Data Sheet | Item Number: 284-691
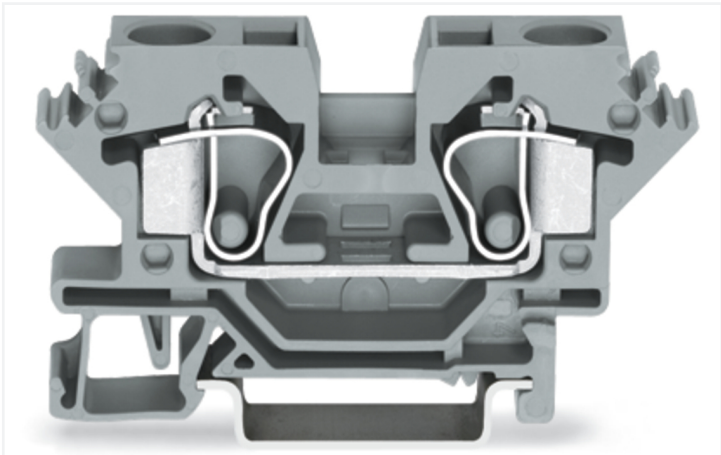
2-conductor through terminal block; 10 mm²; suitable for Ex e II applications; lateral marker slots; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 10,00 mm²; light gray

https://www.wago.com/284-691

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Color: ▪ light gray   Similar to illustration

Through terminal block, 284 Series, CAGE CLAMP®

Easily, quickly and safely connect conductors with this through terminal block (item number 284-691). Whether in industrial or building applications, our rail-mount through terminal blocks are the perfect solution to quickly and securely connect electrical conductors. Depending on the model, you can use them for either typical through-wiring or potential distribution. Strip lengths must be between 12 mm and 13 mm when connecting conductors to this through terminal block. This product features conductor terminals and utilizes CAGE CLAMP®. Our celebrated universal connection known as CAGE CLAMP® is the industry standard for connection technology and electrical interconnections. Depending on the type of conductor, this through terminal block is designed for conductor cross sections ranging from 0.2 mm² to 10 mm². It features one level and two clamping points that you can use to connect a single potential. The light gray housing is made of polyamide (PA66) for insulation. An operating tool is used to operate this through rail-mount terminal block. These through rail-mount terminal blocks are mounted using DIN-35 rails.. Conductors made of copper can be connected via 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 Explications"
Rated voltage EN (Ex e II)	550 V
Rated current (Ex e II)	53 A

Power Loss

Power loss, per pole (potential)	1.573 W
Rated current I_N for specified power loss	53 A
Resistance value for specified, current-dependent power loss	0.00056 Ω

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Connection data

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

Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Solid conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor	0.2 … 10 mm² / 24 … 8 AWG
Strip length	12 … 13 mm / 0.47 … 0.51 inches
Wiring direction	Front-entry wiring

Physical data

Width	10 mm / 0.394 inches
Height	69 mm / 2.717 inches
Depth from upper-edge of DIN-rail	33.5 mm / 1.319 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	0.261 MJ
Weight	18.8 g

Environmental requirements

Processing temperature	-35 … +85 ℃
Continuous operating temperature	-60 … +105 ℃

Commercial data

PU (SPU)	25 pcs
Packaging type	Box
Country of origin	IN
GTIN	4066966316612
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 8.0	EC000897
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7379
CSA CSA Group	C22.2	1536073
KEMA/KEUR DEKRA Certification B.V.	EN 60947	2178517.01
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	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	EN 60947	20-HG1941090-PDA
DNV GL Det Norske Veritas, Germanischer 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)	EN 60079	PTB 98 ATEX 3133 U (II 2 G Ex eb IIC bzw. I M 2 Ex eb I Mb)
CCC CNEX	GB/T 3836.3	2020312313000176 (Ex eb IIC Gb, Ex eb I Mb)
IECEx Physikalisch Technische Bundesanstalt (PTB)	IEC 60079	IECEx PTB 14.0046U (Ex eb IIC Gb and Ex eb I Mb)

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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 284-691   ↓

CAD/CAE-Data

CAD data

2D/3D Models 284-691   ↓

CAE data

EPLAN Data Portal
284-691   ↓

WSCAD Universe
284-691   ↓

ZUKEN Portal 284-691   ↓

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate

Item No.: 284-318
End and intermediate plate; 2.5 mm thick;
light gray

Item No.: 284-338
Separator plate; 2 mm thick; oversized;
light gray

1.2 Optional Accessories

1.2.1 Cover

1.2.1.1 Cover

Item No.: 284-400
Finger guard; touchproof cover protects
unused conductor entries; yellow

1.2.2 DIN-rail

1.2.2.1 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; simi-
lar 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; si-
milar 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

1.2.2.1 Mounting accessories

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.: 216-262
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

Item No.: 216-208
Ferrule; Sleeve for 6 mm² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

Item No.: 216-108
Ferrule; Sleeve for 6 mm² / AWG 10; uninsulated; electro-tin plated; silver-colored

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

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.: 284-402
Jumper; insulated; gray

Item No.: 284-409
Jumper; insulated; gray

Item No.: 284-422
Jumper; insulated; yellow-green

1.2.6 Marking

1.2.6.1 Group marker carrier

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

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

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1.2.7 Protective warning marker

1.2.7.1 Cover

Item No.: 284-415
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow
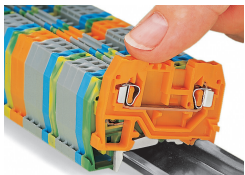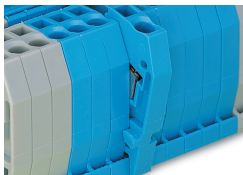
1.2.8 Tool

1.2.8.1 Operating tool

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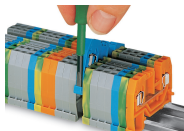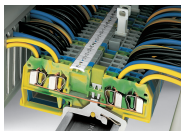
Installation Notes

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

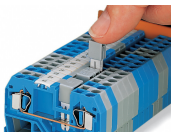**CAGE CLAMP® connection**
Inserting a conductor.
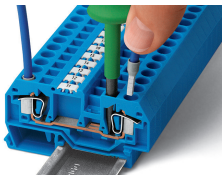
CAGE CLAMP® connection
Inserting a conductor.
With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.
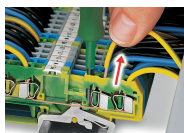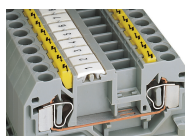
CAGE CLAMP® connection
Removing a solid conductor.
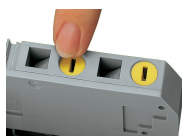
Commoning

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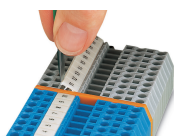
Cover

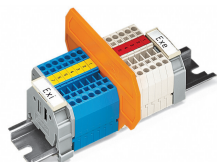Protective warning markers inserted into the operating slots

Finger guard seals an unused conductor entry.

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
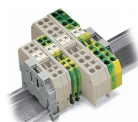
End and intermediate plate
In order to meet creepage and clearance requirements for Ex e applications, it is necessary to insert an end or intermediate plate between a through and a ground conductor terminal block.

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