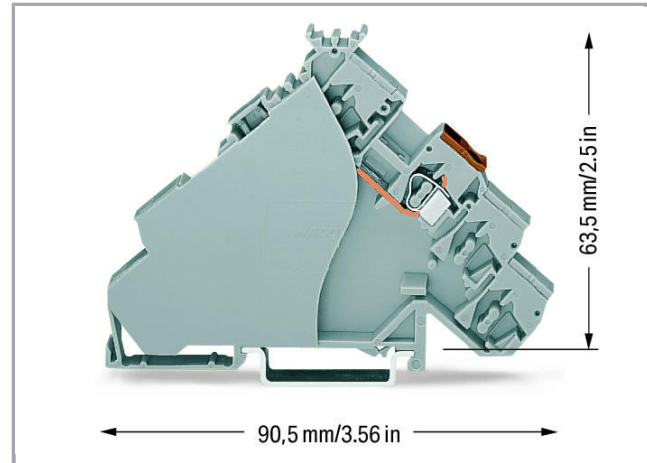


Data sheet | Item number: 280-515

Actuator supply terminal block; Power supply from control panel side; with colored conductor entries; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray

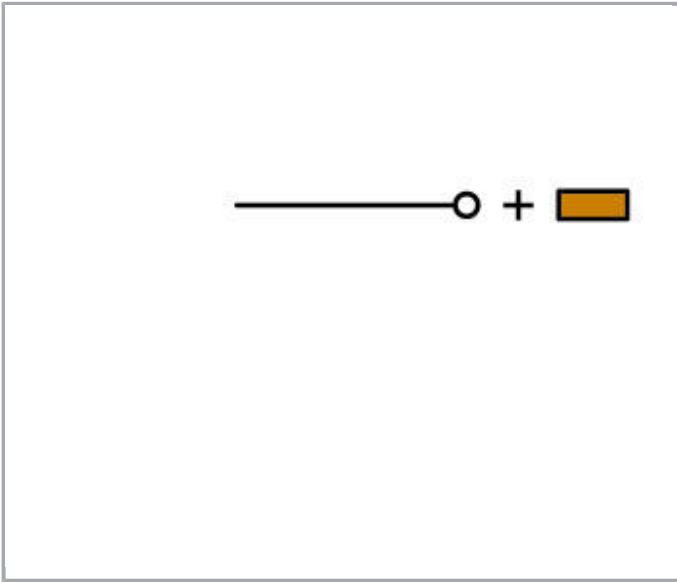
www.wago.com/280-515



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

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Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



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

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



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) $\hat{=}$ 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
Total number of connection points	1
Total number of potentials	1
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	0.354 MJ
Weight	12.7 g


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

Commercial data


Product Group	1 (Rail Mounted Terminal Blocks)
Packaging type	BOX
Country of origin	DE
GTIN	4044918637121
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

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













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Compatible products

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
	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

Insulation stop

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



Item no.: 280-470
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white

www.wago.com/280-470



Item no.: 280-471
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray

www.wago.com/280-471



Item no.: 280-472
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip

www.wago.com/280-472

Push-In type wire 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.: 249-125
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; 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

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

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

	<p>Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white</p>	www.wago.com/793-501
	<p>Item no.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type; yellow</p>	www.wago.com/793-501/000-002
	<p>Item no.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type; red</p>	www.wago.com/793-501/000-005
	<p>Item no.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type; blue</p>	www.wago.com/793-501/000-006
	<p>Item no.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type; gray</p>	www.wago.com/793-501/000-007
	<p>Item no.: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type; orange</p>	www.wago.com/793-501/000-012
	<p>Item no.: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type; light green</p>	www.wago.com/793-501/000-017
	<p>Item no.: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type; green</p>	www.wago.com/793-501/000-023
	<p>Item no.: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type; violet</p>	www.wago.com/793-501/000-024
	<p>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</p>	www.wago.com/793-5501
	<p>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</p>	www.wago.com/793-5501/000-002
	<p>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</p>	www.wago.com/793-5501/000-005
	<p>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</p>	www.wago.com/793-5501/000-006
	<p>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</p>	www.wago.com/793-5501/000-007

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

**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; green

www.wago.com/793-5501/000-017**Item no.: 793-5501/000-023**

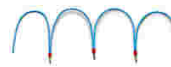
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green

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**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

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

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	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
	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



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
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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







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

ferrule

	Item no.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated	www.wago.com/216-101
	Item no.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated	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

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

	Item no.: 216-104 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated	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

Downloads

Documentation

Bid Text

280-515 GAEB X81 - Datei	Feb 19, 2019	xml 3.6 kB	Download
280-515 doc - Datei	Apr 3, 2017	doc 26.1 kB	Download

CAD/CAE-Data

CAE data

EPLAN Data Portal 280-515	URL	Download
WSCAD Universe 280-515	URL	Download

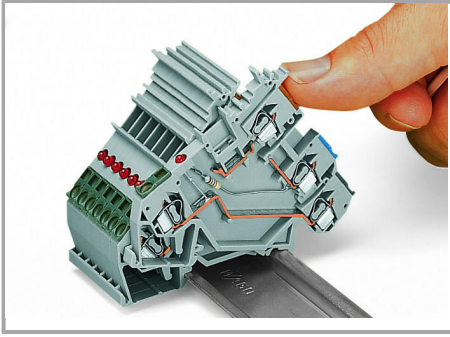
Installation Notes

Installation

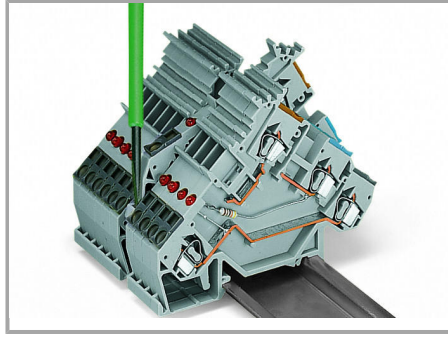
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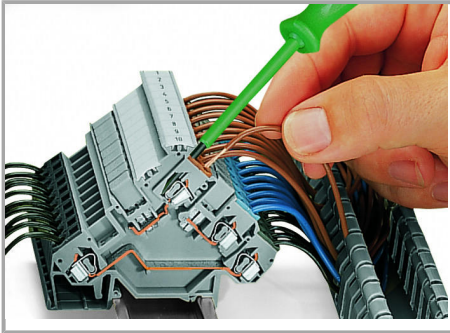


Snapping a terminal block onto the carrier rail – terminal blocks with a grounding foot automatically establish a direct contact to the rail.



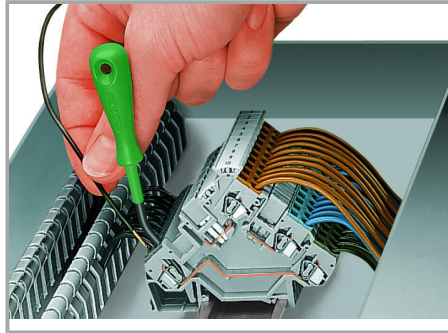
Removing a terminal block from the carrier rail. Notice: Remove jumper contacts first.

Conductor termination



CAGE CLAMP® connection

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

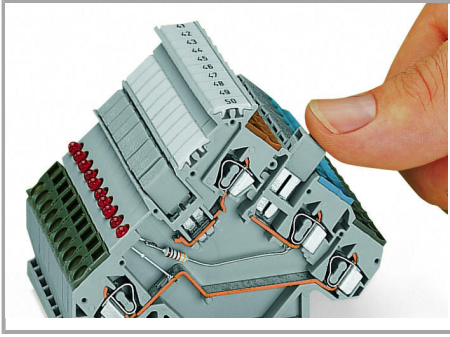


CAGE CLAMP® connection

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

Commoning

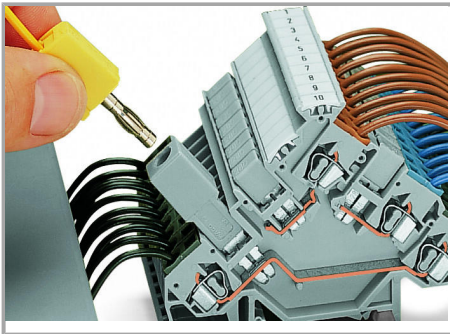
Subject to changes. Please also observe the further product documentation!



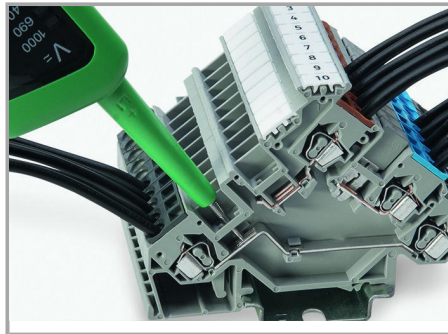
Commoning using an adjacent jumper (280-402).

Push jumper down until fully inserted.

Testing



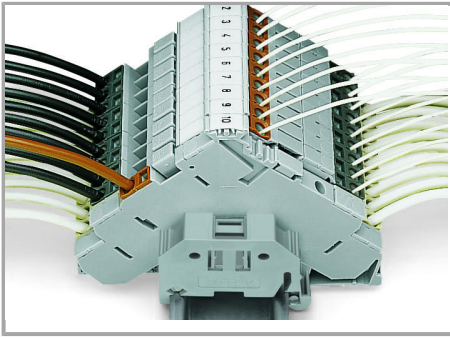
Testing via banana plug and test plug adapter (209-170).



Testing via voltage tester directly on the current bar.

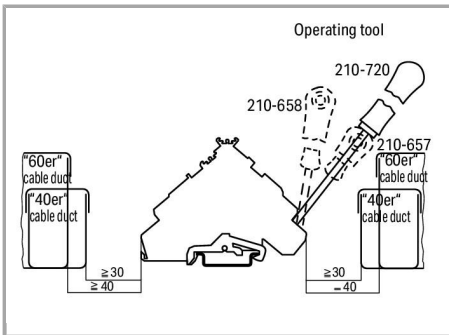
Application

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



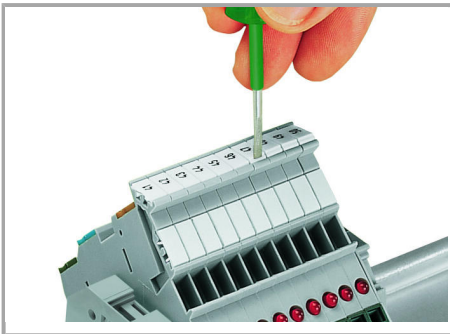
White clamping unit = shield conductor through contact

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!