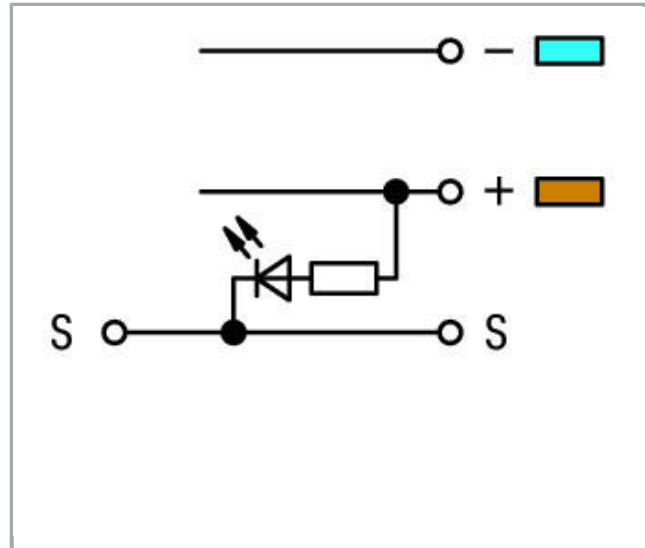
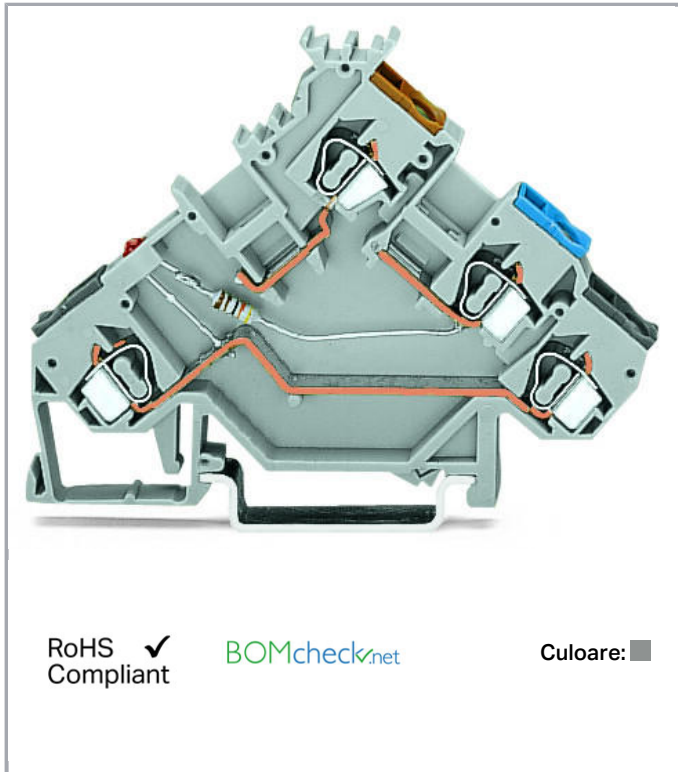


Fișă tehnică | Număr articol: 280-561/281-413

3-conductor sensor terminal block; LED (red); for NPN-(low-side) switching sensors; with colored conductor entries; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray



www.wago.com/280-561/281-413



Descriere articol

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.**

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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 (14 AWG) = 16 A

4 mm² (12 AWG) = 22 A

Safety information 1:

LED power consumption: 4.8mA

Date

Electrical data

Voltage type 1	DC
Nominal voltage	24 V

Ratings per IEC/EN 60664-1

Rated current	20 A
---------------	------

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

Geometrical Data

Width	5 mm / 0.197 inch
Height from upper-edge of DIN-rail	55.5 mm / 2.185 inch
Depth	80 mm / 3.15 inch

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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	0,174 MJ
Weight	10,5 g

Commercial data



Product Group	1 (Rail Mounted Terminal Blocks)
Packaging type	BOX
Country of origin	DE
GTIN	4045454299262
Customs tariff number	85369010000

Aprobări / certificate

Country specific Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	CCA DEKRA Certification B.V.	EN 60947	2160584.53

Ship Approvals


Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	ABS American Bureau of Shipping	EN 60947	20- HG1941090- PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

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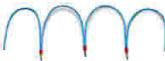






UL-Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	UR Underwriters Laboratories Inc.	UL 1059	20190731- E45172

Counterpart

Produse compatibile



















Jumper

	Nr. articol: 210-103 Wire commoning chain; insulated; 50 connections; black	www.wago.com/210-103
	Nr. articol: 210-123 Wire commoning chain; insulated; 50 connections	www.wago.com/210-123
	Nr. articol: 249-123 Push-in type wire jumper; insulated; wire length 180 mm; Conductor cross section 0.75 mm ²	www.wago.com/249-123
	Nr. articol: 249-125 Push-in type wire jumper; insulated; wire length 60 mm; Conductor cross section 0.75 mm ²	www.wago.com/249-125
	Nr. articol: 249-126 Push-in type wire jumper; insulated; wire length 110 mm; Conductor cross section 0.75 mm ²	www.wago.com/249-126
	Nr. articol: 249-127 Push-in type wire jumper; insulated; wire length 250 mm; Conductor cross section 0.75 mm ²	www.wago.com/249-127
	Nr. articol: 280-402 Adjacent jumper; insulated; IN = IN terminal block; gray	www.wago.com/280-402
	Nr. articol: 280-482 Comb-style jumper bar; insulated; 2-way; IN = IN terminal block; gray	www.wago.com/280-482

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
Aveți întrebări despre produsele noastre?
 Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.

	Nr. articol: 280-483 Comb-style jumper bar; insulated; 3-way; IN = IN terminal block; gray	www.wago.com/280-483
	Nr. articol: 280-484 Comb-style jumper bar; insulated; 4-way; IN = IN terminal block; gray	www.wago.com/280-484
	Nr. articol: 280-485 Comb-style jumper bar; insulated; 5-way; IN = IN terminal block; gray	www.wago.com/280-485
	Nr. articol: 280-490 Comb-style jumper bar; insulated; 10-way; IN = IN terminal block; gray	www.wago.com/280-490
	Nr. articol: 280-492 Alternate comb-style jumper bar; insulated; 2-way; IN = IN terminal block; gray	www.wago.com/280-492
	Nr. articol: 709-110 Wire commoning chain; insulated; 4 connections; 3 x 110 mm; black	www.wago.com/709-110
	Nr. articol: 709-111 Wire commoning chain; insulated; 3 connections; 2 x 120 mm; black	www.wago.com/709-111
	Nr. articol: 709-112 Wire commoning chain; insulated; 3 connections; 2 x 170 mm; black	www.wago.com/709-112
	Nr. articol: 780-452 Staggered jumper; insulated; from 1 to 2; Spacing: 5 mm; suitable for 2-conductor female plugs; gray	www.wago.com/780-452
	Nr. articol: 780-453 Staggered jumper; insulated; from 1 to 3; Spacing: 5 mm; suitable for 2-conductor female plugs; gray	www.wago.com/780-453
	Nr. articol: 780-454 Staggered jumper; insulated; from 1 to 4; Spacing: 5 mm; suitable for 2-conductor female plugs; gray	www.wago.com/780-454
	Nr. articol: 780-455 Staggered jumper; insulated; from 1 to 5; Spacing: 5 mm; suitable for 2-conductor female plugs; gray	www.wago.com/780-455
	Nr. articol: 780-456 Staggered jumper; insulated; from 1 to 6; Spacing: 5 mm; suitable for 2-conductor female plugs; gray	www.wago.com/780-456
	Nr. articol: 780-457 Staggered jumper; insulated; from 1 to 7; Spacing: 5 mm; suitable for 2-conductor female plugs; gray	www.wago.com/780-457
	Nr. articol: 780-458 Staggered jumper; insulated; from 1 to 8; Spacing: 5 mm; suitable for 2-conductor female plugs; gray	www.wago.com/780-458
ferrule		
	Nr. articol: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated	www.wago.com/216-101
	Nr. articol: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated	www.wago.com/216-102
	Nr. articol: 216-103 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-103

















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	Nr. articol: 216-104 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated	www.wago.com/216-104
	Nr. articol: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	Nr. articol: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Nr. articol: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Nr. articol: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	Nr. articol: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Nr. articol: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-302
tools		
	Nr. articol: 210-657 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short	www.wago.com/210-657
	Nr. articol: 210-658 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short	www.wago.com/210-658
	Nr. articol: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft	www.wago.com/210-720
assembling		
	Nr. articol: 709-154 Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent	www.wago.com/709-154
End plate		
	Nr. articol: 280-319 End and intermediate plate; 1 mm thick; for triple-deck terminal blocks; gray	www.wago.com/280-319
	Nr. articol: 280-321 End and intermediate plate; 1 mm thick; for triple-deck terminal blocks; orange	www.wago.com/280-321
Protective Warning Marker		
	Nr. articol: 280-415 Protective warning marker; with high-voltage symbol, black; for 5 terminal blocks; yellow	www.wago.com/280-415
Carrier rail		
	Nr. articol: 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
	Nr. articol: 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















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	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
Insulation stop		
	Nr. articol: 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
	Nr. articol: 280-471 Insulation stop; 0.25 - 0.5 mm ² ; 5 pieces/strip; light gray	www.wago.com/280-471
	Nr. articol: 280-472 Insulation stop; 0.75 - 1 mm ² ; 5 pieces/strip	www.wago.com/280-472
Marking accessories		
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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

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	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white	www.wago.com/793-501
	Nr. articol: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type; yellow	www.wago.com/793-501/000-002
	Nr. articol: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type; red	www.wago.com/793-501/000-005
	Nr. articol: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type; blue	www.wago.com/793-501/000-006
	Nr. articol: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type; gray	www.wago.com/793-501/000-007
	Nr. articol: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type; orange	www.wago.com/793-501/000-012
	Nr. articol: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type; light green	www.wago.com/793-501/000-017
	Nr. articol: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type; green	www.wago.com/793-501/000-023
	Nr. articol: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type; violet	www.wago.com/793-501/000-024

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	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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; green	www.wago.com/793-5501/000-017
	Nr. articol: 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
	Nr. articol: 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

Descărcări Documentation

Additional Information

Technical explanations	Apr 3, 2019	pdf 2,1 MB	Descărcare
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CAD/CAE-Data

CAD data

2D/3D Models 280-561/281-413	URL	Descărcare
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CAE data

EPLAN Data Portal 280-561/281-413

URL

Descărcare

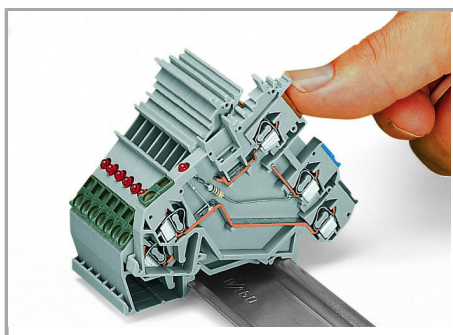
WSCAD Universe 280-561/281-413

URL

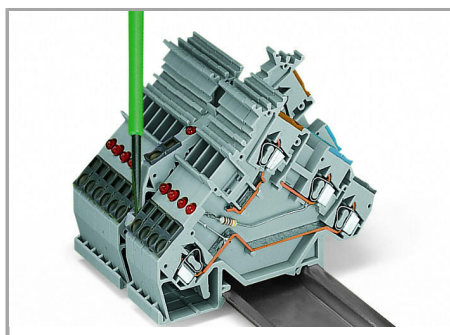
Descărcare

Installation Notes

Installation

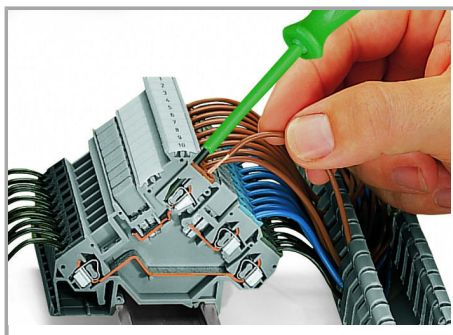


Snapping a terminal block onto the carrier rail – terminal blocks with a grounding foot automatically establish a direct contact to the rail.



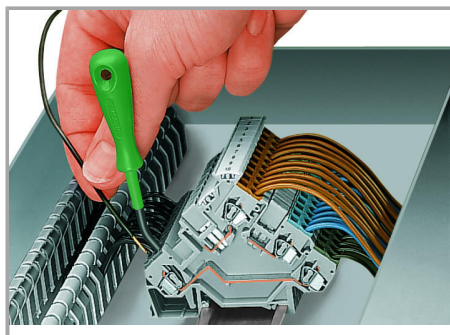
Removing a terminal block from the carrier rail. Notice: Remove jumper contacts first.

Conductor termination



CAGE CLAMP® connection

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

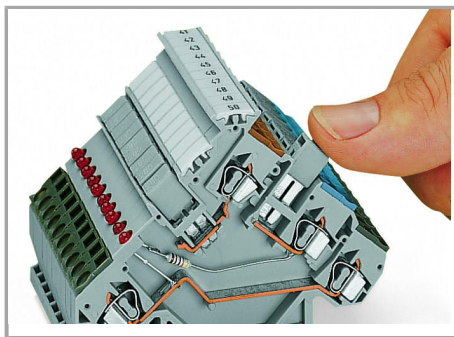


CAGE CLAMP® connection

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

Commoning

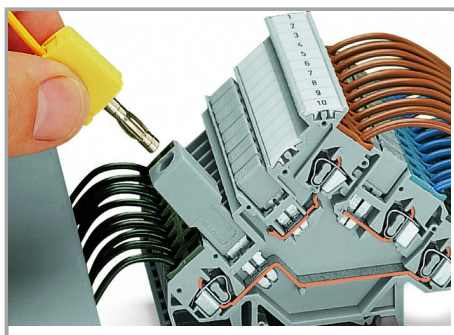
Supus modificărilor.



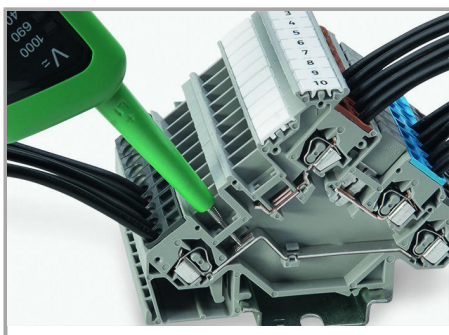
Commoning using an adjacent jumper (280-402).

Push jumper down until fully inserted.

Testing



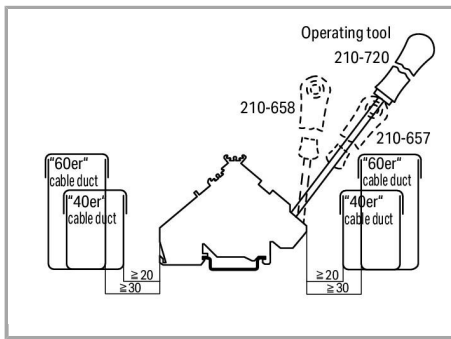
Testing via banana plug and test plug adapter (209-170).



Testing via voltage tester directly on the current bar.

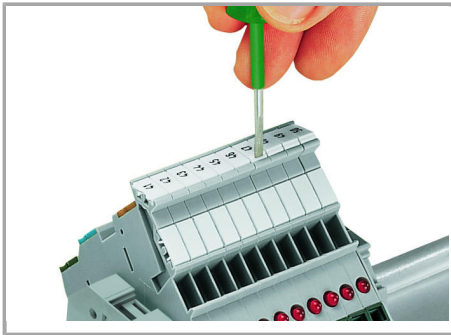
Installation

Supus modificărilor.



Min. mounting distance – terminal blocks to cable duct

Marking



Labeling via WMB Multi Marking System.

Supus modificărilor.