

Data Sheet | Item Number: 282-993

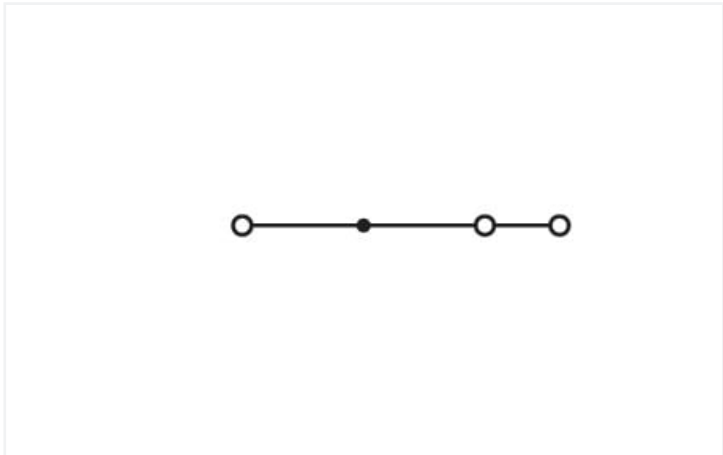
3-conductor through terminal block; 6 mm²; suitable for Ex e II applications; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 6,00 mm²; light gray

<https://www.wago.com/282-993>



Color: ■ light gray

Similar to illustration



Similar to illustration

Through terminal block, 282 Series, operating tool

Our through terminal block (item number 282-993) makes connecting wires quick and easy. Whether for use in industry or building installations, our rail-mount through terminal blocks make it easy to quickly and securely connect electrical conductors. They're perfect for either classic through-wiring or distributing potential, depending on the variant. Conductors can only be connected to this through terminal block if their strip length is between 12 mm and 13 mm. Featuring conductor terminals along with CAGE CLAMP®, this connector 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 through terminal block is suitable for conductor cross sections ranging from 0.2 mm² to 6 mm². It has one level. You can connect a single potential using the three clamping points. The light gray housing is made of polyamide (PA66) for insulation. This through rail-mount terminal block is operated with an operating tool. These through rail-mount terminal blocks are mounted using DIN-35 rails.. You can connect copper conductors thanks to front-entry wiring.

Electrical data				
Ratings per		IEC/EN 60947-7-1		
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 – Additional Information: Technical Section; Technical Explanations"		
Rated voltage EN (Ex e II)		550 V		
Rated current (Ex e II)		39 A		

Power Loss	
Power loss, per pole (potential)	1.1864 W
Rated current I _N for specified power loss	39 A
Resistance value for specified, current-dependent power loss	0.00078 Ω



Connection data																
Clamping units	3	<div>Connection 1</div> <table><tr><td>Connection technology</td><td>CAGE CLAMP®</td></tr><tr><td>Actuation type</td><td>Operating tool</td></tr><tr><td>Connectable conductor materials</td><td>Copper</td></tr><tr><td>Solid conductor</td><td>0.2 ... 6 mm² / 24 ... 10 AWG</td></tr><tr><td>Fine-stranded conductor</td><td>0.2 ... 6 mm² / 24 ... 10 AWG</td></tr><tr><td>Strip length</td><td>12 ... 13 mm / 0.47 ... 0.51 inches</td></tr><tr><td>Wiring direction</td><td>Front-entry wiring</td></tr></table>	Connection technology	CAGE CLAMP®	Actuation type	Operating tool	Connectable conductor materials	Copper	Solid conductor	0.2 ... 6 mm² / 24 ... 10 AWG	Fine-stranded conductor	0.2 ... 6 mm² / 24 ... 10 AWG	Strip length	12 ... 13 mm / 0.47 ... 0.51 inches	Wiring direction	Front-entry wiring
Connection technology	CAGE CLAMP®															
Actuation type	Operating tool															
Connectable conductor materials	Copper															
Solid conductor	0.2 ... 6 mm² / 24 ... 10 AWG															
Fine-stranded conductor	0.2 ... 6 mm² / 24 ... 10 AWG															
Strip length	12 ... 13 mm / 0.47 ... 0.51 inches															
Wiring direction	Front-entry wiring															
Total number of potentials	1															
Number of levels	1															

Physical data		
Width	Width	8 mm / 0.315 inches
Height	Height	93 mm / 3.661 inches
Depth from upper-edge of DIN-rail	Depth from upper-edge of DIN-rail	32.5 mm / 1.28 inches

Mechanical data		
Mounting type	Mounting type	DIN-35 rail
Marking level	Marking level	Center marking

Material data		
Note (material data)	Information on material specifications can be found here	
Color	Color	light gray
Material group	Material group	I
Insulation material (main housing)	Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	Flammability class per UL94	V0
Fire load	Fire load	0.335 MJ
Weight	Weight	21.5 g

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

Commercial data		
eCl@ss 10.0	eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	eCl@ss 9.0	27-14-11-20
ETIM 9.0	ETIM 9.0	EC000897
ETIM 8.0	ETIM 8.0	EC000897
PU (SPU)	PU (SPU)	50 pcs
Packaging type	Packaging type	Box
Country of origin	Country of origin	DE
GTIN	GTIN	4044918386203
Customs tariff number	Customs tariff number	85369010000



Environmental Product Compliance	
RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7894	ATEX-Attestation of Con- formity WAGO GmbH & Co. KG	-	-
CSA DEKRA Certification B.V.	C22.2 No. 158	1505033	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-120778	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UL UL International Germany GmbH	UL 1059	E45172			

Approvals for marine applications			Approvals for hazardous areas		
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	EN 60947	20-HG1941090-PDA	AEx UL International Germany GmbH c/o Physikalisch Technische Bundesanstalt	UL 60079	E185892 (AEx e II resp. Ex e II)
BV Bureau Veritas S.A.	EN 60947	07436/F0 BV	ATEX Physikalisch Technische Bundesanstalt (PTB)	-	PTB 98 ATEX 3131 U (II 2 G Ex eb IIC Gb bzw. I M 2 Ex eb I Mb)
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2	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 282-993	



Documentation

Additional Information		Bid Text	
Technical Section	pdf 2246.92 KB	282-993 19.02.2019	xml 3.21 KB
		282-993 28.02.2017	doc 24.00 KB

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 282-993	EPLAN Data Portal 282-993
	WSCAD Universe 282-993
	ZUKEN Portal 282-993

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate

Item No.: 282-341 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.: 282-342 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
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.: 216-262
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item No.: 216-263
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item No.: 216-264
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item No.: 216-266
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



Item No.: 216-267
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

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 Jumper

1.2.4.1 Jumper



Item No.: 282-402
Jumper; insulated; gray



Item No.: 282-409
Jumper; insulated; gray



Item No.: 282-424
Jumper; insulated; orange



Item No.: 282-422
Jumper; insulated; yellow-green



Item No.: 709-110
Wire commoning chain; 2.5 mm²; insulated; black



Item No.: 709-111
Wire commoning chain; 2.5 mm²; insulated; black



Item No.: 709-112
Wire commoning chain; 2.5 mm²; insulated; black



1.2.5 Marking

1.2.5.1 Group marker carrier



[Item No.: 209-143](#)
Group marker carrier; gray

[Item No.: 209-144](#)
Group marker carrier; gray

[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.: 793-5501/000-014](#)
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown

[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

1.2.6 Protective warning marker

1.2.6.1 Cover



Item No.: 282-415
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.7 Tool

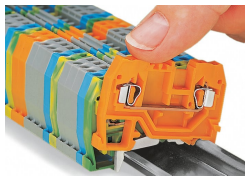
1.2.7.1 Operating tool



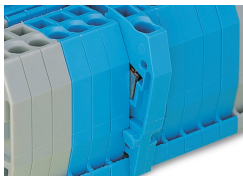
Item No.: 210-721
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

Installation Notes

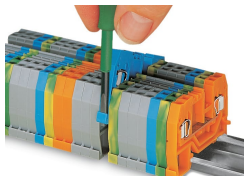
Installation



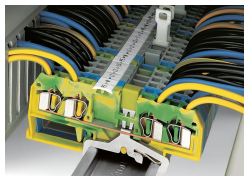
Snapping a terminal block onto the DIN-rail.



Quick assembly keys prevent reverse mounting.

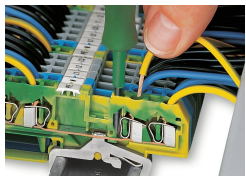


Removing a terminal block from the assembly.

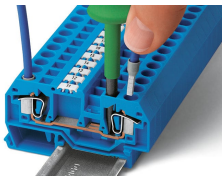


Steel DIN-rails are not suited for PEN (ground and N-conductor) applications per EN 60947-7-2 (VDE 0611, Part 3).

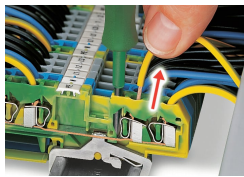
Conductor termination



CAGE CLAMP® connection
Inserting a conductor.

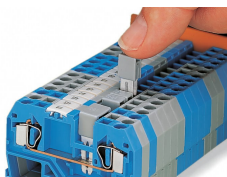


CAGE CLAMP® connection
Inserting a conductor.
With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.



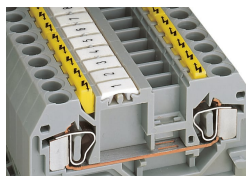
CAGE CLAMP® connection
Removing a solid conductor.

Commoning



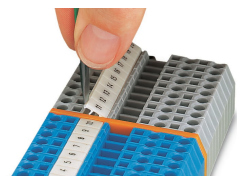
Commoning using an adjacent jumper.
Push jumper down until fully inserted!

Cover



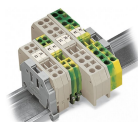
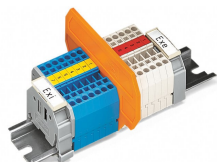
Protective warning markers inserted into the operating slots

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.