com/216-201**Item no.: 216-202**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; graywww.wago.com/216-202**Item no.: 216-203**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; redwww.wago.com/216-203**Item no.: 216-204**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; blackwww.wago.com/216-204**Item no.: 216-301**Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellowwww.wago.com/216-301**Item no.: 216-302**Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; greenwww.wago.com/216-302**Push-In type wire jumper****Item no.: 249-123**Push-in type wire jumper; 0.75 mm²; insulated; 180 mm long; blackwww.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 mm²; insulated; 110 mm long; blackwww.wago.com/249-126

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

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Item no.: 249-127

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

www.wago.com/249-127

Downloads

Documentation

Bid Text

280-578	Feb 19, 2019	xml	Download
GAEB X81 - Datei		3.4 kB	

280-578	Apr 3, 2017	doc	Download
doc - Datei		26.1 kB	

CAD/CAE-Data

CAD data

2D/3D Models 280-578	URL	Download
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CAE data

EPLAN Data Portal 280-578	URL	Download
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WSCAD Universe 280-578	URL	Download
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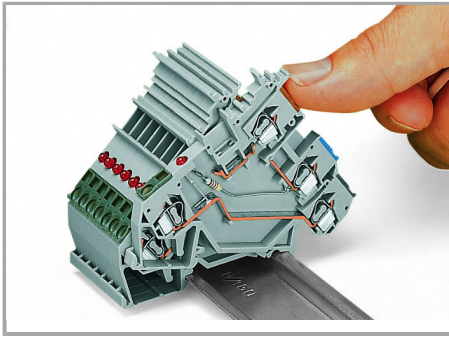
Installation Notes

Installation

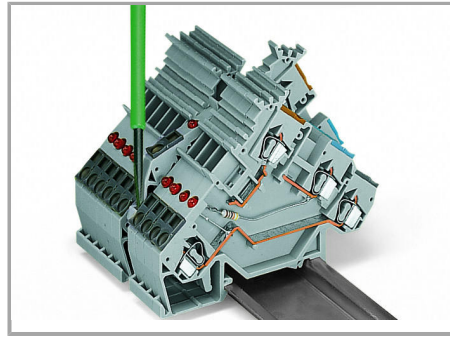
Subject to changes. Please also observe the further product documentation!

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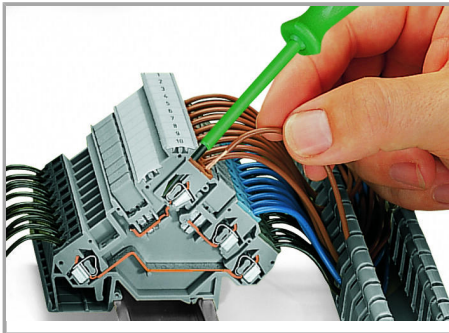


Snapping a terminal block onto the carrier rail – terminal blocks with a grounding foot automatically establish a direct contact to the rail.

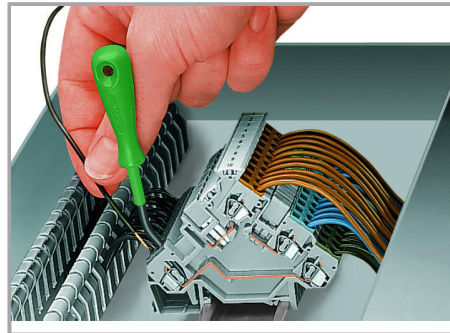


Removing a terminal block from the carrier rail. Notice: Remove jumper contacts first.

Conductor termination



CAGE CLAMP® connection



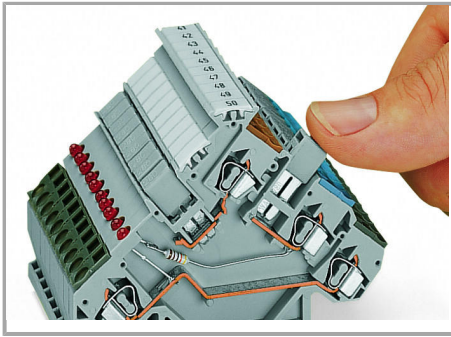
CAGE CLAMP® connection

Inserting a conductor via straight operating tool (210-720).

Inserting a conductor via angled operating tool (210-658).

Commoning

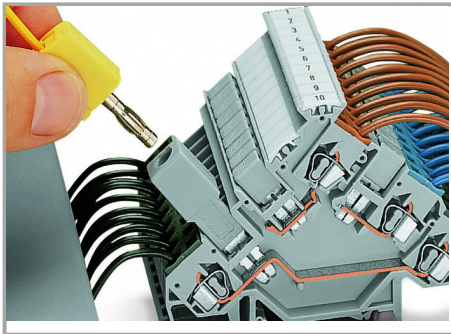
Subject to changes. Please also observe the further product documentation!



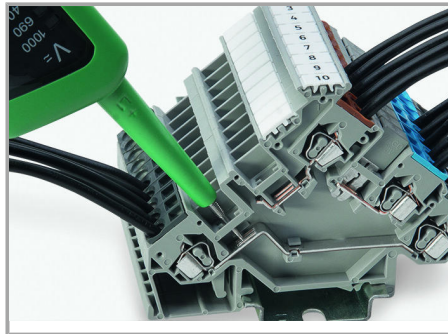
Commoning using an adjacent jumper (280-402).

Push jumper down until fully inserted.

Testing



Testing via banana plug and test plug adapter (209-170).



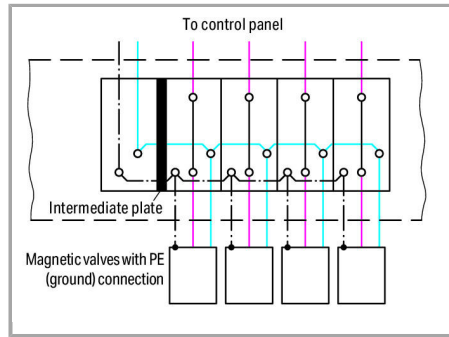
Testing via voltage tester directly on the current bar.

Application

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



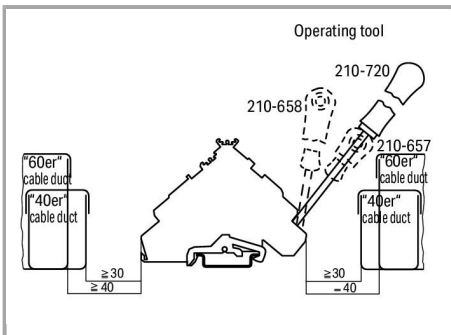
Terminal block assembly:



Power supply from control panel side

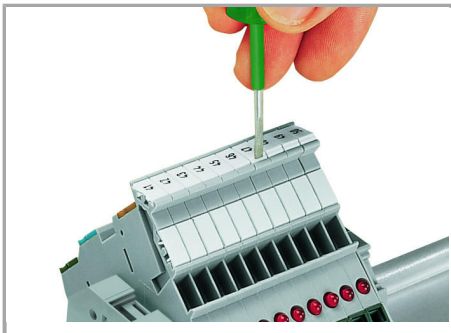
Actuator terminal blocks

Installation



Min. mounting distance – terminal blocks to cable duct

Marking



Labeling via WMB Multi Marking System.

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