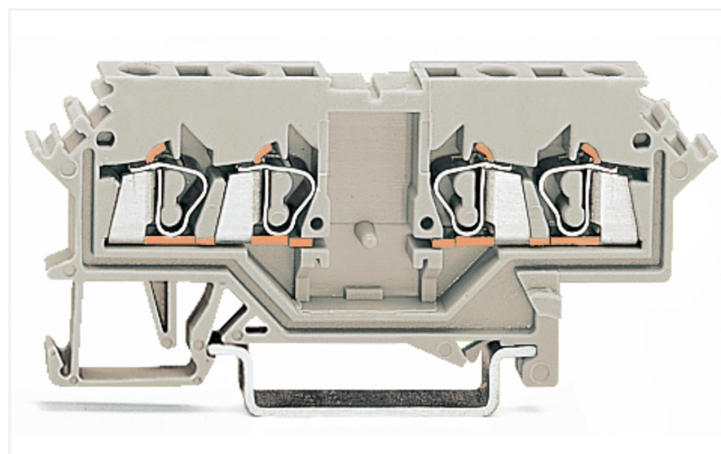
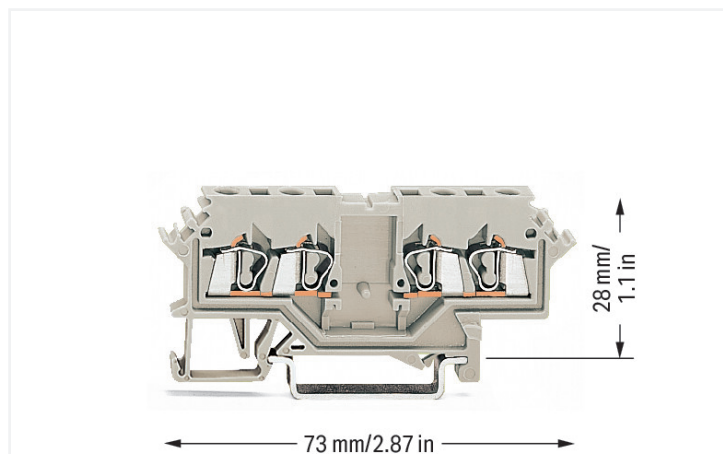


Data Sheet | Item Number: 280-989

Double potential terminal block; 2.5 mm²; suitable for Ex e II applications; lateral marker slots; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; light gray

<https://www.wago.com/280-989>



Color: ■ light gray

Double potential terminal block, 280 Series, operating tool

Our double potential terminal block (item number 280-989) ensures effortless electrical installations. Ensure that the strip lengths are between 8 and 9 mm when connecting conductors to this double potential terminal block. WAGO's double potential terminal blocks are a space-saving solution that boasts two current bars with different potentials on one level. You can separately through-wire a single potential on each side of the terminal block. The compact design saves space without sacrificing functionality. Featuring conductor terminals along with CAGE CLAMP®, this product outperforms the competition. 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. This double potential 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.

Notes

Safety Information

Notice: This double potential terminal block cannot be commoned via adjacent jumpers.

Electrical data

Ratings per	IEC/EN 60947-7-1		
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 "Downloads – Documentation – Additional Information: Technical Section; Technical Explanations"
Rated voltage EN (Ex e II)	550 V
Rated current (Ex e II)	22 A

Power Loss

Power loss, per pole (potential)	0.6437 W
Rated current I _N for power loss specification	22 A
Resistance value for specified, current-dependent power loss	0.00133 Ω

General information

Wiring direction	Front-entry wiring
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Connection Data

Clamping units	4
Total number of potentials	2
Number of levels	1

Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 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	73 mm / 2.874 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	Side marking

Material data

Note (material data)	Information on material specifications can be found here
Color	light gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.142 MJ
Weight	8.2 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	DE
GTIN	4044918395700
Customs tariff number	85369010000

Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 9.0	EC000897
ETIM 10.0	EC000897
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

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



Approval	Standard	Certificate Name
CSA DEKRA Certification B.V.	C22.2	1536071
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-154769
UR UL International Germany GmbH	UL 1059	E45172

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

Approvals for marine applications **Approvals for hazardous areas**



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	EN 60947	24-0152298-PDA
BV Bureau Veritas S.A.	EN 60947	07436/G0 BV
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2



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	IEC 60079-0	PTB 99 ATEX 3109 U (Ex eb IIC, IM 2 Ex eb IMb)
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 280-989

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 280-989	EPLAN Data Portal 280-989
	WSCAD Universe 280-989
	ZUKEN Portal 280-989

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate

Item No.: 280-364 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.: 209-192 Separator for Ex e/Ex i applications; 3 mm thick; 125.5 mm wide; orange	Item No.: 280-365 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; un-insulated; 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 / AWG 20; un-insulated; 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; un-insulated; 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; un-insulated; electro-tin plated; silver-colored

1.2.3 Installation

1.2.3.1 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

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.: [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 Tool

1.2.8.1 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

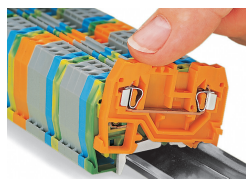


Item No.: 210-657

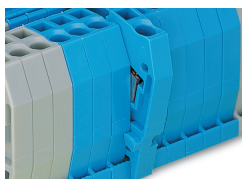
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

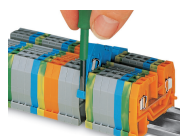
Installation



Snapping a terminal block onto the DIN-rail.

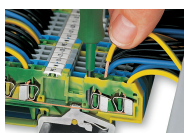


Quick assembly keys prevent reverse mounting.



Removing a terminal block from the assembly.

Conductor termination

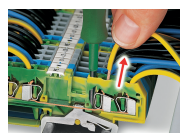


CAGE CLAMP® connection

Inserting a conductor.



Inserting insulation stops.



CAGE CLAMP® connection

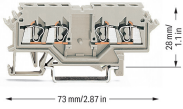
Removing a solid conductor.

Commoning



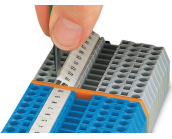
Commoning using comb-style jumper bars:

Push comb-style jumper bars down until fully inserted.

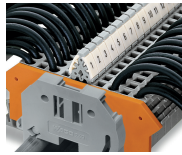


WAGO's front-entry double potential terminal blocks save space. Two independent feedthrough circuits are placed in one insulated housing on one level in just 5 mm. This achieves a width of just 2.5 mm per potential versus standard through terminal blocks. Input and output of a circuit are placed on the same side of the terminal block. Both circuits can be individually marked according to input and output.

Marking



Labeling via WMB Multi Marking System.



Terminal block marking with double marker carriers (209-128) Terminal blocks with side marking