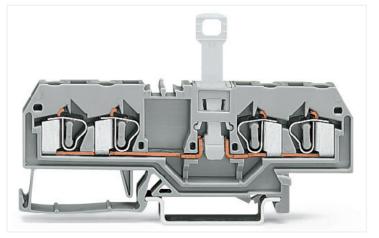
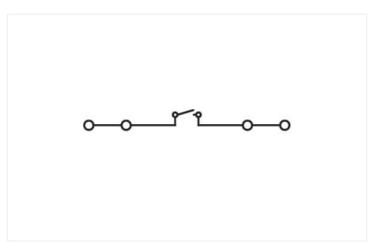
4-conductor disconnect terminal block; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm<sup>2</sup>; CAGE CLAMP®;  $4,00 \text{ mm}^2$ ; blue

MAGO

https://www.wago.com/281-660





Color: ■ blue

Similar to illustration

Similar to illustration

#### Electrical data

Ratings per IEC/EN	
Nominal voltage (III/3)	400 V
Rated impulse voltage (III/3)	6 kV
Rated current	10 A
Legend (ratings)	(III / 3) $\triangleq$ Overvoltage category III / Pollution degree 3

Power Loss	
Power loss, per pole (potential)	0.1 W
Rated current $I_N$ for specified power loss	10 A
Resistance value for specified, current- dependent power loss	0.001 Ω

# Connection data Connection points 4 Total number of potentials 2 Number of levels 1

Connection 1	
Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum

## W/AGO

#### Connection 1

Connectable conductor materials (note)

#### **Terminating Aluminum Conductors**

WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste <a href="https://www.wa-go.com/249-130">249-130</a> is used for termination.

"Alu-Plus" Contact Paste Advantages:

- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, aluminum conductors must first be cleaned with a blade and then immediately be inserted into the clamping units filled with "Alu-Plus" Contact Paste.

It is also possible to apply WAGO "Alu-Plus" **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:: 2.5 mm² = 16 A

 $2.5 \text{ mm}^2 = 16 \text{ A}$  $4 \text{ mm}^2 = 22 \text{ A}$ 

 Solid conductor
 0.08 ... 4 mm² / 28 ... 12 AWG

 Fine-stranded conductor
 0.08 ... 4 mm² / 28 ... 12 AWG

 Strip length
 9 ... 10 mm / 0.35 ... 0.39 inches

Wiring direction Front-entry wiring

Physical data	
Width	6 mm / 0.236 inches
Height	86 mm / 3.386 inches
Depth from upper-edge of DIN-rail	53.5 mm / 2.106 inches

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

Material data	
Note (material data)	<a href="https://www.wago.com/us/material-specifications">Information on material specifications can be found here</a>
Color	blue
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	VO
Fire load	0.344 MJ
Weight	13.3 g

https://www.wago.com/281-660



#### **Environmental requirements**

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

Commercial data	
Product Group	1 (Rail Mounted Terminal Blocks)
eCl@ss 10.0	27-14-11-26
eCl@ss 9.0	27-14-11-26
ETIM 8.0	EC000902
ETIM 7.0	EC000902
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918837798
Customs tariff number	85365080900

#### **Environmental Product Compliance**

RoHS Compliance Status Compliant, No Exemption

#### Approvals / Certificates

#### General approvals









Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	IEC 60947	NTR NL-7454/A1
CSA CSA Group	C22.2	1505034
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-107288
UL Underwriters Laboratories	UL 1059	E45172

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

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

#### Approvals for marine applications







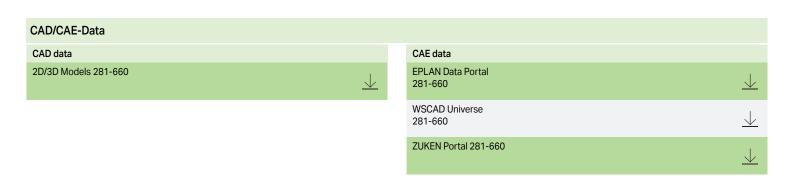
Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	20-HG1941090-PDA
BV Bureau Veritas S.A.	EN 60947	07436/F0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

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# Downloads Environmental Product Compliance Compliance Search Environmental Product Compliance 281-660

Documentation						
Additional Information			Bid Text			
Technical Section	pdf 2240.62 KB	<u>↓</u>	281-660	19.02.2019	xml 3.13 KB	$\underline{\downarrow}$
			281-660	02.03.2017	doc 24.50 KB	$\underline{\downarrow}$





### 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

## l. N. 242 402

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

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#### 1.2.1.1 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



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.: 216-241

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

#### Item No.: 216-201

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



#### Item No.: 216-242

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



Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

#### Item No.: 216-243

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

#### Item No.: 216-203

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red



#### Item No.: 216-204

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black

#### Item No.: 216-244

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.: 216-205

Ferrule; Sleeve for 2.08 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; yellow

#### Item No.: 216-206

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; blue



#### Item No.: 216-246

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.: 216-106

Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated; silver-colored

#### 1.2.3 Installation

#### 1.2.3.1 Cover



#### Item No.: 709-154

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

#### 1.2.3.2 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 TOPJOB® 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

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

#### 1.2.4 Insulation stop

#### 1.2.4.1 Insulation stop







Item No.: 281-470

Insulation stop; 0.08 - 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st"); 5 pieces/strip; white

Item No.: 281-471

Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; 5 pieces/ strip; light gray

Item No.: 281-472

Insulation stop; 0.75 - 1.5 mm<sup>2</sup>; 5 pieces/ strip; dark gray

#### 1.2.5 Jumper

#### 1.2.5.1 Jumper

Item No.: 281-490

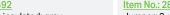




Jumper; 2-way; insulated; gray



Item No.: 281-492 Jumper; 2-way; insulated; gray







Jumper; 3-way; insulated; gray



Item No.: 281-485

Jumper; 5-way; insulated; gray

Jumper; 10-way; insulated; gray



Wire commoning chain; 2.5 mm²; insulated: black

Item No.: 709-111

Wire commoning chain; 2.5 mm<sup>2</sup>; insulated: black

Item No.: 709-112

Wire commoning chain; 2.5 mm<sup>2</sup>; insulated: black



Item No.: 210-103

Wire commoning chain; insulated; black

Item No.: 210-123

Wire commoning chain; insulated; blue

#### 1.2.6 Lock-out

#### 1.2.6.1 Locking system



Item No.: 709-170

Disconnect lock; for disconnect tab used on 280/281 and 769 Series disconnect terminal blocks; red

#### 1.2.7 Marking

#### 1.2.7.1 Group marker carrier



Item No.: 249-105

Group marker carrier; gray

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#### 1.2.7.2 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

ces 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

Item No.: 793-5501/000-005

5.2 mm; plain; snap-on type; red

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 -5.2 mm; plain; snap-on type; gray

WMB marking card; as card; for terminal

block width 5 - 17.5 mm; stretchable 5 -



#### 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

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.: 793-5501/000-017

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 -5.2 mm; plain; snap-on type; light green



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.: 793-501/000-006

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



#### Item No.: 793-501/000-007

Item No.: 793-5501/000-024

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



WMB marking card; as card; not stretcha-

#### Item No.: 793-501/000-012

Item No.: 793-501/000-002

ble; plain; snap-on type; yellow

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



WMB marking card; as card; not stretcha-

#### 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 pie-



ces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



ble; plain; snap-on type; violet

### Item No.: 2009-115/000-007

Item No.: 793-501/000-024

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



#### Item No.: 2009-115/000-017

WMB-Inline; for Smart Printer; 1500 pie-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.: 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

#### 1.2.8 Protective warning marker

#### 1.2.8.1 Cover



#### Item No.: 281-415

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

https://www.wago.com/281-660



#### 1.2.9 Test and measurement

#### 1.2.9.1 Testing accessories

Item No.: 210-136

Test plug; 2 mm  $\emptyset$ ; with 500 mm cable; red

11

Item No.: 209-107

Test socket; insulated; 2 mm  $\emptyset$ ; red

Item No.: 209-108

Test socket; insulated; 2.3 mm  $\emptyset$ ; yellow

#### 1.2.10 Tool

#### 1.2.10.1 Operating tool



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**

#### Security



Disconnect terminal block with colored tab to indicate the switching status (red = disconnected)



Pulling the disconnect tab via operating tool



Pulling the disconnect tab by hand.

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