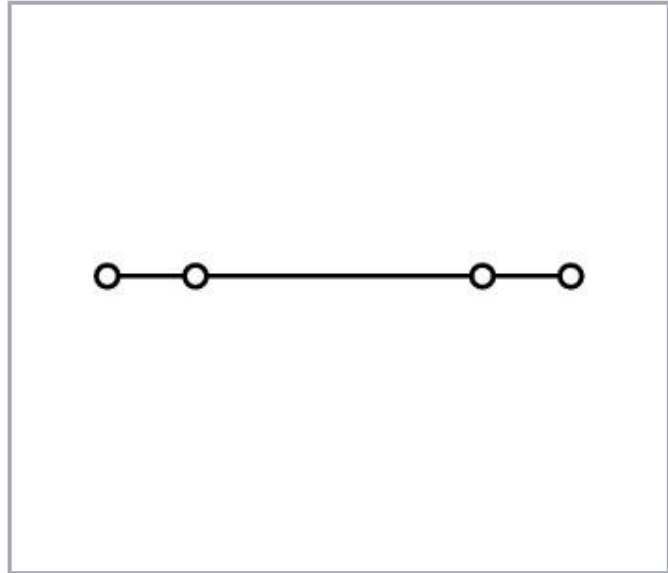
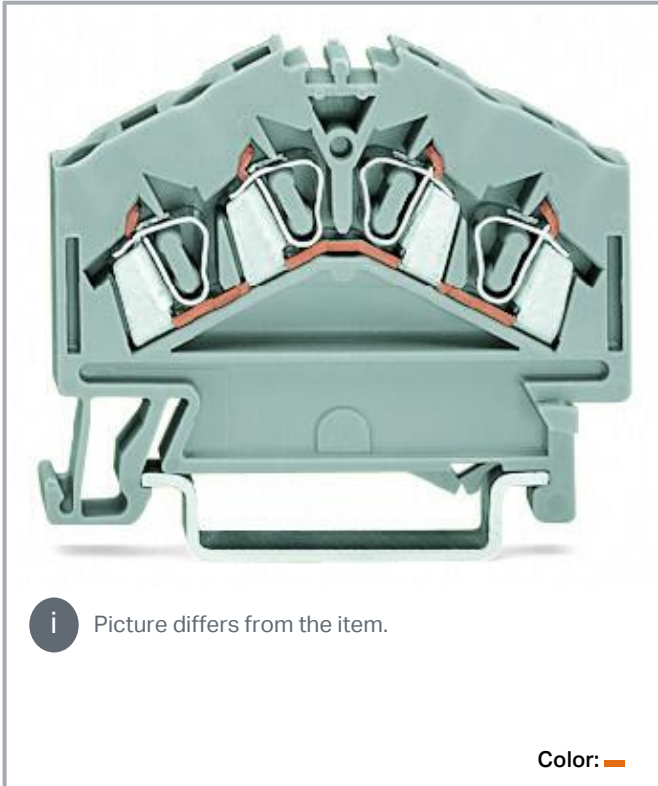


**Data sheet | Item number: 280-946**

4-conductor through terminal block; 2.5 mm<sup>2</sup>; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm<sup>2</sup>; orange



[www.wago.com/280-946](http://www.wago.com/280-946)



**Data**

**Notes**

Safety information

Notice: This terminal block cannot be commoned with adjacent jumpers.

**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

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

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Legend (ratings)

(III / 3) ≙ Overvoltage category III / Pollution degree 3

## 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 $\Omega$

## Connection data

Connection points	4
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 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.

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



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

### Physical data

Width	5 mm / 0.197 inches
Height	50.5 mm / 1.988 inches
Depth from upper-edge of DIN-rail	36.5 mm / 1.437 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	orange
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.124 MJ
Weight	7.4 g

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

## 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	DE
GTIN	4044918457132
Customs tariff number	85369010000

## Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------

## 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 Underwriters Laboratories Inc.	UL 1059	E45172

## Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity	-	-

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







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UK-Declaration of Conformity

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## Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	EN 60947	20- HG1941090- PDA
	<b>BV</b> Bureau Veritas S.A.	EN 60947	07436/F0 BV
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
	<b>LR</b> Lloyds Register	EN 60947	91/20112 (E9)

## Required accessories

## End plate

## End plate



Item no.: 280-312

End and intermediate plate; 2.5 mm thick; gray

[www.wago.com/280-312](http://www.wago.com/280-312)

Item no.: 280-318

Separator plate; 2.5 mm thick; oversized; orange

[www.wago.com/280-318](http://www.wago.com/280-318)

Item no.: 280-313

End and intermediate plate; 2.5 mm thick; orange

[www.wago.com/280-313](http://www.wago.com/280-313)

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

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## Optional accessories

### Mounting

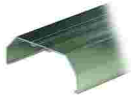
#### Cover carrier


**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](http://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](http://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](http://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](http://www.wago.com/249-116)

### 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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**Marking accessories**

Double marker carrier



**Item no.: 209-128**  
Adaptor; gray

[www.wago.com/209-128](http://www.wago.com/209-128)

Marker



**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.: 793-501**  
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.: 793-5501**  
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)

Group marker carrier



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

[www.wago.com/249-105](http://www.wago.com/249-105)

**Protective warning marker**

Cover



**Item no.: 280-415**  
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

[www.wago.com/280-415](http://www.wago.com/280-415)

**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)



**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)

**Jumpers**

Jumper



**Item no.: 210-123**  
Wire commoning chain; insulated; blue

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



**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)

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

	<b>Item no.: 280-482</b> Jumper; 2-way; insulated; gray	<a href="http://www.wago.com/280-482">www.wago.com/280-482</a>
	<b>Item no.: 280-484</b> Jumper; 4-way; insulated; gray	<a href="http://www.wago.com/280-484">www.wago.com/280-484</a>
	<b>Item no.: 280-490</b> Jumper; 10-way; insulated; gray	<a href="http://www.wago.com/280-490">www.wago.com/280-490</a>
	<b>Item no.: 280-485</b> Jumper; 5-way; insulated; gray	<a href="http://www.wago.com/280-485">www.wago.com/280-485</a>
	<b>Item no.: 280-483</b> Jumper; 3-way; insulated; gray	<a href="http://www.wago.com/280-483">www.wago.com/280-483</a>
	<b>Item no.: 709-110</b> Wire commoning chain; 2.5 mm <sup>2</sup> ; insulated; black	<a href="http://www.wago.com/709-110">www.wago.com/709-110</a>
	<b>Item no.: 709-112</b> Wire commoning chain; 2.5 mm <sup>2</sup> ; insulated; black	<a href="http://www.wago.com/709-112">www.wago.com/709-112</a>
	<b>Item no.: 709-111</b> Wire commoning chain; 2.5 mm <sup>2</sup> ; insulated; black	<a href="http://www.wago.com/709-111">www.wago.com/709-111</a>
<b>Testing and measuring</b>		
Testing accessories		
	<b>Item no.: 249-141</b> L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/249-141">www.wago.com/249-141</a>
	<b>Item no.: 249-143</b> L-type spacer module; modular; e.g., bridging commoned terminal blocks; gray	<a href="http://www.wago.com/249-143">www.wago.com/249-143</a>
	<b>Item no.: 249-142</b> L-type end module; modular; with rigid contact pin; End module; 1,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/249-142">www.wago.com/249-142</a>
<b>Carrier rail</b>		
Mounting accessories		
	<b>Item no.: 210-197</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-197">www.wago.com/210-197</a>
	<b>Item no.: 210-198</b> Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	<a href="http://www.wago.com/210-198">www.wago.com/210-198</a>
	<b>Item no.: 210-504</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-504">www.wago.com/210-504</a>
	<b>Item no.: 210-505</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-505">www.wago.com/210-505</a>




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



	<b>Item no.: 210-506</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-506">www.wago.com/210-506</a>
	<b>Item no.: 210-508</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-508">www.wago.com/210-508</a>
	<b>Item no.: 210-113</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-113">www.wago.com/210-113</a>
	<b>Item no.: 210-118</b> Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-118">www.wago.com/210-118</a>
	<b>Item no.: 210-112</b> 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	<a href="http://www.wago.com/210-112">www.wago.com/210-112</a>
	<b>Item no.: 210-114</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-114">www.wago.com/210-114</a>
	<b>Item no.: 210-115</b> 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	<a href="http://www.wago.com/210-115">www.wago.com/210-115</a>
	<b>Item no.: 210-196</b> Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-196">www.wago.com/210-196</a>

## Tool

### Operating tool

	<b>Item no.: 210-657</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured	<a href="http://www.wago.com/210-657">www.wago.com/210-657</a>
	<b>Item no.: 210-658</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured	<a href="http://www.wago.com/210-658">www.wago.com/210-658</a>
	<b>Item no.: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>

## Downloads

### Documentation

#### Bid Text

280-946	2019 Feb 19	xml	Download
X81 - Datei		3.5 kB	

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

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280-946	2017 Feb 28	doc	Download
doc - Datei		25.1 kB	

#### Additional Information

Technical Section		pdf	Download
Technical explanations		2.2 MB	

#### CAD/CAE-Data

##### CAD data

2D/3D Models 280-946		URL	Download
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##### CAE data

ZUKEN Portal 280-946		URL	Download
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WSCAD Universe 280-946		URL	Download
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EPLAN Data Portal 280-946		URL	Download
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#### Environmental Product Compliance

##### Compliance Search

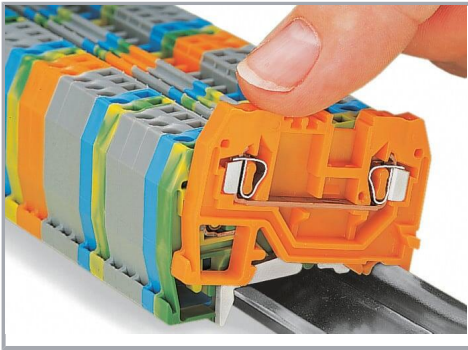
Environmental Product Compliance 280-946		URL	Download
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4-conductor through terminal block; 2.5 mm<sup>2</sup>; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm<sup>2</sup>; orange

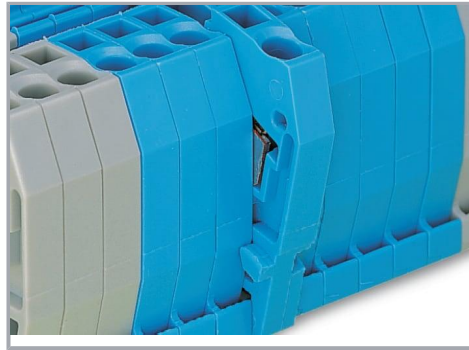
#### Installation Notes

##### Installation

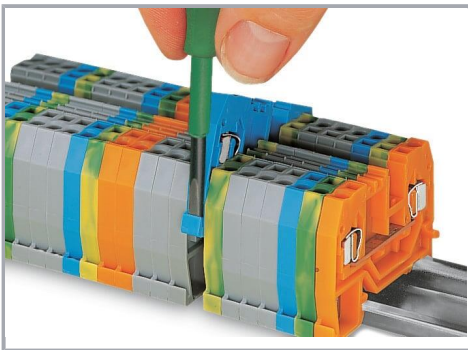
Subject to changes. Please also observe the further product documentation!



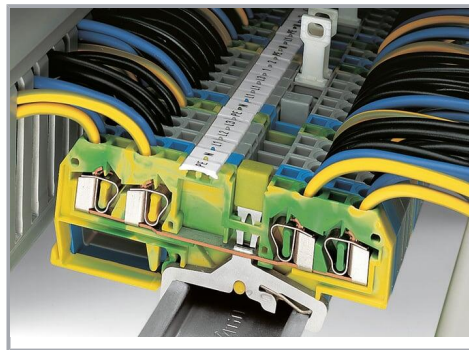
Snapping a terminal block onto the DIN-rail.



Quick assembly keys prevent reverse mounting.

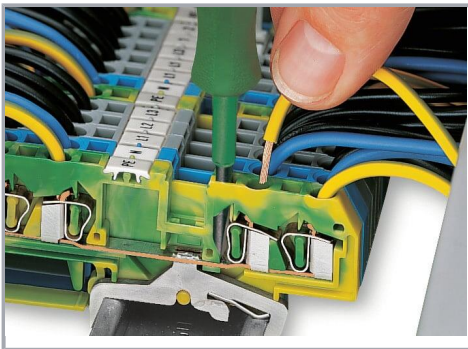


Removing a terminal block from the assembly.



Steel DIN-rails are not suited for PEN (ground and N-conductor) applications per EN 60947-7-2 (VDE 0611, Part 3).

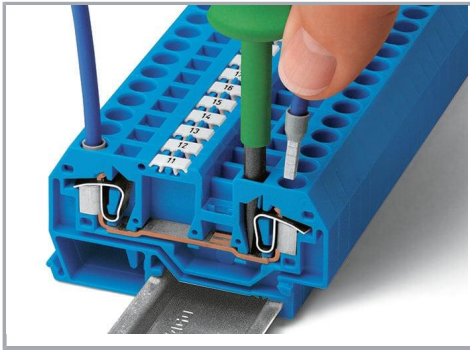
### Conductor termination



### CAGE CLAMP® connection

Inserting a conductor.

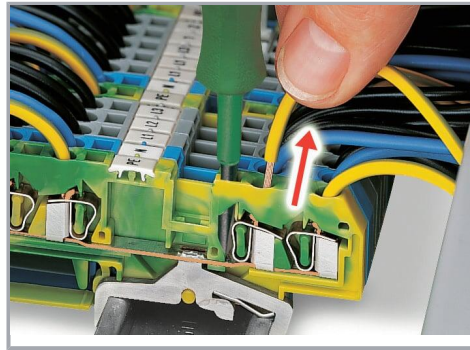
Subject to changes. Please also observe the further product documentation!



**CAGE CLAMP® connection**

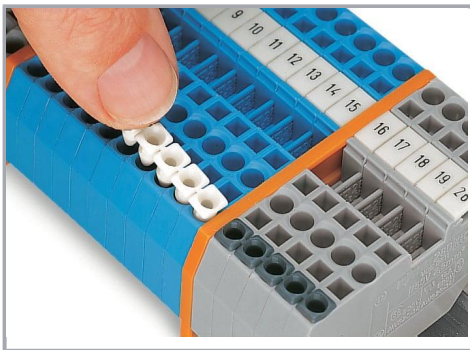
Inserting a conductor.

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



**CAGE CLAMP® connection**

Removing a solid conductor.



Inserting insulation stops.

### Commoning

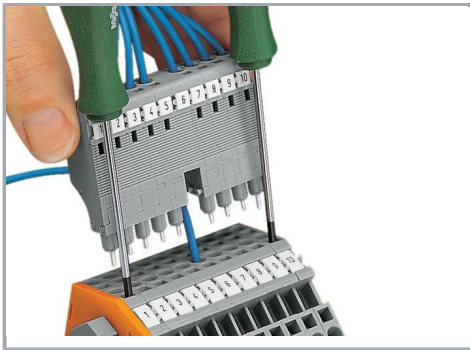
Subject to changes. Please also observe the further product documentation!



4-conductor through terminal blocks, angled type,

formation of groups with 3-way, comb-style jumper bars

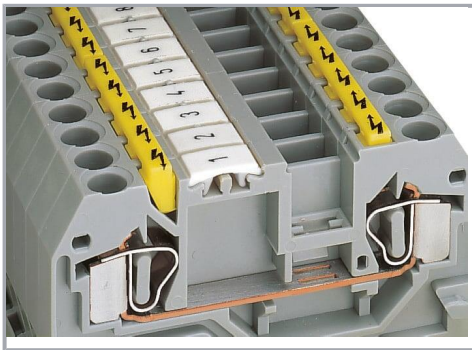
#### Testing



L-type test plug modules fitted with CAGE CLAMP®

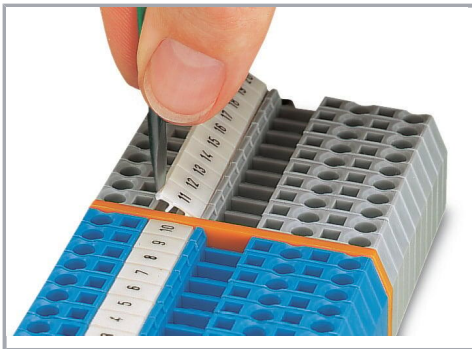
#### Cover

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



Protective warning markers inserted into the operating slots

### Marking



Labeling via WMB Multi Marking System.

### Product family

#### Classic

EPSITRON® CLASSIC POWER: The Robust Power Supply – with Integrated TopBoost (Optional)

[Show all products from the family](#)

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