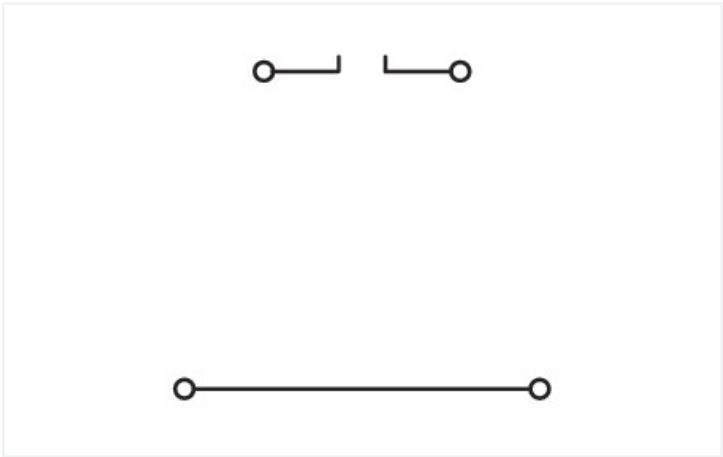


Color: ■ gray/gray



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 <sub>N</sub> 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)	<p><b>Terminating Aluminum Conductors</b> WAGO Spring-Clamp Terminal Blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste <a href="#">249-130</a> is used for termination.</p> <p>"Alu-Plus" Contact Paste Advantages:</p> <ul style="list-style-type: none"><li>• Automatically destroys the oxide film during clamping.</li><li>• Prevents fresh oxidation at the clamping point.</li><li>• Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).</li><li>• Provides long-term protection against corrosion.</li></ul> <p>Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, <b>aluminum conductors must first be cleaned with a blade</b> and then immediately inserted into the clamping units filled with "Alu-Plus" contact paste.</p> <p>It is also possible to apply WAGO "Alu-Plus" <b>additionally</b> on the whole surface of the aluminum conductor before termination.</p> <p>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</p>	
Solid conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG	
Fine-stranded conductor	0.08 ... 2.5 mm² / 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)	<a href="#">Information on material specifications can be found here</a>
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	xml 3.59 KB
		280-528	
		02.03.2017	doc 25.00 KB



CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 280-528 	EPLAN Data Portal 280-528 
	WSCAD Universe 280-528 
	ZUKEN Portal 280-528 

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 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; unslopped; similar to EN 60715; silver-colored



[Item No.: 210-198](#)  
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; copper-colored



[Item No.: 210-508](#)  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; galvanized; similar to EN 60715; silver-colored



[Item No.: 210-197](#)  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slopped; similar to EN 60715; silver-colored



[Item No.: 210-506](#)  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; galvanized; similar to EN 60715; silver-colored



[Item No.: 210-114](#)  
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslopped; similar to EN 60715; silver-colored



[Item No.: 210-118](#)  
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslopped; according to EN 60715; silver-colored



[Item No.: 210-115](#)  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slopped; 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; slopped; 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; slopped; 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; unslopped; according to EN 60715; silver-colored



[Item No.: 210-505](#)  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslopped; galvanized; according to EN 60715; silver-colored



1.2.2 Ferrule

1.2.2.1 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; un-insulated; 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; un-insulated; 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; un-insulated; 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; un-insulated; 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



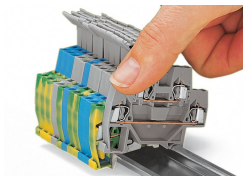
**Item No.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



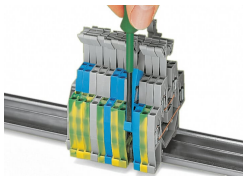
**Item No.: 210-657**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

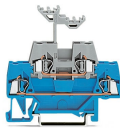
Installation



Snapping a terminal block onto the DIN-rail.



Removing a terminal block from the assembly.

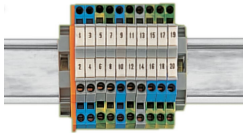
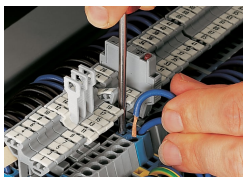


Double-deck terminal blocks accommodate two circuits of different potentials on two decks; different circuits can be differentiated by color coding either deck (280 Series). The lower deck is wider than the upper for easier wiring.

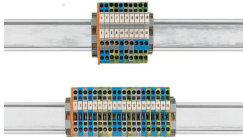
Conductor termination



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.

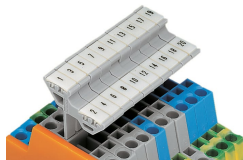


With a terminal block width of just 5 mm, an effective width of just 2.5 mm for terminal blocks of same or different potentials can be realized for conductors ranging 0.08 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> (28 ... 14 AWG).



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

Marking



Labeling via WMB Multi Marking System.