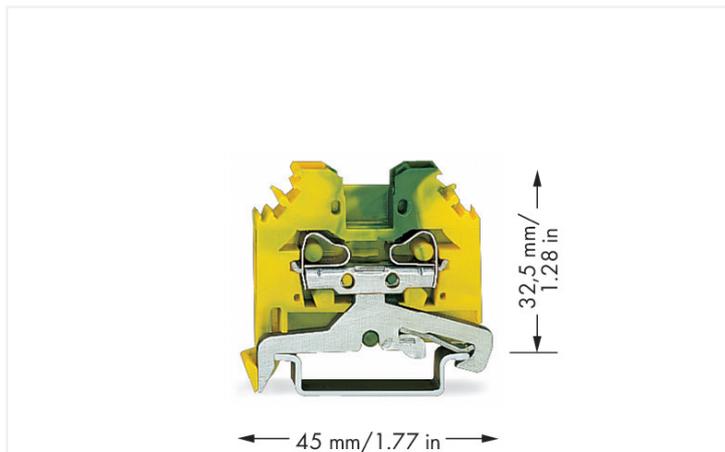


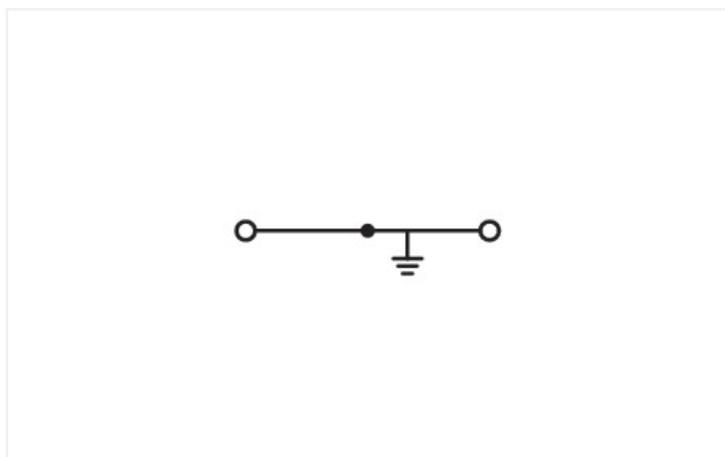
## Data Sheet | Item Number: 281-107

2-conductor ground terminal block; 4 mm<sup>2</sup>; lateral marker slots; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 4,00 mm<sup>2</sup>; green-yellow

<https://www.wago.com/281-107>



Color: ■ green-yellow



Similar to illustration

### Ground terminal block, 281 Series, CAGE CLAMP®

Connect conductors quickly and securely with this ground terminal block (item number 281-107). Strip lengths must be between 9 and 10 mm when connecting conductors to this ground terminal block. 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 outperforms the competition. Our renowned universal connection known as CAGE CLAMP® is industry-leading when it comes to connection technology and electrical interconnections. This ground terminal block is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 4 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			General information	
	Overvoltage category	III	III	II	Wiring direction
Pollution degree	3	2	2		
Nominal voltage	-	-	-		
Rated impulse withstand voltage	-	-	-		
Rated current	-	-	-		

## Connection Data

Clamping units	2	<b>Connection 1</b>	
Total number of potentials	1	Connection technology	CAGE CLAMP®
Number of levels	1	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 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 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 mm<sup>2</sup> = 16 A 4 mm<sup>2</sup> = 22 A</p>
		Solid conductor	0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG
		Fine-stranded conductor	0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG
		Strip length	9 ... 10 mm / 0.35 ... 0.39 inches
		Wiring direction	Side-entry wiring

### Physical data

Width	6 mm / 0.236 inches
Height	45 mm / 1.772 inches
Depth from upper-edge of DIN-rail	32.5 mm / 1.28 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	green-yellow
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.095 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)
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	IN
GTIN	4055143309271
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)	9c17b476-5c9e-4453-8559-58f72f0560a9
SCIP notification number (Belgium)	59a53fb7-15a7-41a8-bc9a-93282df2ff94
SCIP notification number (Bulgaria)	80c3d130-0919-49ef-889a-cd2455eb6969
SCIP notification number (Czech Republic)	3a2ea5e3-2d94-4c84-9cac-c4acfaa8663d
SCIP notification number (Denmark)	9b6ed5b1-6636-4bf5-b128-fe28c583d201
SCIP notification number (Finland)	e56d3fa7-e762-479a-97da-21d764fa1d91
SCIP notification number (France)	a4193d82-eeac-47cd-a92e-1820914fb339
SCIP notification number (Germany)	29d6ca8a-144a-4ba2-acee-e62c17fbc63b

**Environmental Product Compliance**

SCIP notification number (Hungary)	bc6eb6d1-6b1d-43c7-8615-4e57c54a4c03
SCIP notification number (Italy)	6874dd9f-8cc2-489f-bae3-f85e055bb85a
SCIP notification number (Netherlands)	9344bccb-d345-4224-af1e-0d2c93af069e
SCIP notification number (Poland)	e1e326e5-0c39-4007-b1c8-59ce6a8531c5
SCIP notification number (Romania)	04e3b75a-f8c4-427f-a6fd-16dea1176405
SCIP notification number (Sweden)	b916946a-118b-4ceb-bbc9-6f1a2fbf6ecd

**Approvals / Certificates**

**General approvals**



Approval	Standard	Certificate Name
CSA CSA Group	C22.2	1505034
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-107288
UL UL International Germany GmbH	UL 1059	E45172

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

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

**Approvals for marine applications**



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	24-0152298-PDA
BV Bureau Veritas S.A.	EN 60947	07436/G0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2
PRS Polski Rejestr Statków	-	TE/1094/880590/23

**Downloads**

**Environmental Product Compliance**

<b>Compliance Search</b>
Environmental Product Compliance 281-107

## Documentation

Bid Text			
281-107	19.02.2019	xml 3.04 KB	<a href="#">↓</a>
281-107	12.06.2017	doc 24.00 KB	<a href="#">↓</a>

## CAD/CAE-Data

CAD data	CAE data
2D/3D Models 281-107 <a href="#">↓</a>	EPLAN Data Portal 281-107 <a href="#">↓</a>
	WSCAD Universe 281-107 <a href="#">↓</a>
	ZUKEN Portal 281-107 <a href="#">↓</a>

## 1 Compatible Products

### 1.1 Required Accessories

#### 1.1.1 End plate

##### 1.1.1.1 End plate



**Item No.: 281-301**

End and intermediate plate; 3 mm thick; gray

**Item No.: 281-302**

End and intermediate plate; 3 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



**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 End plate

### 1.2.2.1 End plate



**Item No.: 281-332**

Separator plate; 2 mm thick; oversized; gray



**Item No.: 281-322**

Separator plate; 2 mm thick; oversized; orange

## 1.2.3 Ferrule

### 1.2.3.1 Ferrule



**Item No.: 216-241**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-242**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-243**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-244**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-246**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-106**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; un-insulated; electro-tin plated; silver-colored

## 1.2.4 Installation

### 1.2.4.1 Cover



**Item No.: 709-153**

Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent

### 1.2.4.2 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

### 1.2.4.3 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

1.2.5 Jumper

1.2.5.1 Jumper



**Item No.: 281-402**  
Jumper; insulated; gray



**Item No.: 281-409**  
Jumper; insulated; gray



**Item No.: 281-422**  
Jumper; insulated; yellow-green



**Item No.: 781-452**  
Staggered jumper; from 1 to 2; insulated; gray



**Item No.: 781-453**  
Staggered jumper; from 1 to 3; insulated; gray



**Item No.: 781-454**  
Staggered jumper; from 1 to 4; insulated; gray



**Item No.: 781-455**  
Staggered jumper; from 1 to 5; insulated; gray



**Item No.: 781-456**  
Staggered jumper; from 1 to 6; 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 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

1.2.6.2 Marker



**Item No.: 793-5501/000-006**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 793-5501/000-007**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 793-5501/000-023**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 793-5501/000-017**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 793-5501/000-012**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 793-5501/000-005**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red



**Item No.: 793-5501/000-024**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**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.: 793-5501/000-002**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



**Item No.: 793-501/000-006**  
WMB marking card; as card; not stretchable; plain; snap-on type; blue



**Item No.: 793-501/000-007**  
WMB marking card; as card; not stretchable; plain; snap-on type; gray



**Item No.: 793-501/000-023**  
WMB marking card; as card; not stretchable; plain; snap-on type; green



**Item No.: 793-501/000-017**  
WMB marking card; as card; not stretchable; plain; snap-on type; light green



**Item No.: 793-501/000-012**  
WMB marking card; as card; not stretchable; plain; snap-on type; orange



**Item No.: 793-501/000-005**  
WMB marking card; as card; not stretchable; plain; snap-on type; red



**Item No.: 793-501/000-024**  
WMB marking card; as card; not stretchable; plain; snap-on type; violet



**Item No.: 793-501**  
WMB marking card; as card; not stretchable; plain; snap-on type; white



**Item No.: 793-501/000-002**  
WMB marking card; as card; not stretchable; plain; snap-on type; yellow



**Item No.: 2009-115/000-006**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 2009-115/000-007**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

1.2.6.2 Marker



**Item No.: 2009-115/000-023**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 2009-115/000-017**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 2009-115/000-012**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



**Item No.: 2009-115/000-024**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



**Item No.: 2009-115**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



**Item No.: 2009-115/000-002**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.2.7 Protective warning marker

1.2.7.1 Cover



**Item No.: 281-405**  
Protective warning marker; with high-voltage symbol, black; for 5 terminal blocks; 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.: 249-147**  
B-type test plug module; modular; 2,50 mm<sup>2</sup>; gray



**Item No.: 280-404**  
Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm<sup>2</sup> - 4 mm<sup>2</sup> tbs; gray



**Item No.: 209-170**  
Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm<sup>2</sup> - 10 mm<sup>2</sup> tbs; gray



**Item No.: 281-407**  
Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm<sup>2</sup> - 2.5 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

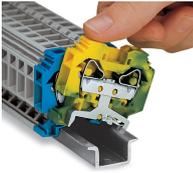


**Item No.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



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

## Installation Notes



Snapping a terminal block onto the DIN-rail.  
Ground conductor terminal blocks snap onto the rail in the same way as through terminal blocks, but automatically make a direct electrical connection to the rail. After mounting, sliding the blocks on the rail is not possible.



Removing a terminal block from the DIN-rail.  
When mounting on the DIN-35 rail, ensure that open sides of terminal blocks face in the same direction. Both mounting feet and removal slots are on the same side for all terminal blocks, making it possible to visually ensure blocks are facing in same direction.



### 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.



Push jumper down until fully inserted. 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.



When operating the handles beyond the locked position, the ratchet allows the tool to open and be removed from the terminal block.



Labeling via WMB Multi Marking System.