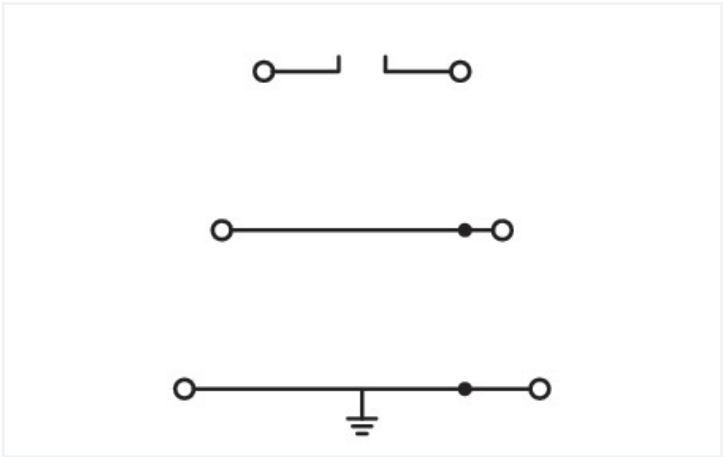
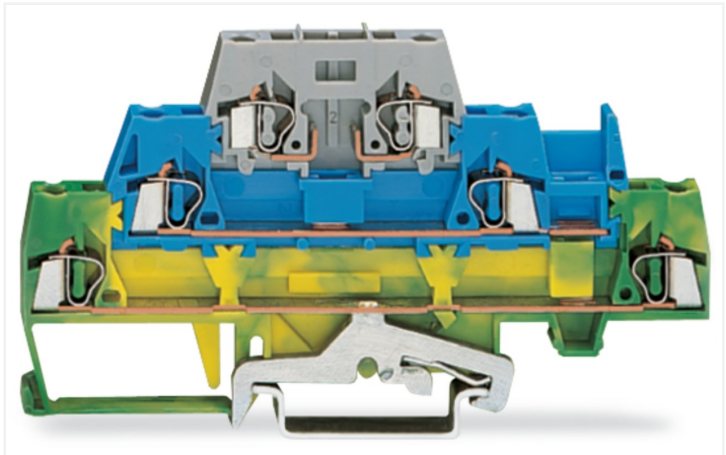


Color: green-yellow/blue/gray



Similar to illustration

Triple-deck terminal block, 280 Series, operating tool

Our triple-deck terminal block (item number 280-510) simplifies electrical installations. The triple-deck terminal block also functions as carrier terminal block. Conductors should only be connected to this triple-deck terminal block if their strip length is between 8 mm and 9 mm. This product features conductor terminals and utilizes CAGE CLAMP®. Our highly-rated and maintenance-free CAGE CLAMP® connection makes it easy to connect all conductor types without having to prepare the conductor. For example, you don't need to crimp ferrules. Depending on the conductor type, this triple-deck terminal block is ideal for conductor cross sections ranging from 0.08 mm² to 2.5 mm². It has three levels. You can connect three potentials using the six clamping points. The green-yellow/blue 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)	0.532 W
Pollution degree	3	2	2	Rated current I _N for specified power loss	20 A
Nominal voltage	400 V	-	-	Resistance value for specified, current-dependent power loss	0.00133 Ω
Rated surge voltage	6 kV	-	-		
Rated current	20 A	-	-		



Connection data		
Clamping units	6	
Total number of potentials	3	
Number of levels	3	
Connection 1		
Connection technology	CAGE CLAMP®	
Actuation type	Operating tool	
Connectable conductor materials	Copper Aluminum	
Connectable conductor materials (note)	<p>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.</p> <p>"Alu-Plus" Contact Paste Advantages:</p> <ul style="list-style-type: none">• 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. <p>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.</p> <p>It is also possible to apply WAGO "Alu-Plus" additionally 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	103 mm / 4.055 inches
Depth from upper-edge of DIN-rail	49.5 mm / 1.949 inches

Mechanical data	
Design	horizontal type
Mounting type	DIN-35 rail
Marking level	without marking level



Material data	
Note (material data)	Information on material specifications can be found here
Color	green-yellow/blue/gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.313 MJ
Weight	21.3 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	27-14-11-41
eCl@ss 9.0	27-14-11-41
ETIM 9.0	EC000901
ETIM 8.0	EC000901
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	CN
GTIN	4050821293552
Customs tariff number	85369010000

Environmental Product Compliance	
CAS-No.	7439-92-1
REACH Candidate List Substance	Lead
RoHS Compliance Status	Compliant, No Exemption
SCIP notification number (Austria)	6ed98591-756f-4f94-9c0b-debd0a59ee07
SCIP notification number (Belgium)	1474dd91-4d99-44bb-8ba4-46e16c36ae78
SCIP notification number (Bulgaria)	97f75d78-4439-4a94-9cfd-74f978460604
SCIP notification number (Czech Republic)	d5fc19bf-567e-4dd0-b56e-2e20caf01d0e
SCIP notification number (Denmark)	0442b196-1414-476a-9fe4-75c635605326
SCIP notification number (Finland)	70b18fd2-4201-4ea0-a076-1adfc7fa8699
SCIP notification number (France)	424c9ee6-29c7-4292-a120-026cede32c4c
SCIP notification number (Germany)	4ff53ca3-4137-459b-adc3-9d5c087415f7
SCIP notification number (Hungary)	820fafcf-3a67-486a-af31-0273c3b376ec
SCIP notification number (Italy)	892280af-3b6d-4292-95aa-3112ddf9437a
SCIP notification number (Netherlands)	2aae21cb-3cd3-4ccb-b992-d0427a7d8f29
SCIP notification number (Poland)	3fd85a4f-eea2-4242-a886-7678a5f951a3
SCIP notification number (Romania)	5b865202-f7a3-4fa3-8160-5367a02f566d
SCIP notification number (Sweden)	1d6fb3dd-6512-41dc-ac30-879c9b226a47



Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	2157201.01
CSA DEKRA Certification B.V.	C22.2	1536071
UR Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	EN 60947	20-HG1941090-PDA
BV Bureau Veritas S.A.	EN 60947	07436/F0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 280-510



Documentation





Additional Information

Technical Section	pdf 2246.92 KB	
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Bid Text

280-510	19.02.2019	xml 3.61 KB	
280-510	02.03.2017	doc 25.00 KB	



CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 280-510 	EPLAN Data Portal 280-510 
	WSCAD Universe 280-510 
	ZUKEN Portal 280-510 

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



[Item No.: 280-303](#)
End and intermediate plate; 2.5 mm thick; gray



[Item No.: 280-304](#)
End and intermediate plate; 2.5 mm thick; orange



[Item No.: 280-336](#)
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.: 280-402](#)
Jumper; insulated; gray



[Item No.: 280-409](#)
Jumper; insulated; gray



[Item No.: 780-452](#)
Staggered jumper; from 1 to 2; insulated; gray



[Item No.: 780-453](#)
Staggered jumper; from 1 to 3; insulated; gray



[Item No.: 780-454](#)
Staggered jumper; from 1 to 4; insulated; gray



[Item No.: 780-455](#)
Staggered jumper; from 1 to 5; insulated; gray



[Item No.: 780-456](#)
Staggered jumper; from 1 to 6; insulated; gray



[Item No.: 780-457](#)
Staggered jumper; from 1 to 7; insulated; gray



[Item No.: 780-458](#)
Staggered jumper; from 1 to 8; insulated; gray



[Item No.: 281-421](#)
Vertical jumper; 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 me- tric 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 me- tric 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 me- tric 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 me- tric 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 me- tric fuses 5 x 20 mm and 5 x 25 mm; wi- thout 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
 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 Push-in type wire jumper

1.2.9.1 Jumper



Item No.: 249-126
Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; black



Item No.: 249-123
Push-in type wire jumper; 0.75 mm²; insulated; 180 mm long; black



Item No.: 249-127
Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; black



Item No.: 249-125
Push-in type wire jumper; insulated; 60 mm long; black

1.2.10 Test and measurement

1.2.10.1 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

1.2.11 Tool

1.2.11.1 Operating tool



Item No.: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



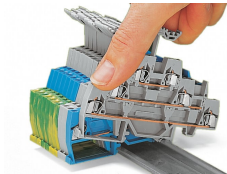
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



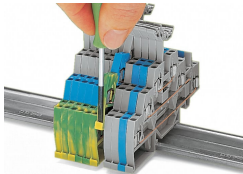
Item No.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

Installation

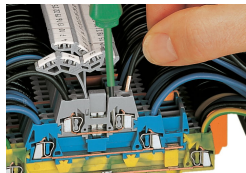


Snapping a terminal block onto the DIN-rail.



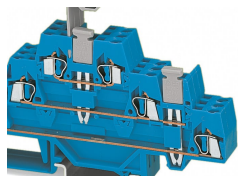
Removing a terminal block from the assembly.

Conductor termination

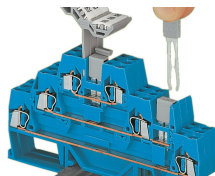


CAGE CLAMP® connection
Inserting a conductor.
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross-section.

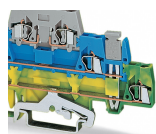
Commoning



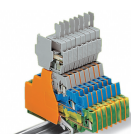
A vertical jumper commoning the upper and lower decks, creating a 6-conductor feed-through terminal block in one housing. Two adjacent triple-deck terminal blocks may be commoned together on the same deck using a push-in adjacent jumper.



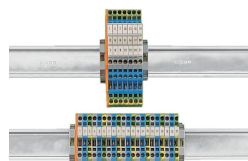
Combining vertical and adjacent jumpers.



Grounding to DIN-rail:
Connecting N-level to ground level via vertical jumper.



When triple-deck terminal blocks are used with a fuse plug (6 mm wide) in the receptacle (top) level, the extra width of the 280 Series (5 mm wide) can be compensated for via intermediate plates (1.1 mm thick).



Use 67% less rail space with triple-deck terminal blocks.

Marking



Labeling via WMB Multi Marking System.