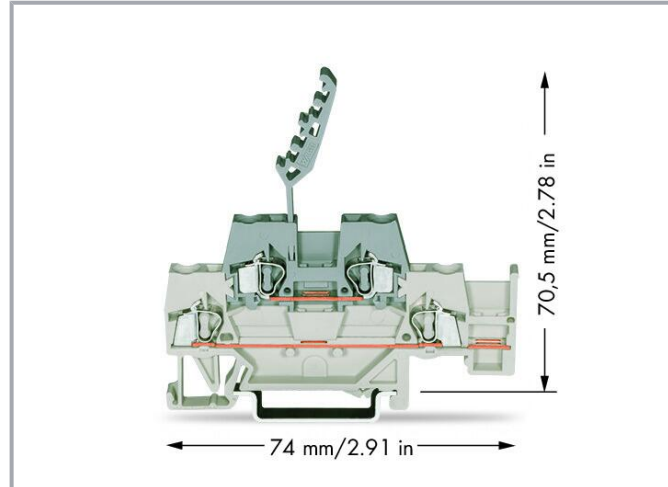
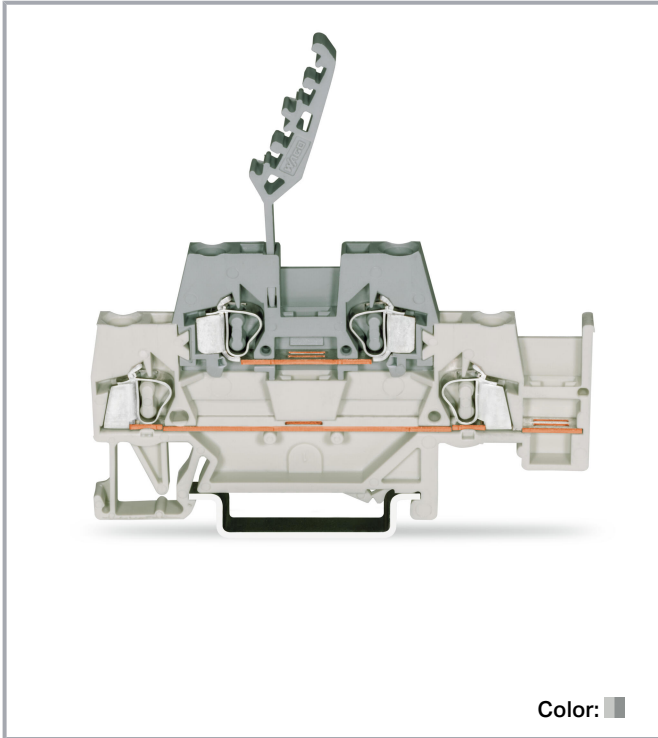


## Data sheet | Item number: 280-542

Double-deck terminal block; Through/through terminal block; with additional jumper position on lower level; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm<sup>2</sup>; CAGE CLAMP®; 2,50 mm<sup>2</sup>; light gray/gray

[www.wago.com/280-542](http://www.wago.com/280-542)



### Data

#### Electrical data

#### Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-1
Nominal voltage (III/3)	500 V
Rated impulse voltage (III/3)	6 kV
Rated current	20 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

#### Power loss

Power loss, per pole (potential)	0.532 W
Rated current $I_N$ for specified power loss	20 A

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

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Do you have any questions about our products?  
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Resistance value for specified, current-dependent power loss	0.001 Ω
--	---------

### Connection data

Connection points	4
Total number of potentials	2
Number of levels	2

### 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
Note (conductor cross-section)	12 AWG: THHN, THWN

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

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Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Wiring direction	Front-entry wiring

### Physical data

Width	5 mm / 0.197 inches
Height	64 mm / 2.52 inches
Depth from upper-edge of DIN-rail	70.5 mm / 2.776 inches

### Mechanical Data

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

### Material Data

Note (material data)	Information on material specifications can be found here
Color	light gray/gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.158 MJ
Weight	10.4 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	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 8.0	EC000897
ETIM 7.0	EC000897
PU (SPU)	50 pcs
Packaging type	box
Country of origin	DE

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


GTIN	4044918479158
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

### 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
	BV Bureau Veritas S.A.	EN 60947	07436/F0 BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

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

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LR  
Lloyds Register

EN 60947

91/20112  
(E9)

## Required accessories

### End plate

#### End plate



**Item no.: 280-343**  
End and intermediate plate; 2.5 mm thick; orange

[www.wago.com/280-343](http://www.wago.com/280-343)



**Item no.: 280-342**  
End and intermediate plate; 2.5 mm thick; gray

[www.wago.com/280-342](http://www.wago.com/280-342)

## Optional accessories

### 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)



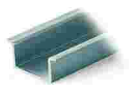
**Item no.: 210-504**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored

[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)



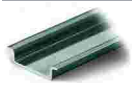
**Item no.: 210-506**  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored

[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**

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



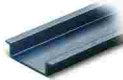
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; [www.wago.com/210-112](http://www.wago.com/210-112)  
silver-colored



**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; [www.wago.com/210-115](http://www.wago.com/210-115)  
silver-colored



**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)

**Protective warning marker**

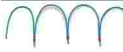
Cover



**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)

**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.: 281-421**  
Vertical jumper; insulated; gray [www.wago.com/281-421](http://www.wago.com/281-421)



**Item no.: 280-492**  
Jumper; 2-way; insulated; gray [www.wago.com/280-492](http://www.wago.com/280-492)



**Item no.: 280-409**  
Jumper; insulated; gray [www.wago.com/280-409](http://www.wago.com/280-409)



**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)












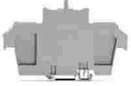




**Item no.: 280-490**  
Jumper; 10-way; insulated; gray [www.wago.com/280-490](http://www.wago.com/280-490)



**Item no.: 280-485**  
Jumper; 5-way; insulated; gray [www.wago.com/280-485](http://www.wago.com/280-485)

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

	<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>Item no.: 780-454</b> Staggered jumper; from 1 to 4; insulated; gray	<a href="http://www.wago.com/780-454">www.wago.com/780-454</a>
	<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>
<b>Mounting</b>		
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>
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>
Mounting accessories		
	<b>Item no.: 209-106</b> Mounting carrier; for isolated mounting on DIN 35 rails; gray	<a href="http://www.wago.com/209-106">www.wago.com/209-106</a>

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

**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)**Testing and measuring**

## Testing accessories

**Item no.: 249-141**L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm<sup>2</sup>; gray[www.wago.com/249-141](http://www.wago.com/249-141)**Item no.: 249-142**L-type end module; modular; with rigid contact pin; End module; 1,50 mm<sup>2</sup>; gray[www.wago.com/249-142](http://www.wago.com/249-142)**Marking accessories**

## 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)**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)**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**

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

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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)

### Push-in type wire jumper

#### Jumper



**Item no.: 249-123**

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 180 mm long; black

[www.wago.com/249-123](http://www.wago.com/249-123)



**Item no.: 249-126**

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 110 mm long; black

[www.wago.com/249-126](http://www.wago.com/249-126)



**Item no.: 249-127**

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 250 mm long; black

[www.wago.com/249-127](http://www.wago.com/249-127)



**Item no.: 249-125**

Push-in type wire jumper; insulated; 60 mm long; black

[www.wago.com/249-125](http://www.wago.com/249-125)

### 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)



**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)

### Downloads

### Documentation

### Additional Information

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

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Technical Section  
Technical explanations

pdf  
2.2 MB  
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## CAD/CAE-Data

### CAE data

EPLAN Data Portal 280-542

URL  
Download

WSCAD Universe 280-542

URL  
Download

## Environmental Product Compliance

### Compliance Search

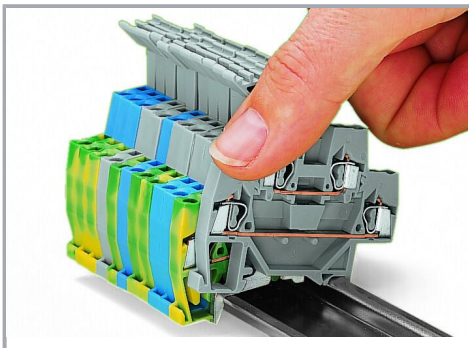
Environmental Product Compliance 280-542

URL  
Download

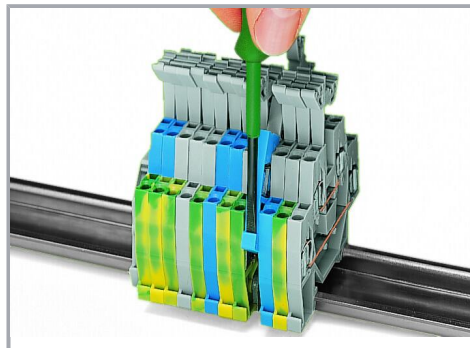
Double-deck terminal block; Through/through terminal block; with additional jumper position on lower level; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm<sup>2</sup>; CAGE CLAMP®; 2,50 mm<sup>2</sup>; light gray/gray

## Installation Notes

### Installation

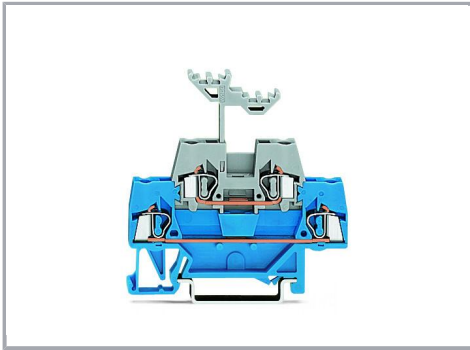


Snapping a terminal block onto the DIN-rail.



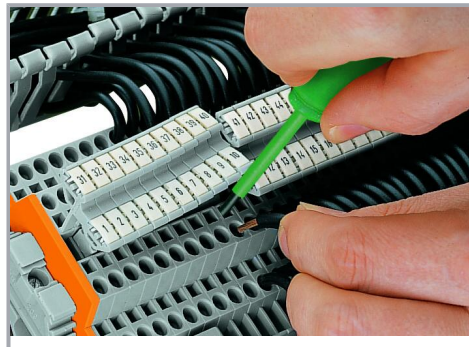
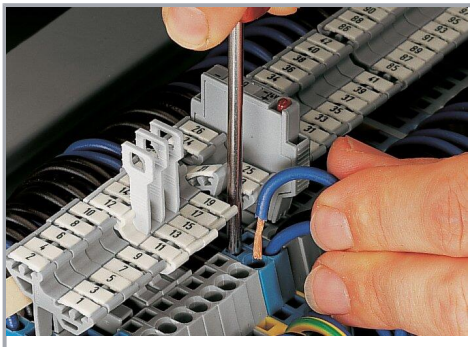
Removing a terminal block from the assembly.

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



Double-deck terminal blocks accommodate two circuits of different potentials on two decks; different circuits can be differentiated by color coding either deck (280 Series). The lower deck is wider than the upper for easier wiring.

#### Conductor termination



The flexible marker carrier, which is placed above the wiring level, can be pushed aside during wiring or commoning. The carrier has two staggered levels for WMB markers that perfectly align with the terminal block decks.

#### Commoning

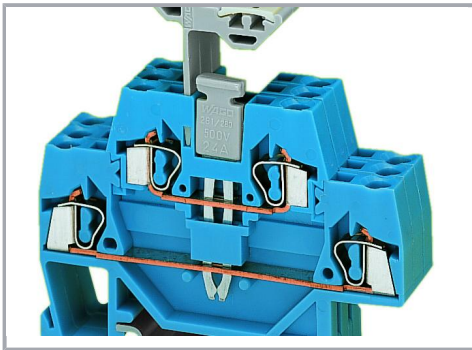
Subject to changes. Please also observe the further product documentation!



Commoning using an adjacent jumper.

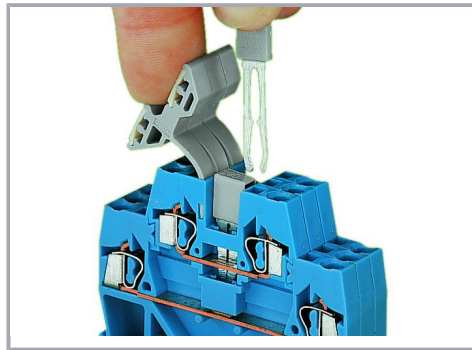
Push jumpers down until fully inserted!

### Commoning



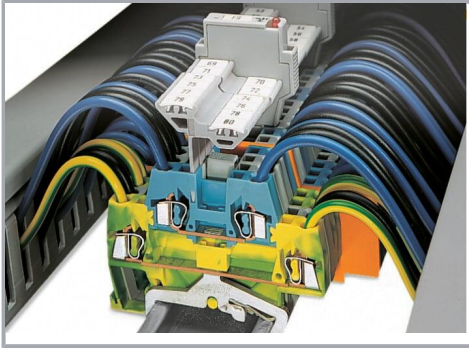
Commoning with a vertical jumper (281-421).

Push vertical jumper down until fully inserted!



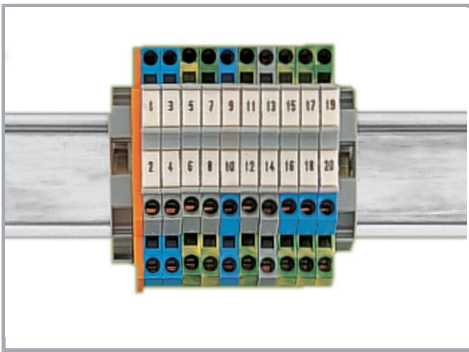
Combining vertical and adjacent jumpers.

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

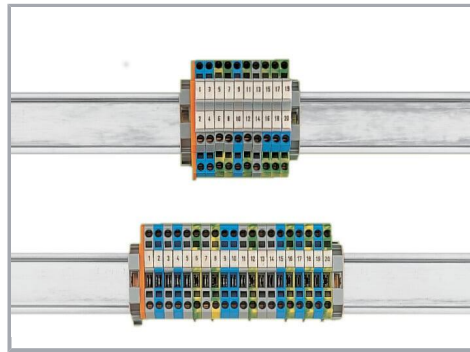


Example of a mixed assembly with double-deck terminal blocks.

The 280 Series Double-Deck Terminal Blocks are available with decks of same or different color according to their function. This is an additional visual aid during wiring, service or maintenance.



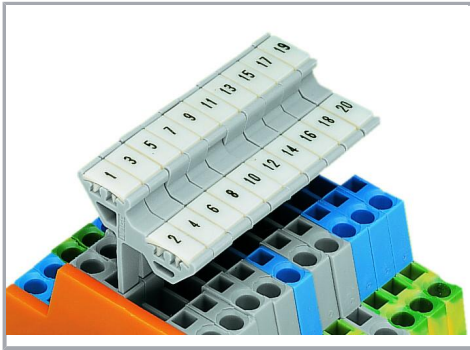
With a terminal block width of just 5 mm, an effective width of just 2.5 mm for terminal blocks of same or different potentials can be realized for conductors ranging 0.08 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> (28 ... 14 AWG).



Use 50% less rail space with double-deck terminal blocks.

## Marking

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



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!