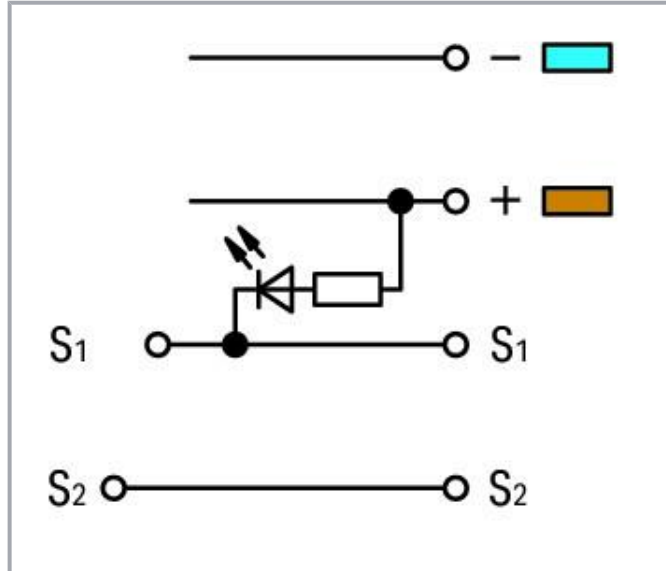
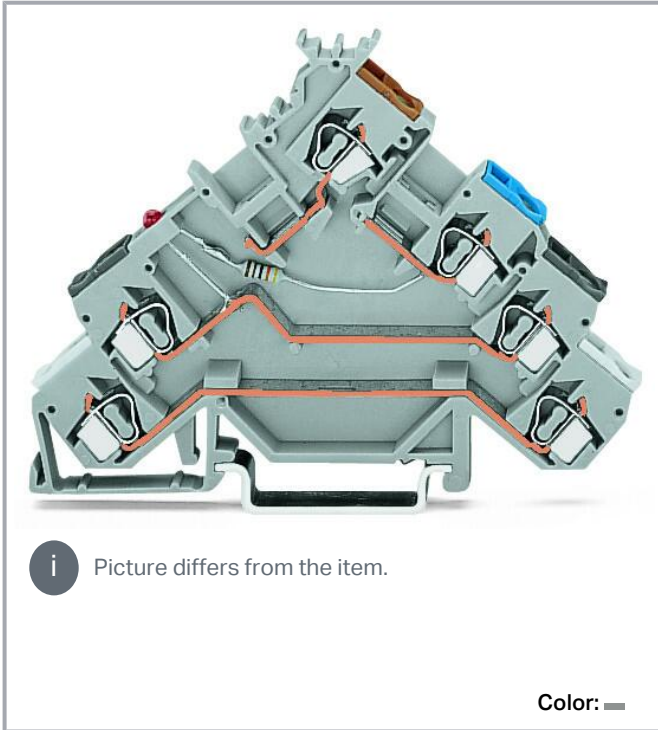


## Data sheet | Item number: 280-581/281-413

4-conductor sensor terminal block; LED (red); for NPN-(low-side) switching sensors; with colored conductor entries; 2.5 mm<sup>2</sup>; CAGE CLAMP®; 2,50 mm<sup>2</sup>; gray



[www.wago.com/280-581/281-413](http://www.wago.com/280-581/281-413)



### Data

#### Electrical data

#### Ratings per IEC/EN

Rated current 20 A

#### Power loss

Power loss, per pole (potential) 0.532 W

Rated current  $I_N$  for specified power loss 20 A

Resistance value for specified, current-dependent power loss 0.001  $\Omega$

#### General

Voltage type 1 DC

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

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Nominal voltage	24 V
Current consumption (note)	LED 4.8 mA

### Connection data

Connection points	7
Total number of potentials	4
Number of levels	4

### 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 mm<sup>2</sup>/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.

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 mm<sup>2</sup> = 16 A

4 mm<sup>2</sup> = 22 A

Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG

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



Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Wiring direction	Front-entry wiring

### Physical data

Width	5 mm / 0.197 inches
Height	90.5 mm / 3.563 inches
Depth from upper-edge of DIN-rail	63.5 mm / 2.5 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	0.318 MJ
Weight	16.1 g

### 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	27-14-11-28
eCl@ss 9.0	27-14-11-28
ETIM 8.0	EC000900
ETIM 7.0	EC000900
PU (SPU)	50 pcs
Packaging type	box

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



Country of origin	DE
GTIN	4050821864691
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	2160584.53
	UR Underwriters Laboratories Inc.	UL 1059	E45172

#### 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
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

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

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## Required accessories

### End plate

End plate



**Item no.: 280-320**

End and intermediate plate; 1 mm thick; for quadruple-deck terminal blocks; gray

[www.wago.com/280-320](http://www.wago.com/280-320)



**Item no.: 280-323**

End and intermediate plate; 1 mm thick; for quadruple-deck terminal blocks; orange

[www.wago.com/280-323](http://www.wago.com/280-323)

## Optional accessories

### Ferrule

Ferrule



**Item no.: 216-101**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-101](http://www.wago.com/216-101)



**Item no.: 216-104**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-104](http://www.wago.com/216-104)



**Item no.: 216-102**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-102](http://www.wago.com/216-102)



**Item no.: 216-103**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated

[www.wago.com/216-103](http://www.wago.com/216-103)



**Item no.: 216-203**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red

[www.wago.com/216-203](http://www.wago.com/216-203)



**Item no.: 216-202**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

[www.wago.com/216-202](http://www.wago.com/216-202)



**Item no.: 216-204**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black

[www.wago.com/216-204](http://www.wago.com/216-204)



**Item no.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white

[www.wago.com/216-201](http://www.wago.com/216-201)



**Item no.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow

[www.wago.com/216-301](http://www.wago.com/216-301)



**Item no.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise

[www.wago.com/216-302](http://www.wago.com/216-302)

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

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## Testing and measuring

### Testing accessories

	<b>Item no.: 209-170</b> Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm <sup>2</sup> - 10 mm <sup>2</sup> tbs; gray	<a href="http://www.wago.com/209-170">www.wago.com/209-170</a>
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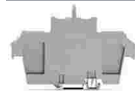
## Protective warning marker

### Cover


	<b>Item no.: 280-415</b> Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow	<a href="http://www.wago.com/280-415">www.wago.com/280-415</a>
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## Mounting


### Cover carrier

	<b>Item no.: 709-168</b> Cover carrier; Type 2; incl. fixing/retaining screws and knurled nut; suitable for 283 to 285 Series rail-mounted terminal blocks; suitable for 279 to 281 Series double- and triple-deck terminal blocks; suitable for 780 to 785, 775, 776 and 777 Series TOPJOB® rail-mounted terminal blocks; suitable for 280 Series sensor and actuator terminal blocks; suitable for 282 Series disconnect/test terminal blocks for transformer circuits; gray	<a href="http://www.wago.com/709-168">www.wago.com/709-168</a>
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### Cover






	<b>Item no.: 709-154</b> Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent	<a href="http://www.wago.com/709-154">www.wago.com/709-154</a>
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### Mounting accessories

	<b>Item no.: 249-116</b> Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	<a href="http://www.wago.com/249-116">www.wago.com/249-116</a>
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## Marking accessories

### Marker

	<b>Item no.: 2009-115/000-002</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	<a href="http://www.wago.com/2009-115/000-002">www.wago.com/2009-115/000-002</a>
	<b>Item no.: 2009-115/000-007</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	<a href="http://www.wago.com/2009-115/000-007">www.wago.com/2009-115/000-007</a>
	<b>Item no.: 2009-115/000-017</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green	<a href="http://www.wago.com/2009-115/000-017">www.wago.com/2009-115/000-017</a>
	<b>Item no.: 2009-115/000-023</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	<a href="http://www.wago.com/2009-115/000-023">www.wago.com/2009-115/000-023</a>
	<b>Item no.: 2009-115/000-024</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	<a href="http://www.wago.com/2009-115/000-024">www.wago.com/2009-115/000-024</a>

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



**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](http://www.wago.com/2009-115)



**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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://www.wago.com/793-501/000-023)

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

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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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://www.wago.com/2009-115/000-006)

### Insulation stop

Insulation stop



**Item no.: 280-472**  
Insulation stop; 0.75 - 1 mm<sup>2</sup>; 5 pieces/strip; black

[www.wago.com/280-472](http://www.wago.com/280-472)



**Item no.: 280-470**  
Insulation stop; 0.08 - 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st"); 5 pieces/strip; white

[www.wago.com/280-470](http://www.wago.com/280-470)

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





**Item no.: 280-471**  
Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; 5 pieces/strip; light gray

[www.wago.com/280-471](http://www.wago.com/280-471)

**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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://www.wago.com/210-196)

**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](http://www.wago.com/210-657)

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



**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](http://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](http://www.wago.com/210-720)

## Jumpers

### Jumper



**Item no.: 210-123**

Wire commoning chain; insulated; blue

[www.wago.com/210-123](http://www.wago.com/210-123)



**Item no.: 280-402**

Jumper; insulated; gray

[www.wago.com/280-402](http://www.wago.com/280-402)



**Item no.: 210-103**

Wire commoning chain; insulated; black

[www.wago.com/210-103](http://www.wago.com/210-103)



**Item no.: 280-492**

Jumper; 2-way; insulated; gray

[www.wago.com/280-492](http://www.wago.com/280-492)



**Item no.: 280-482**

Jumper; 2-way; insulated; gray

[www.wago.com/280-482](http://www.wago.com/280-482)



**Item no.: 280-484**

Jumper; 4-way; insulated; gray

[www.wago.com/280-484](http://www.wago.com/280-484)



**Item no.: 280-490**

Jumper; 10-way; insulated; gray

[www.wago.com/280-490](http://www.wago.com/280-490)



**Item no.: 280-485**

Jumper; 5-way; insulated; gray

[www.wago.com/280-485](http://www.wago.com/280-485)



**Item no.: 280-483**

Jumper; 3-way; insulated; gray

[www.wago.com/280-483](http://www.wago.com/280-483)



**Item no.: 709-110**

Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black

[www.wago.com/709-110](http://www.wago.com/709-110)



**Item no.: 709-112**

Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black

[www.wago.com/709-112](http://www.wago.com/709-112)



**Item no.: 709-111**

Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black

[www.wago.com/709-111](http://www.wago.com/709-111)



**Item no.: 780-454**

Staggered jumper; from 1 to 4; insulated; gray

[www.wago.com/780-454](http://www.wago.com/780-454)

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

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	<b>Item no.: 780-452</b> Staggered jumper; from 1 to 2; insulated; gray	<a href="http://www.wago.com/780-452">www.wago.com/780-452</a>
	<b>Item no.: 780-453</b> Staggered jumper; from 1 to 3; insulated; gray	<a href="http://www.wago.com/780-453">www.wago.com/780-453</a>
	<b>Item no.: 780-457</b> Staggered jumper; from 1 to 7; insulated; gray	<a href="http://www.wago.com/780-457">www.wago.com/780-457</a>
	<b>Item no.: 780-456</b> Staggered jumper; from 1 to 6; insulated; gray	<a href="http://www.wago.com/780-456">www.wago.com/780-456</a>
	<b>Item no.: 780-455</b> Staggered jumper; from 1 to 5; insulated; gray	<a href="http://www.wago.com/780-455">www.wago.com/780-455</a>
	<b>Item no.: 780-458</b> Staggered jumper; from 1 to 8; insulated; gray	<a href="http://www.wago.com/780-458">www.wago.com/780-458</a>

**Push-in type wire jumper**

Jumper

	<b>Item no.: 249-123</b> Push-in type wire jumper; 0.75 mm <sup>2</sup> ; insulated; 180 mm long; black	<a href="http://www.wago.com/249-123">www.wago.com/249-123</a>
	<b>Item no.: 249-126</b> Push-in type wire jumper; 0.75 mm <sup>2</sup> ; insulated; 110 mm long; black	<a href="http://www.wago.com/249-126">www.wago.com/249-126</a>
	<b>Item no.: 249-127</b> Push-in type wire jumper; 0.75 mm <sup>2</sup> ; insulated; 250 mm long; black	<a href="http://www.wago.com/249-127">www.wago.com/249-127</a>
	<b>Item no.: 249-125</b> Push-in type wire jumper; insulated; 60 mm long; black	<a href="http://www.wago.com/249-125">www.wago.com/249-125</a>

**Downloads**

**Documentation**

**Bid Text**

280-581/281-413 X81 - Datei	2019 Feb 19	xml 3.4 kB	Download
280-581/281-413 doc - Datei	2017 Mar 14	doc 25.6 kB	Download

**Additional Information**

Technical Section Technical explanations	pdf 2.2 MB	Download
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Subject to changes. Please also observe the further product documentation!

## CAD/CAE-Data

### CAE data

EPLAN Data Portal 280-581/281-413	<a href="#">URL</a>	<a href="#">Download</a>
WSCAD Universe 280-581/281-413	<a href="#">URL</a>	<a href="#">Download</a>
EPLAN Data Portal 280-581/281-413	<a href="#">URL</a>	<a href="#">Download</a>
WSCAD Universe 280-581/281-413	<a href="#">URL</a>	<a href="#">Download</a>

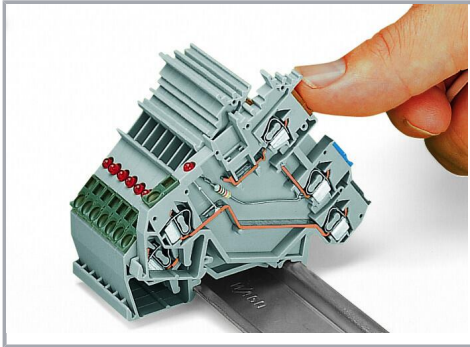
## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 280-581/281-413	<a href="#">URL</a>	<a href="#">Download</a>
4-conductor sensor terminal block; LED (red); for NPN-(low-side) switching sensors; with colored conductor entries; 2.5 mm <sup>2</sup> ; CAGE CLAMP®; 2,50 mm <sup>2</sup> ; gray		

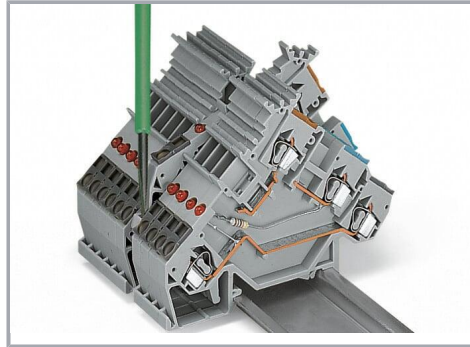
## Installation Notes

### Installation



Snapping a terminal block onto the DIN-rail.

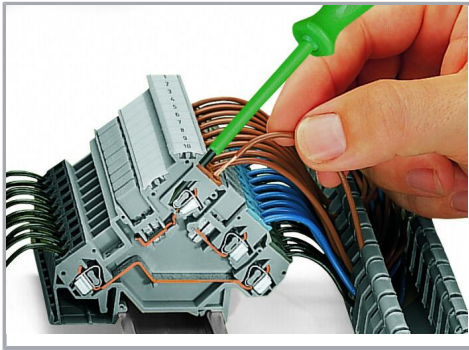
Terminal blocks with a grounding foot automatically establish a direct contact to the rail.



Removing the terminal block from DIN-rail.  
Notice: Remove jumper contacts first!

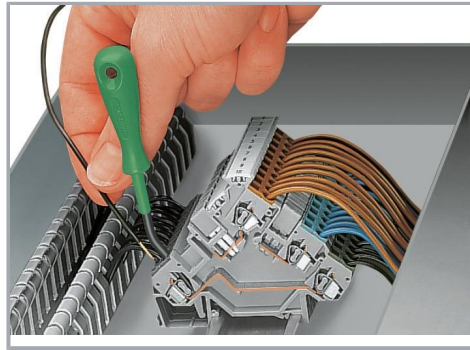
### Conductor termination

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



**CAGE CLAMP® connection**

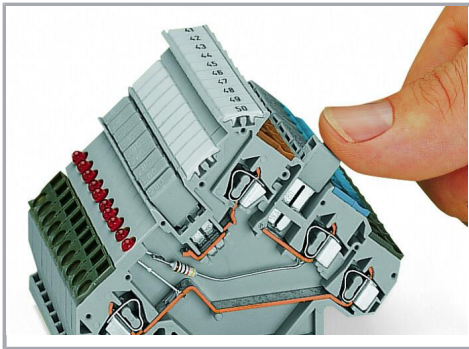
Inserting a conductor via straight operating tool (210-720).



**CAGE CLAMP® connection**

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

### Commoning

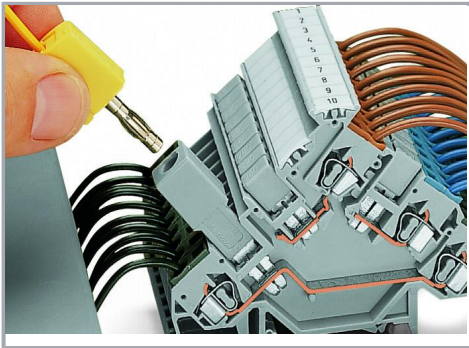


Commoning using an adjacent jumper (280-402).

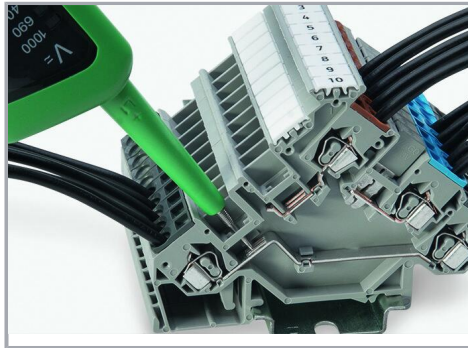
Push jumper down until fully inserted.

### Testing

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

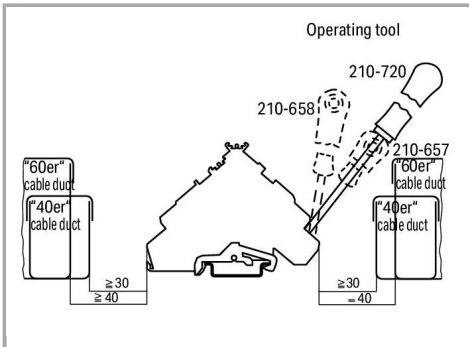


Testing via banana plug and test plug adapter (209-170).



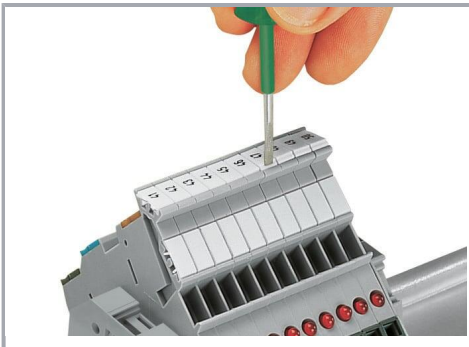
Testing via voltage tester directly on the current bar.

### 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!