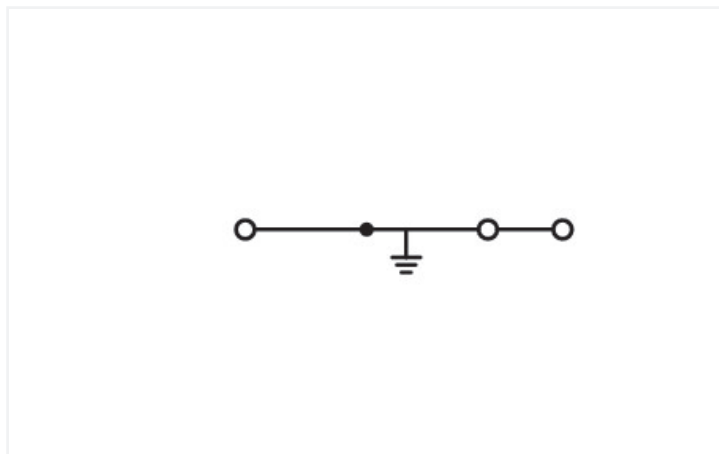


## Data Sheet | Item Number: 279-687/999-950

3-conductor ground terminal block; 1.5 mm<sup>2</sup>; suitable for Ex e II applications; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 1,50 mm<sup>2</sup>; green-yellow

<https://www.wago.com/279-687/999-950>



Color: ■ green-yellow

Similar to illustration

Similar to illustration

### Ground terminal block, 279 Series, CAGE CLAMP®

Easily, quickly and safely connect conductors with this ground terminal block (item number 279-687/999-950). Conductors can only be connected to this ground terminal block if their strip length is between 8 and 9 mm. Our ground terminal blocks create a direct connection between the mounting rail and the electrical conductors thanks to an integrated mounting foot. This connection ensures both electrical and mechanical stability between the conductors and the mounting adapter. Featuring conductor terminals along with CAGE CLAMP®, this product delivers reliable performance. Our CAGE CLAMP® connection offers a reliable and maintenance-free way to connect all types of conductors. You do not need to prepare the conductor in any way, such as crimping ferrules. The item's dimensions are (4 x 62.5 x 31.5) mm (width x height x depth). Depending on the conductor type, this ground terminal block is designed for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 1.5 mm<sup>2</sup>.

This through rail-mount terminal block is operated with an operating tool.

#### Electrical data

Ratings per	IEC/EN 60947-7-2		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	-
Rated impulse withstand voltage	-	-	-
Rated current	-	-	-

#### Ex information

Reference to hazardous areas	See application instructions in section "Knowledge and Downloads – Documentation – Additional Information: Technical Section; Technical Explanations"
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#### General information

Wiring direction	Front-entry wiring
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### Connection Data

Clamping units	3
Total number of potentials	1
Number of levels	1

### Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Solid conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG
Fine-stranded conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Wiring direction	Front-entry wiring

### Physical data

Width	4 mm / 0.157 inches
Height	62.5 mm / 2.461 inches
Depth from upper-edge of DIN-rail	27 mm / 1.063 inches
Depth	31.5 mm / 1.24 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	green-yellow
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.089 MJ
Weight	8.9 g

### Environmental requirements

Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C

### Commercial data

PU (SPU)	100 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454085094
Customs tariff number	85369010000

Product Classification	
UNSPSC	39121410
eCl@ss 10.0	27-14-11-41
eCl@ss 9.0	27-14-11-41
ETIM 9.0	EC000901
ETIM 10.0	EC000901
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
CAS-No.	7439-92-1
REACH Candidate List Substance	Lead
RoHS Compliance Status	Compliant, No Exemption
SCIP notification number (Austria)	bae16f62-1a70-4db7-b938-cd993de460d1
SCIP notification number (Belgium)	0536dcd6-c9c7-460e-a3f1-318f254f2434
SCIP notification number (Bulgaria)	8f3b2965-bd9d-45f4-ac57-8dc257900330
SCIP notification number (Czech Republic)	8c769972-31d8-45cf-942f-3b5b9f686562
SCIP notification number (Denmark)	3e7d4854-c5e6-4f59-a262-f1f72911e607
SCIP notification number (Finland)	e01dc032-e8f8-45e9-b5d8-e2da2609e191
SCIP notification number (France)	c7b16408-b41f-4bab-babe-df9f5b75c88a
SCIP notification number (Germany)	983b3495-93ec-41d8-9d14-11e81b80c86c
SCIP notification number (Hungary)	8cc01105-16d1-42b3-88d8-1f300b3e29ad
SCIP notification number (Italy)	857ecd2e-e307-45a0-a2d6-af33bacc131c
SCIP notification number (Netherlands)	644f5a2b-dd5a-4119-b376-178cde1bee2d
SCIP notification number (Poland)	ee783de8-f22b-4e72-a5a8-94344c90b550
SCIP notification number (Romania)	262dcd4b-b005-41b2-811d-48a8fa2d8d33
SCIP notification number (Sweden)	bd713562-e1c4-4c8d-872e-cc364b0af9d8

### Approvals / Certificates

General approvals		
Approval	Standard	Certificate Name
KEMA/KEUR DEKRA Certification B.V.	EN 60947	2160584.04
UL 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
BV Bureau Veritas S.A.	EN 60947	07436/F0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

Approvals for hazardous areas		
Approval	Standard	Certificate Name
ATEX Physikalisch Technische Bundesanstalt (PTB)	-	PTB 00 ATEX 3113 U (II 2 G Ex eb IIC Gb bzw. IM 2 Ex eb I Mb)

**Downloads**

**Environmental Product Compliance**

Compliance Search			
Environmental Product Compliance			↓
279-687/999-950			

**Documentation**

Bid Text			
279-687/999-950	19.02.2019	xml 3.11 KB	↓
279-687/999-950	28.02.2017	doc 24.00 KB	↓

**CAD/CAE-Data**

CAD data	
2D/3D Models	↓
279-687/999-950	

CAE data	
EPLAN Data Portal	↓
279-687/999-950	
WSCAD Universe	↓
279-687/999-950	
ZUKEN Portal	↓
279-687/999-950	

**1 Compatible Products**

**1.1 Required Accessories**

**1.1.1 End plate**

**1.1.1.1 End plate**



**Item No.: 279-341**  
End and intermediate plate; 2 mm thick; light gray

**Item No.: 209-191**  
Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide; orange

**Item No.: 279-342**  
Separator plate; 2 mm thick; oversized; light gray

**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

1.2.1.1 Mounting accessories



**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



**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; electrolytic copper; acc. to DIN 46228, Part 4/09.90; 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

1.2.3 Installation

1.2.3.1 Cover



**Item No.: 709-153**  
Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent

1.2.3.2 Cover carrier



**Item No.: 709-167**  
Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut; suitable for 279 to 282 and 880 Series rail-mounted terminal blocks; suitable for 264 Series miniature rail-mounted terminal blocks; suitable for 270 Series sensor and actuator terminal blocks; 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.: 279-470**

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.: 279-471**

Insulation stop; 0.25 mm<sup>2</sup>; 5 pieces/strip; dark gray

### 1.2.5 Jumper

#### 1.2.5.1 Jumper



**Item No.: 279-490**

Jumper; 10-way; insulated; gray

**Item No.: 279-482**

Jumper; 2-way; insulated; gray

**Item No.: 279-492**

Jumper; 2-way; insulated; gray

**Item No.: 279-483**

Jumper; 3-way; insulated; gray



**Item No.: 279-402**

Jumper; insulated; gray

**Item No.: 279-409**

Jumper; insulated; gray

**Item No.: 279-422**

Jumper; insulated; yellow-green

### 1.2.6 Marking

#### 1.2.6.1 Double marker carrier



**Item No.: 209-128**

Adaptor; gray

#### 1.2.6.2 Group marker carrier



**Item No.: 209-140**

Group marker carrier; gray

**Item No.: 209-141**

Group marker carrier; gray

**Item No.: 209-142**

Group marker carrier; gray

**Item No.: 249-105**

Group marker carrier; gray

#### 1.2.6.3 Marker



**Item No.: 793-4501/000-006**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; blue

**Item No.: 793-4501/000-014**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; brown

**Item No.: 793-4501/000-007**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; gray

**Item No.: 793-4501/000-023**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; green



**Item No.: 793-4501/000-017**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; light green

**Item No.: 793-4501/000-012**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; orange

**Item No.: 793-4501/000-005**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; red

**Item No.: 793-4501/000-024**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; violet

### 1.2.6.3 Marker



**Item No.: 793-4501**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; white

**Item No.: 793-4501/000-002**

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; yellow

**Item No.: 2009-114/000-006**

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; blue

**Item No.: 2009-114/000-007**

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; gray



**Item No.: 2009-114/000-023**

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; green

**Item No.: 2009-114/000-012**

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; orange

**Item No.: 2009-114/000-005**

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; red

**Item No.: 2009-114/000-024**

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; violet



**Item No.: 2009-114**

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; white

**Item No.: 2009-114/000-002**

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; yellow

### 1.2.7 Protective warning marker

#### 1.2.7.1 Cover



**Item No.: 279-415**

Protective warning marker; 5-pole; 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 Tool

#### 1.2.9.1 Operating tool



**Item No.: 210-719**

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

**Item No.: 210-648**

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short

**Item No.: 210-647**

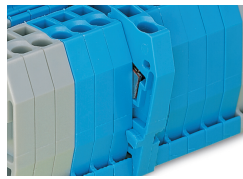
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

## Installation Notes

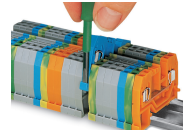
### Installation



Snapping a ground conductor block onto the DIN-rail automatically makes a direct electrical connection to the rail.

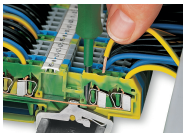


Quick assembly keys prevent reverse mounting.

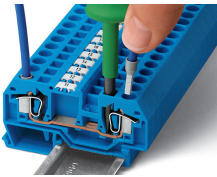


Removing a terminal block from the assembly.

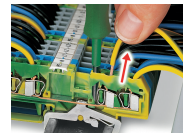
### Conductor termination



**CAGE CLAMP® connection**  
Inserting a conductor.



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



**CAGE CLAMP® connection**  
Removing a solid conductor.

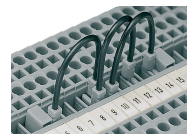


Inserting insulation stops.

### Commoning



Commoning ground conductor terminal blocks with through terminal blocks is possible in one direction only (via rear side of terminal block) using adjacent jumpers. WAGO recommends using yellow-green adjacent jumpers in addition to the required marking of these blocks.



**Push-In Type Wire Jumpers**  
When installing machines or control systems, it is often necessary to make an additional connection between two terminal blocks that are not next to each other on the rail. In such cases, WAGO's touch-proof, push-in type wire jumpers are the ideal solution.

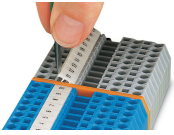
These jumpers are compatible with the following rail-mount terminal blocks:  
- 279 Series (1.5 mm<sup>2</sup>/16 AWG),  
- 280/775/780 Series (2.5 mm<sup>2</sup>/14 AWG)  
- 281/769/776/777/781 and 880 Series (4 mm<sup>2</sup>/12 AWG)  
They are available in three conductor lengths (60, 110 and 250 mm), allowing up to 60 terminal blocks to be commoned depending on their width (see table on the right).

The 280/775/780 and 281/776/777/781 Series Terminal Blocks accept two wire jumpers, allowing the use of commoning chains. Furthermore, the 280/769/775/780/880 and 281/776/777/781 Series allow both wire jumper and adjacent jumper to be simultaneously plugged into a same terminal block.



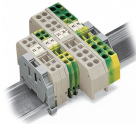
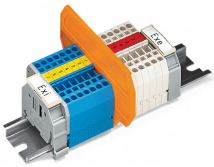
Commoning using comb-style jumper bars:  
Push comb-style jumper bars down until fully inserted.

## Marking



Labeling via WMB Multi Marking System.

## Ex application



### Separator plate for Ex e/Ex i applications

According to EN 50020, a minimum distance of 50 mm must be kept between live parts of Ex e and Ex i circuits. The use of Ex e/Ex i separators is a space-saving solution when Ex e and Ex i terminal blocks are mounted on a common DIN-rail.

For 279 ... 282 Series:

209-190 for 2-conductor terminal blocks

209-191 for 2-, 3-, 4-conductor terminal blocks

### End and intermediate plate

In order to meet creepage and clearance requirements for Ex e applications, it is necessary to insert an end or intermediate plate between a through and a ground conductor terminal block.