3-conductor ground terminal block; 16 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<sup>®</sup>; 16,00 mm<sup>2</sup>; green-yellow



https://www.wago.com/283-677/999-950

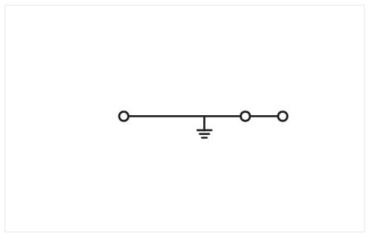




Color: green-yellow

Similar to illustration

Similar to illustration



Similar to illustration

#### Ground terminal block, 283 Series, operating tool

Easily, quickly and safely connect conductors with this ground terminal block (item number 283-677/999-950). 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. Strip lengths must be between 16 mm and 17 mm when connecting conductors to this ground terminal block. This product features conductor terminals and utilizes CAGE CLAMP®. Our celebrated universal connection known as CAGE CLAMP® is the industry standard when it comes to connection technology and electrical interconnections. This ground terminal block is suitable for conductor cross sections ranging from 0.2 mm² to 16 mm². It comes with one level and three clamping points that you can use to connect a single potential. The green-yellow housing is made of polyamide (PA66) for insulation. An operating tool is used to operate this through rail-mount terminal blocks. These through rail-mount terminal blocks are mounted using DIN-35 rails.. The front-entry wiring allows you to connect copper conductors.

#### **Notes**

Safety Information

Notice: This (ground) earth conductor terminal block cannot be commoned with adjacent jumpers.

Electrical data			
Ratings per	IEC	C/EN 60947-	7-2
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	-
Rated surge voltage	-	-	-
Rated current	-	-	-

Ex information	
Reference hazardous areas	See application instructions in section "Knowledge and Downloads – Documentation – Additio-

nal Information: Technical Section; Technical Explications"

### Data Sheet | Item Number: 283-677/999-950 https://www.wago.com/283-677/999-950



ata			
ınits	3	Connection 1	
ber of potentials	1	Connection technology	CAGE CLAMP®
r of levels	1	Actuation type	Operating tool
		Connectable conductor materials	Copper
		Solid conductor	$0.2 \dots 16 \text{ mm}^2 / 24 \dots 6 \text{ AWG}$
		Fine-stranded conductor	0.2 16 mm² / 24 6 AWG
		Strip length	16 17 mm / 0.63 0.67 inches
		Wiring direction	Front-entry wiring

Physical data	
Width	12 mm / 0.472 inches
Height	104.5 mm / 4.114 inches
Depth from upper-edge of DIN-rail	37.5 mm / 1.476 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
	information on material specifications can be round here
Color	green-yellow
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.577 MJ
Weight	57.3 a

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

Commercial data	
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)	20 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454089139
Customs tariff number	85369010000

https://www.wago.com/283-677/999-950



Environmental Product Compliance	
CAS-No.	7439-92-1
REACH Candidate List Substance	Lead
RoHS Compliance Status	Compliant,No Exemption
SCIP notification number (Austria)	75f75a9d-582b-4e89-a3b2-7174f9e06477
SCIP notification number (Belgium)	e3a487b4-2c9e-4816-bf5d-db3ade4a7a33
SCIP notification number (Bulgaria)	f8ea226b-b05f-400e-b2fd-87189fb74e84
SCIP notification number (Czech Republic)	0f554cf5-87a0-4b4c-ad6a-7933dcaf6fb0
SCIP notification number (Denmark)	2fce8ef2-cf97-431b-9d12-badaab605ca1
SCIP notification number (Finland)	3c5bd4a0-b00f-4307-87bb-c1cd4c5f12dc
SCIP notification number (France)	ab8170c8-7933-47bf-8c73-cefe254469d7
SCIP notification number (Germany)	3e150399-2de5-4b6e-a6ba-444c57094f12
SCIP notification number (Hungary)	84091510-55ee-4145-a068-c2494faa8a30
SCIP notification number (Italy)	7ccc688c-020e-4116-9e15-696e1c5c3246
SCIP notification number (Netherlands)	645c7724-62e1-4183-bdb7-33c4fe42e5e2
SCIP notification number (Poland)	135d6091-a3ca-414c-a7f3-0fa6580550ba
SCIP notification number (Romania)	03937ac5-752c-49e9-a25d-88150721c975
SCIP notification number (Sweden)	0fc4d399-631d-4db4-946b-5964168b0450

#### Approvals / Certificates

#### General approvals









Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7895
CSA DEKRA Certification B.V.	C22.2 No. 158	1536072
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-120777
UL UL International Germany GmbH	UL 1059	E45172

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

Approval	Standard	Certificate Name
ATEX-Attestation of Conformity WAGO GmbH & Co. KG	-	-
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

#### Approvals for marine applications







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

#### Approvals for hazardous areas







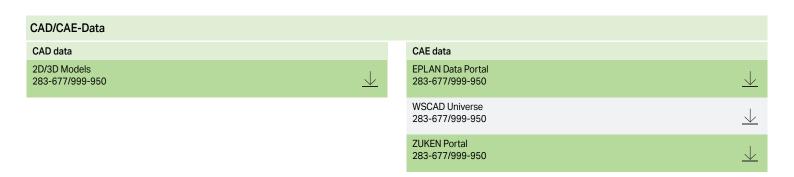
Approval	Standard	Certificate Name
AEx UL International Germany GmbH c/o Physikalisch Technische Bundesanstalt	UL 60079	E185892 (AEx e II resp. Ex e II)
ATEX Physikalisch Technische Bundesanstalt (PTB)	-	PTB 98 ATEX 3132 U (II 2 G Ex eb IIC Gb bzw. I M 2 Ex eb I Mb)
CCC CNEX	GB/T 3836.3	2020312313000232 (Ex eb IIC Gb, Ex eb I Mb)
IECEx Physikalisch Technische Bundesanstalt	IEC 60079-0	IECEx PTB 03.0004U (Ex eb IIC Gb or Ex eb I Mb)

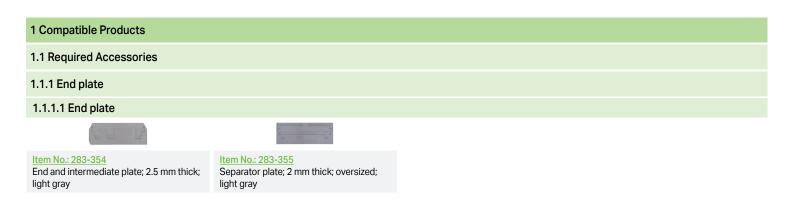
https://www.wago.com/283-677/999-950



# Downloads Environmental Product Compliance Compliance Search Environmental Product Compliance 283-677/999-950







# 1.2 Optional Accessories 1.2.1 Cover 1.2.1.1 Cover

Item No.: 283-400

Finger guard; touchproof cover protects unused conductor entries; yellow

https://www.wago.com/283-677/999-950



#### 1.2.2 DIN-rail

#### 1.2.2.1 Mounting accessories



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

#### 1.2.3 Ferrule

#### 1.2.3.1 Ferrule



Item No.: 216-284

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.: 216-289

Ferrule; Sleeve for 10 mm<sup>2</sup> / AWG 8; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90: red

Item No.: 216-286

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.: 216-287

Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item No.: 216-288

Ferrule; Sleeve for 6 mm<sup>2</sup> / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

#### 1.2.4 Installation

#### 1.2.4.1 Cover



Item No.: 709-154

Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent

#### 1.2.4.2 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

https://www.wago.com/283-677/999-950



#### 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 DINrail 35 x 15 and 35 x 7.5; gray

#### 1.2.5 Marking

#### 1.2.5.1 Group marker carrier



Item No.: 249-105

Group marker carrier; gray

#### 1.2.5.2 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.: 793-5501/000-012

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.: 793-5501/000-002

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.: 793-501/000-017

WMB marking card; as card; not stretchable; plain; snap-on type; light green



Item No.: 793-501

WMB marking card; as card; not stretchable; plain; snap-on type; white



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

WMB-Inline: for Smart Printer: 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

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.: 793-5501/000-005

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.: 793-501/000-006

WMB marking card; as card; not stretchable; plain; snap-on type; blue



Item No.: 793-501/000-012

WMB marking card; as card; not stretchable; plain; snap-on type; orange



Item No.: 793-501/000-002

WMB marking card; as card; not stretchable; plain; snap-on type; yellow



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.: 2009-115/000-002

WMB-Inline: for Smart Printer: 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



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.: 793-5501/000-024

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.: 793-501/000-007

WMB marking card; as card; not stretchable; plain; snap-on type; gray



Item No.: 793-501/000-005

WMB marking card; as card; not stretchable; plain; snap-on type; red



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.: 2009-115/000-012

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

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

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.: 793-501/000-023

WMB marking card; as card; not stretchable; plain; snap-on type; green



Item No.: 793-501/000-024

WMB marking card; as card; not stretchable; plain; snap-on type; violet



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



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

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#### 1.2.6 Protective warning marker

#### 1.2.6.1 Cover



Item No.: 283-415

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

#### 1.2.7 Tool

#### 1.2.7.1 Operating tool



#### Item No.: 210-721

Operating tool; Blade: 5.5 x 0.8 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.

#### Marking



Labeling via WMB Multi Marking System.

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## W/AGO

#### 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.

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

Current addresses can be found at:: www.wago.com

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