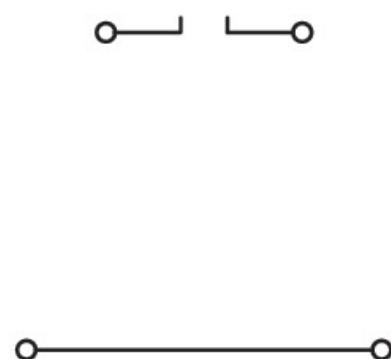


Color: ■ gray/gray



Similar to illustration

Double-deck terminal block, 280 Series, operating tool

Easy electrical installations are guaranteed with this double-deck terminal block (item number 280-528). The double-deck terminal block also serves as carrier terminal block. Ensure that the strip lengths are between 8 mm and 9 mm when connecting conductors to this double-deck terminal block. Featuring conductor terminals along with CAGE CLAMP®, this product is highly versatile. Our celebrated universal connection known as CAGE CLAMP® is industry-leading when it comes to connection technology and electrical interconnections. Depending on the type of conductor, this double-deck terminal block is ideal for conductor cross sections ranging from 0.08 mm² to 2.5 mm². It features two levels and four clamping points that you can use to connect three potentials. The gray housing is made of polyamide (PA66) for insulation. These function terminal blocks are mounted using DIN-35 rails..

Electrical data

Ratings per			IEC/EN 60947-7-1			Power Loss		
Overvoltage category	III	III	II			Power loss, per pole (potential)	0.266 W	
Pollution degree	3	2	2			Rated current I_N for specified power loss	10 A	
Nominal voltage	400 V	-	-			Resistance value for specified, current-dependent power loss	0.00133 Ω	
Rated surge voltage	6 kV	-	-					
Rated current	10 A	-	-					

Connection data

Clamping units	4
Total number of potentials	3
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 mm²/12 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 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

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

Physical data

Width	5 mm / 0.197 inches
Height	84 mm / 3.307 inches
Depth from upper-edge of DIN-rail	39.6 mm / 1.559 inches

Mechanical data

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

Material data

Note (material data)	Information on material specifications can be found here
Color	gray/gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.23 MJ
Weight	10.2 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 9.0	EC000897
ETIM 8.0	EC000897
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918539036
Customs tariff number	85369010000

Environmental Product Compliance

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

Downloads

Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 280-528	

Documentation

Additional Information		Bid Text		
Technical Section	pdf 2246.92 KB		280-528	19.02.2019
			280-528	02.03.2017

CAD/CAE-Data**CAD data**

2D/3D Models 280-528

**CAE data**EPLAN Data Portal
280-528WSCAD Universe
280-528

ZUKEN Portal 280-528

**1 Compatible Products****1.1 Required Accessories****1.1.1 End plate**[Item No.: 280-340](#)End and intermediate plate; 2.5 mm thick;
gray[Item No.: 280-341](#)End and intermediate plate; 2.5 mm thick;
orange[Item No.: 280-366](#)

Intermediate plate; 1.1 mm thick; orange

1.2 Optional Accessories**1.2.1 DIN-rail****1.2.1.1 Mounting accessories**[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[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[Item No.: 210-508](#)Steel carrier rail; 35 x 15 mm; 1.5 mm
thick; 2 m long; slotted; galvanized; simi-
lar to EN 60715; silver-colored[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[Item No.: 210-506](#)Steel carrier rail; 35 x 15 mm; 1.5 mm
thick; 2 m long; unslotted; galvanized; si-
milar to EN 60715; 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[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[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[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[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[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[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

1.2.2 Ferrule

**Item No.: 216-301**

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow

Item No.: 216-302

Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise

Item No.: 216-201

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white

Item No.: 216-101

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

**Item No.: 216-202**

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

Item No.: 216-102

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

Item No.: 216-203

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-103

Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

**Item No.: 216-204**

Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

Item No.: 216-104

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

1.2.3 Installation

1.2.3.1 Cover

**Item No.: 709-154**

Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent

1.2.3.2 Cover carrier

**Item No.: 709-168**

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 TOP-JOB® 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

1.2.3.3 Mounting accessories

**Item No.: 209-106**

Mounting carrier; for isolated mounting on DIN 35 rails; gray

Item No.: 249-116

Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.2.4 Insulation stop

1.2.4.1 Insulation stop

**Item No.: 280-470**Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white**Item No.: 280-471**Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray**Item No.: 280-472**Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; black

1.2.5 Jumper

1.2.5.1 Jumper

**Item No.: 280-490**

Jumper; 10-way; insulated; gray

**Item No.: 280-482**

Jumper; 2-way; insulated; gray

**Item No.: 280-492**

Jumper; 2-way; insulated; gray

**Item No.: 280-483**

Jumper; 3-way; insulated; gray

**Item No.: 280-484**

Jumper; 4-way; insulated; gray

**Item No.: 280-485**

Jumper; 5-way; insulated; gray

**Item No.: 709-110**Wire commoning chain; 2.5 mm²; insulated; black**Item No.: 709-111**Wire commoning chain; 2.5 mm²; insulated; black**Item No.: 709-112**Wire commoning chain; 2.5 mm²; insulated; black**Item No.: 210-103**

Wire commoning chain; insulated; black

**Item No.: 210-123**

Wire commoning chain; insulated; blue

1.2.6 Marking

1.2.6.1 Marker

**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

**Item No.: 793-501**

WMB marking card; as card; not stretchable; plain; snap-on type; white

**Item No.: 2009-115**

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

1.2.7 Plug

1.2.7.1 Fuse plug

**Item No.: 281-512/281-418**

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with blown fuse indication by neon lamp; 120 V; 6 mm wide; gray

**Item No.: 281-512/281-417**

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with blown fuse indication by neon lamp; 230 V; 6 mm wide; gray

**Item No.: 281-512/281-501**

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with LED indicator; 24 V AC/DC; 6 mm wide; gray

**Item No.: 281-512**

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with port for LED; 6 mm wide; gray

**Item No.: 281-511**

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; without blown fuse indication; 6 mm wide; gray

**Item No.: 280-854**

Fuse plug; with soldered miniature fuse; 1 A FF; 5 mm wide; gray

**Item No.: 280-856**

Fuse plug; with soldered miniature fuse; 2 A FF; 5 mm wide; gray

**Item No.: 280-850**

Fuse plug; with soldered miniature fuse; 250 mA FF; 5 mm wide; gray

**Item No.: 280-852**

Fuse plug; with soldered miniature fuse; 500 mA FF; 5 mm wide; gray

**Item No.: 280-854/281-415**

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); AC 15 - 30 V; 1 A FF; 5 mm wide; gray

**Item No.: 280-856/281-415**

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); AC 15 - 30 V; 2 A FF; 5 mm wide; gray

**Item No.: 280-850/281-415**

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); AC 15 - 30 V; 250 mA FF; 5 mm wide; gray

1.2.7.1 Fuse plug



[Item No.: 280-852/281-415](#)

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); AC 15 - 30 V; 500 mA FF; 5 mm wide; gray

[Item No.: 280-854/281-413](#)

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 15 - 30 V; 1 A FF; 5 mm wide; gray

[Item No.: 280-856/281-413](#)

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 15 - 30 V; 2 A FF; 5 mm wide; gray

[Item No.: 280-850/281-413](#)

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 15 - 30 V; 250 mA FF; 5 mm wide; gray



[Item No.: 280-852/281-413](#)

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 15 - 30 V; 500 mA FF; 5 mm wide; gray

[Item No.: 280-854/281-414](#)

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 30 - 65 V; 1 A FF; 5 mm wide; gray

[Item No.: 280-856/281-414](#)

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 30 - 65 V; 2 A FF; 5 mm wide; gray

[Item No.: 280-850/281-414](#)

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 30 - 65 V; 250 mA FF; 5 mm wide; gray



[Item No.: 280-852/281-414](#)

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 30 - 65 V; 500 mA FF; 5 mm wide; gray

1.2.8 Protective warning marker

1.2.8.1 Cover



[Item No.: 280-415](#)

Protective warning marker; for 5 terminal blocks; with high-voltage symbol; black; yellow

1.2.9 Test and measurement

1.2.9.1 Testing accessories



[Item No.: 249-142](#)

L-type end module; modular; with rigid contact pin; End module; 1,50 mm²; gray

[Item No.: 249-141](#)

L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm²; gray

1.2.10 Tool

1.2.10.1 Operating tool



[Item No.: 210-658](#)

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

[Item No.: 210-720](#)

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

[Item No.: 210-657](#)

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

Installation



Snapping a terminal block onto the DIN-rail.



Removing a terminal block from the assembly.

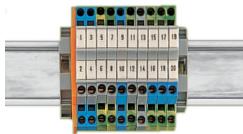


Double-deck terminal blocks accommodate two circuits of different potentials on two decks; different circuits can be differentiated by color coding either deck (280 Series). The lower deck is wider than the upper for easier wiring.

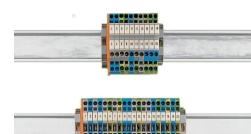
Conductor termination



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.



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 mm² ... 2.5 mm² (28 ... 14 AWG).



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

Marking



Labeling via WMB Multi Marking System.