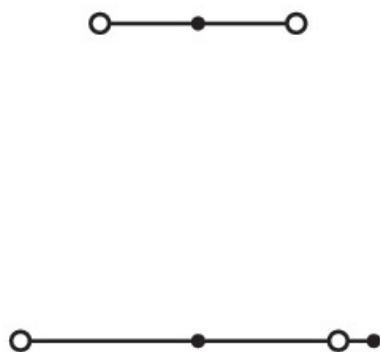
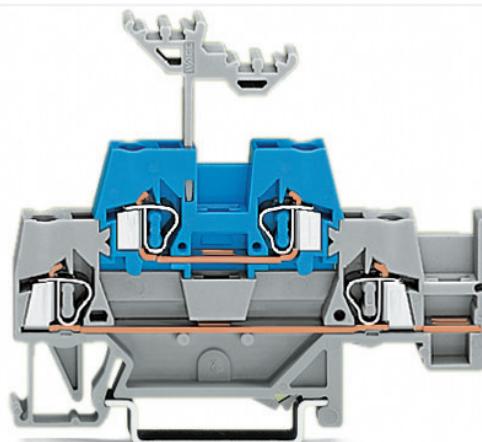
Color:  gray/blue

Similar to illustration



Similar to illustration

Electrical data

IEC/EN 60947-7-1		
Overvoltage category	III	III
Pollution degree	3	2
Nominal voltage	500 V	-
Rated surge voltage	6 kV	-
Rated current	20 A	-

Power Loss

Power loss, per pole (potential)	0.532 W
Rated current I_N for specified power loss	20 A
Resistance value for specified, current-dependent power loss	0.00133 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

Connection 1

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 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 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	74 mm / 2.913 inches
Depth from upper-edge of DIN-rail	58.5 mm / 2.303 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	gray/blue
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.204 MJ
Weight	10.7 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
GTIN	4044918478991
Customs tariff number	85369010000

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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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 Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Approval	Standard	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
LR Lloyds Register	EN 60947	91/20112 (E9)

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 280-534



Documentation

Additional Information

Technical Section

pdf
2240.62 KB



Bid Text

280-534

19.02.2019

xml
3.40 KB



280-534

28.02.2017

doc
24.50 KB



CAD/CAE-Data

CAD data

2D/3D Models 280-534



CAE data

EPLAN Data Portal
280-534



WSCAD Universe
280-534



ZUKEN Portal 280-534



1 Compatible Products

1.1 Required Accessories

1.1.1 End plate



[Item No.: 280-342](#)

End and intermediate plate; 2.5 mm thick;
gray



[Item No.: 280-343](#)

End and intermediate plate; 2.5 mm thick;
orange



[Item No.: 280-369](#)

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

1.2.1.1 Mounting accessories



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

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; 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; 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; 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 Protective warning marker

1.2.7.1 Cover



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

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

1.2.8 Push-in type wire jumper

1.2.8.1 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

1.2.9 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.

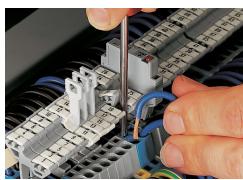


Removing a terminal block from the assembly.



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



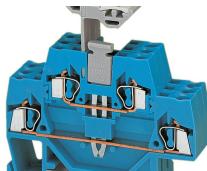
The flexible marker carrier, which is placed above the wiring level, can be pushed aside during wiring or commoning. The carrier has two staggered levels for WMB markers that perfectly align with the terminal block decks.

Commoning



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.



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 mm² ... 2.5 mm² (28 ... 14 AWG).

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

Marking



Labeling via WMB Multi Marking System.