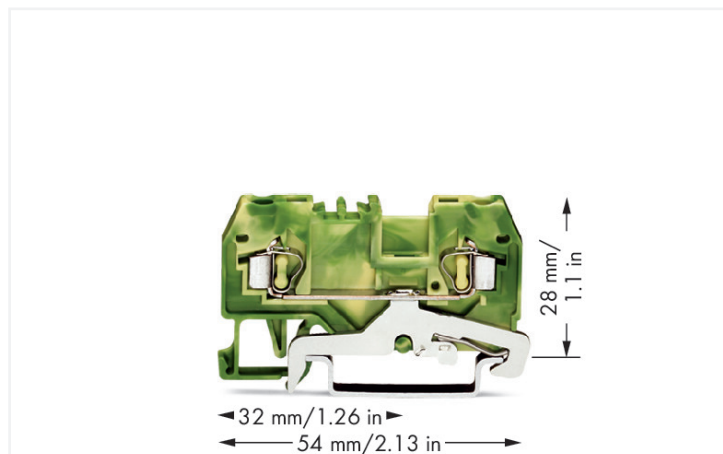


Data Sheet | Item Number: 280-907/999-950

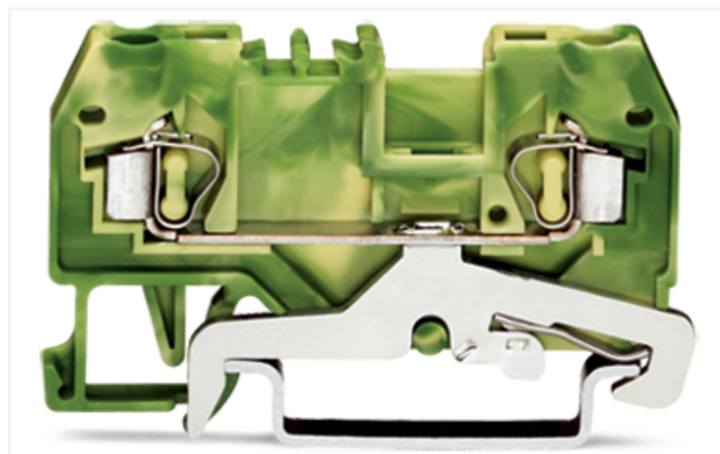
2-conductor ground terminal block; 2.5 mm²; suitable for Ex e II applications; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; green-yellow

<https://www.wago.com/280-907/999-950>

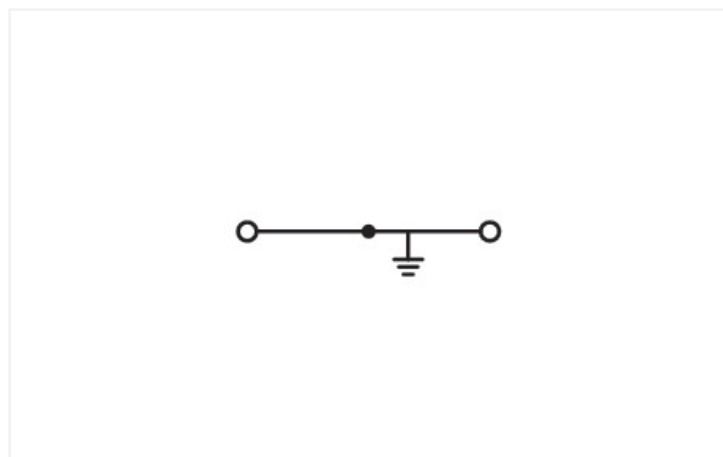


Color: ■ green-yellow

Similar to illustration



Similar to illustration



Similar to illustration

Ground terminal block, 280 Series, operating tool

Our ground terminal block (item number 280-907/999-950) is the perfect way to connect conductors quickly and securely. Strip lengths must be between 8 and 9 mm when connecting conductors to this ground terminal block. Ground terminal blocks connect directly to the mounting rail via an integrated contact foot. This creates an electrical and mechanical connection between the electrical conductors and the mounting adapter. Featuring conductor terminals along with CAGE CLAMP®, this product is highly versatile. Our reliable and maintenance-free CAGE CLAMP® connection makes it easy to connect all types of conductors without having to prepare the conductor. For example, you don't need to crimp ferrules. Depending on the type of conductor, this ground terminal block is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm².

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 Explications”

General information	
Wiring direction	Front-entry wiring

Connection Data			
Clamping units	2	Connection 1	
Total number of potentials	1	Connection technology	CAGE CLAMP®
Number of levels	1	Actuation type	Operating tool
		Connectable conductor materials	Copper
		Solid conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
		Fine-stranded conductor	0.08 ... 2.5 mm² / 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	54 mm / 2.126 inches	
Depth from upper-edge of DIN-rail	28 mm / 1.102 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	green-yellow
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.077 MJ
Weight	9.2 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	4045454108144
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)	d14e543b-05fe-4bc6-9375-cfdb87d236b7
SCIP notification number (Belgium)	8c95777f-ddc6-47eb-80f7-935c72b56294
SCIP notification number (Bulgaria)	7f4ae827-e1fe-40e9-b793-f5bc1aaa6ce3
SCIP notification number (Czech Republic)	5c6f59a5-2915-440d-9aa0-0c2decbed6e4
SCIP notification number (Denmark)	df97c799-5bd6-4978-a327-b8f2accd53d4
SCIP notification number (Finland)	a6e5c966-754f-4182-8f5e-035634d89dc8
SCIP notification number (France)	23eac2d-2aa2-4189-b258-b9f32d6fc76e
SCIP notification number (Germany)	28bd4545-10b9-474a-8591-df2b8d048af3
SCIP notification number (Hungary)	09763eb5-07b0-44ee-a8c0-24ea210b67cf
SCIP notification number (Italy)	0abfa0c1-2c3d-4599-aabd-ed69fef609fa
SCIP notification number (Netherlands)	31fbd689-d71e-4f7a-a781-b59b5a30b0a8
SCIP notification number (Poland)	123fe025-d67c-4a40-ad4c-ae5217129361
SCIP notification number (Romania)	2924a088-88fd-4eeb-b5fb-a73222dc23c7
SCIP notification number (Sweden)	23644f9c-197e-4771-9f80-f0063badd610

Approvals / Certificates																							
General approvals		Declarations of conformity and manufacturer's declarations																					
 <table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>CSA DEKRA Certification B.V.</td><td>C22.2</td><td>1536071</td></tr><tr><td>KEMA/KEUR DEKRA Certification B.V.</td><td>EN 60947</td><td>71-154769</td></tr><tr><td>UL Underwriters Laboratories Inc.</td><td>UL 1059</td><td>20190731-E45172</td></tr></table>		Approval	Standard	Certificate Name	CSA DEKRA Certification B.V.	C22.2	1536071	KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-154769	UL Underwriters Laboratories Inc.	UL 1059	20190731-E45172	<table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Conformity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Conformity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr></table>	Approval	Standard	Certificate Name	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-
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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 Ship- ping	EN 60947	24-0152298-PDA
BV Bureau Veritas S.A.	EN 60947	07436/G0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

Approvals for hazardous areas

		
Approval	Standard	Certificate Name
ATEX Physikalisch Technische Bundesanstalt	IEC 60079-0	PTB 99 ATEX 3109 U (Ex eb IIC, IM 2 Ex eb IMb)
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)

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 280-907/999-950

Documentation

Bid Text			
280-907/999-950	19.02.2019	xml 3.19 KB	
280-907/999-950	28.02.2017	doc 24.00 KB	

CAD/CAE-Data

CAD data
2D/3D Models 280-907/999-950

CAE data
EPLAN Data Portal 280-907/999-950
WSCAD Universe 280-907/999-950
ZUKEN Portal 280-907/999-950



1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 280-356
End and intermediate plate; 2.5 mm thick; light gray



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



Item No.: 209-190
Separator for Ex e/Ex i applications; 3 mm thick; 90 mm wide; orange



Item No.: 280-357
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



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



Item No.: 216-101
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; 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 / 18 AWG; 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; uninsulated; 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; uninsulated; electro-tin plated; silver-colored



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.: 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.: 280-422
Jumper; insulated; yellow-green



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

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.: 793-5501/000-006

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



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.: 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 Tool

1.2.9.1 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



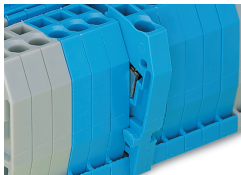
Item No.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

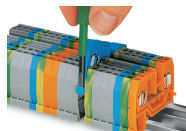
Installation



Snapping a 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.

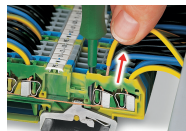
Conductor termination



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.

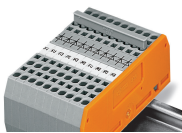
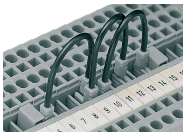
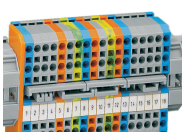
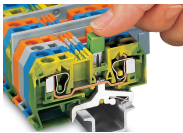


CAGE CLAMP® connection
Removing a solid conductor.



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.

Staggered jumpers are suitable for sophisticated circuit requirements. Push jumpers down until fully inserted!

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:

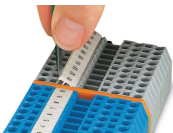
- 279 Series (1.5 mm²/16 AWG),
- 280/775/780 Series (2.5 mm²/14 AWG)
- 281/769/776/777/781 and 880 Series (4 mm²/12 AWG)

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.

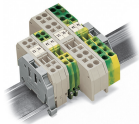
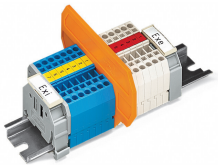
Commoning using comb-style jumper bars: Push comb-style jumper bars down until fully inserted.

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.

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

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