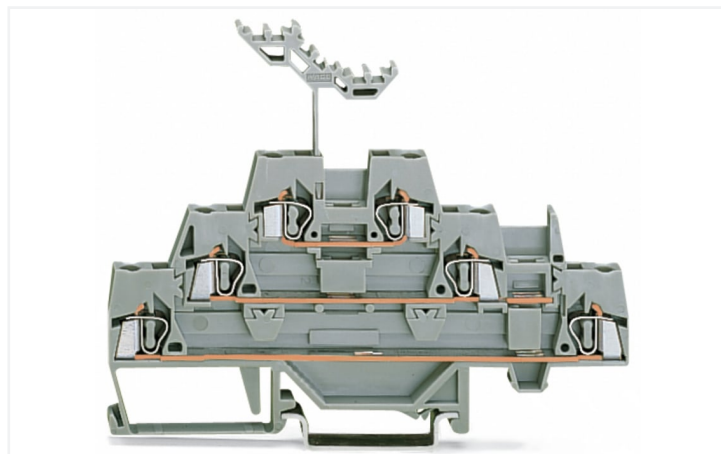
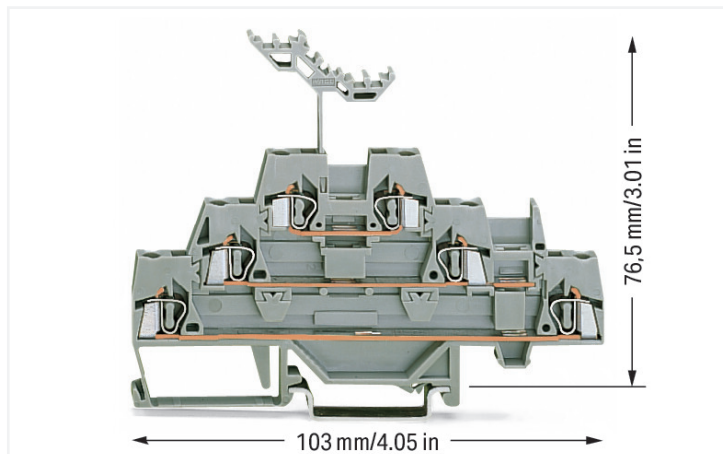


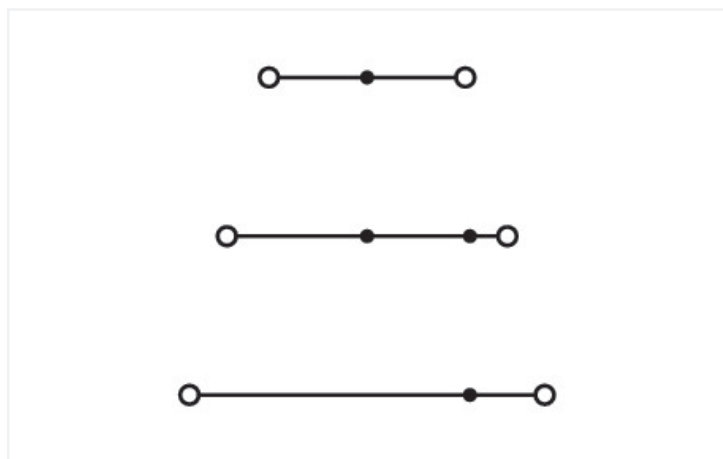
## Data Sheet | Item Number: 280-549

Triple-deck terminal block; Through/through/through terminal block; 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>; gray/gray/gray

<https://www.wago.com/280-549>



Color: ■ gray/gray/gray



Similar to illustration

### Electrical data

| Ratings per          | IEC/EN 60947-7-1 |     |    |
|----------------------|------------------|-----|----|
| Overvoltage category | III              | III | II |
| Pollution degree     | 3                | 2   | 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 $\Omega$ |

### 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<br>Aluminum |

## Connection 1

|  |   |
|--|---|
| Connectable conductor materials (note) | <p><b>Terminating Aluminum Conductors</b><br/>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 <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 be 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::<br/>2.5 mm<sup>2</sup> = 16 A<br/>4 mm<sup>2</sup> = 22 A</p> |
|--|---|

|                                |  |
|--------------------------------|--|
| 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                           |
| 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 | 76.5 mm / 3.012 inches |

## Mechanical data

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

## Material data

|                                    |  |
|------------------------------------|--|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | gray/gray/gray   |
| Material group                     | I  |
| Insulation material (main housing) | Polyamide (PA66)   |
| Flammability class per UL94        | V0   |
| Fire load                          | 0.328 MJ   |
| Weight                             | 18.4 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 9.0              | EC000897                         |
| ETIM 8.0              | EC000897                         |
| PU (SPU)              | 40 pcs                           |
| Packaging type        | Box                              |
| Country of origin     | CN                               |
| GTIN                  | 4050821293729                    |
| Customs tariff number | 85369010000                      |

### Environmental Product Compliance

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

### Approvals / Certificates

#### General approvals



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

#### Declarations of conformity and manufacturer's declarations

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

### Approvals for marine applications



| Approval  | Standard | Certificate Name |
|---|----------|------------------|
| ABS<br>American Bureau of Ship-<br>ping               | EN 60947 | 20-HG1941090-PDA |
| BV<br>Bureau Veritas S.A.                             | EN 60947 | 07436/F0 BV      |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd | -        | TAE00001V2       |
| LR<br>Lloyds Register                                 | EN 60947 | 91/20112 (E9)    |

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 280-549



Documentation

Additional Information

Technical Section

pdf  
2246.92 KB



Bid Text

280-549

19.02.2019

xml  
3.36 KB



280-549

02.03.2017

doc  
24.50 KB



CAD/CAE-Data

CAD data

2D/3D Models 280-549



CAE data

EPLAN Data Portal  
280-549



WSCAD Universe  
280-549



ZUKEN Portal 280-549



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; 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; similar 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; similar 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 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-302**  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-201**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-101**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; un-insulated; electro-tin plated; silver-colored



**Item No.: 216-202**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-102**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; un-insulated; electro-tin plated; silver-colored



**Item No.: 216-203**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-103**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; un-insulated; electro-tin plated



**Item No.: 216-204**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-104**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / 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 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st"); 5 pieces/strip; white

**Item No.: 280-471**  
Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; 5 pieces/strip; light gray

**Item No.: 280-472**  
Insulation stop; 0.75 - 1 mm<sup>2</sup>; 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 mm<sup>2</sup>; insulated; black

**Item No.: 709-111**  
Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black

**Item No.: 709-112**  
Wire commoning chain; 2.5 mm<sup>2</sup>; 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 mm<sup>2</sup>; insulated; 110 mm long; black



**Item No.: 249-123**

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



**Item No.: 249-127**

Push-in type wire jumper; 0.75 mm<sup>2</sup>; 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 mm<sup>2</sup>; gray



**Item No.: 249-141**

L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm<sup>2</sup>; 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

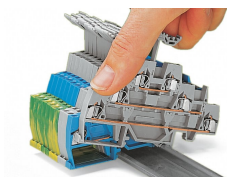


**Item No.: 210-657**

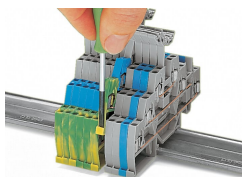
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

## Installation Notes

### Installation

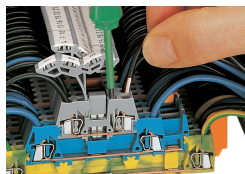


Snapping a terminal block onto the DIN-rail.



Removing a terminal block from the assembly.

### Conductor termination

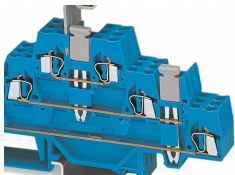


#### CAGE CLAMP® connection

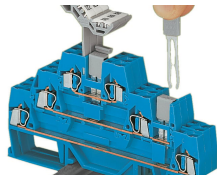
Inserting a conductor.

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

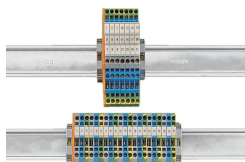
### Commoning



A vertical jumper commones 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.



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

### Marking



Labeling via WMB Multi Marking System.

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

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Current addresses can be found at: [www.wago.com](http://www.wago.com)