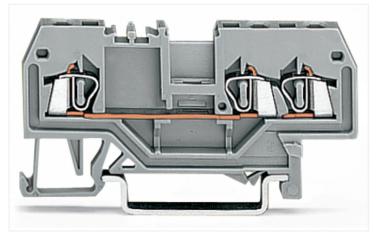
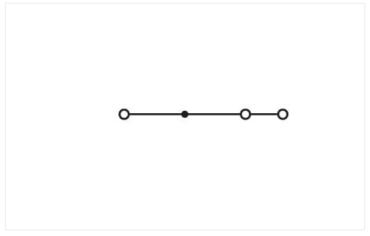
3-conductor through terminal block; 1.5 mm<sup>2</sup>; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 1,50 mm<sup>2</sup>; yellow



https://www.wago.com/279-686





Color: vellow

Similar to illustration

Similar to illustration

#### Through terminal block, 279 Series, operating tool

Connecting conductors is quick and easy with this through terminal block (item number 279-686). Whether for industrial or building applications, you can use our through terminal blocks to connect electrical conductors quickly and safely. We offer variants for both classic through-wiring and potential distribution. Our through rail-mount terminal block is rated for 800 V and is designed for use with a rated current of up to 18 A. Strip lengths must be between 8 mm and 9 mm when connecting conductors to this through terminal block. Featuring conductor terminals along with CAGE CLAMP®, this connector is highly versatile. Our reliable and maintenance-free CAGE CLAMP® connection makes it easy to connect all conductor types 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 0.08 mm² to 1.5 mm². It features one level and three clamping points that you can use to connect a single potential. The yellow 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.. The front-entry wiring makes it possible to connect copper conductors.

Electrical data			
Ratings per	IEC/	EN 60947-	7-1
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	800 V	-	-
Rated surge voltage	8 kV	-	-
Rated current	18 A	-	-

Approvals per		UL 1059	
Use group	В	С	D
Rated voltage	-	600 V	-
Rated current	-	10 A	-

Approvals per	C	SA 22.2 No 15	58
Use group	В	С	D
Rated voltage	-	600 V	-
Rated current	-	10 A	-

Power Loss	
Power loss, per pole (potential)	0.5929 W
Rated current $I_N$ for specified power loss	18 A
Resistance value for specified, current- dependent power loss	0.00183 Ω

Connection data	
Clamping units	3
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	0.08 1.5 mm² / 28 16 AWG
Fine-stranded conductor	0.08 1.5 mm² / 28 16 AWG
Strip length	8 9 mm / 0.31 0.35 inches
Wiring direction	Front-entry wiring

https://www.wago.com/279-686



#### Physical data

Width 4 mm / 0.157 inches Height 62.5 mm / 2.461 inches 27 mm / 1.063 inches Depth from upper-edge of DIN-rail

#### Mechanical data

Mounting type DIN-35 rail Marking level Center marking

#### Material data

Note (material data)

Information on material specifications can be found here

yellow

Polyamide (PA66)

Color Material group Insulation material (main housing)

V0 Flammability class per UL94 Fire load 0.1 MJ Weight 5.3 g

# **Environmental requirements**

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

# Commercial data

eCl@ss 10.0 27-14-11-20 27-14-11-20 eCl@ss 9.0 EC000897 ETIM 9.0 **ETIM 8.0** EC000897 PU (SPU) 100 pcs Packaging type Box Country of origin DE 4044918650564 Customs tariff number 85369010000

#### **Environmental Product Compliance**

RoHS Compliance Status Compliant, No Exemption

# Approvals / Certificates

# General approvals







CCM C		
Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7081
CSA DEKRA Certification B.V.	C22.2 No. 158	70133738
KEMA/KEUR DEKRA Certification B.V.	EN 60947	2160584.04
UL Underwriters Laboratories Inc.	UL 1059	E45172

# Declarations of conformity and manufacturer's declarations

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

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# Approvals for marine applications









VERITAS	and the same of th	
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
LR Lloyds Register	EN 60947	91/20112 (E9)

# Downloads Environmental Product Compliance Compliance Search Environmental Product Compliance 279-686

Documentation						
Additional Information			Bid Text			
Technical Section	pdf 2246.92 KB	<u>↓</u>	279-686	19.02.2019	xml 3.19 KB	<u>↓</u>
			279-686	28.02.2017	doc 23.50 KB	$\downarrow$

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 279-686	EPLAN Data Portal 279-686
	WSCAD Universe 279-686
	ZUKEN Portal 279-686



#### 1 Compatible Products

#### 1.1 Required Accessories

#### 1.1.1 End plate

#### 1.1.1.1 End plate

Item No.: 279-308

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End and intermediate plate; 2 mm thick;

Item No.: 279-339

End and intermediate plate; 2 mm thick; orange



Separator plate; 2 mm thick; oversized; grav

Item No.: 279-340

Separator plate; 2 mm thick; oversized; orange

#### 1.2 Optional Accessories

#### 1.2.1 DIN-rail

#### 1.2.1.1 Mounting accessories



# <u>Item No.: 210-196</u>

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 End plate

# 1.2.2.1 End plate



# Item No.: 284-334

Step-down cover plate; 1 mm thick; for 2-, 3- and 4-conductor terminal blocks; gray

# Item No.: 284-344

Step-down cover plate; 1 mm thick; for 2-, 3- and 4-conductor terminal blocks; orange

#### 1.2.3 Ferrule

# 1.2.3.1 Ferrule

#### Item No.: 216-301

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow

#### Item No.: 216-302

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise

#### Item No.: 216-201

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 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

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#### 1.2.3.1 Ferrule

Item No.: 216-202

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

Item No.: 216-102

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

Item No.: 216-203

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

Item No.: 216-103

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

#### 1.2.4 Installation

#### 1.2.4.1 Cover



Item No.: 709-153

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

#### 1.2.4.2 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

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

#### 1.2.5 Insulation stop

# 1.2.5.1 Insulation stop





Item No.: 279-470

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

Item No.: 279-471

Insulation stop; 0.25 mm<sup>2</sup>; 5 pieces/strip; dark gray

#### 1.2.6 Jumper

# 1.2.6.1 Jumper



Item No.: 279-490

Jumper; 10-way; insulated; gray

Item No.: 279-482

Jumper; 2-way; insulated; gray

Item No.: 279-492

Jumper; 2-way; insulated; gray

<u>Item No.: 279-483</u>

Jumper; 3-way; insulated; gray

Item No.: 279-402

Jumper; insulated; gray

<u>Item No.: 279-409</u> Jumper; insulated; gray Item No.: 279-422

Jumper; insulated; yellow-green

Item No.: 284-414

Step-down jumper; from 284/282 to 281/280/279 series; insulated; gray

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#### 1.2.7 Marking

#### 1.2.7.1 Double marker carrier



Item No.: 209-128 Adaptor; gray

#### 1.2.7.2 Group marker carrier





Item No.: 209-141

Group marker carrier; gray

Item No.: 209-142 Group marker carrier; gray Item No.: 249-105

Group marker carrier; gray

# 1.2.7.3 Marker

Item No.: 209-140

Group marker carrier; gray





Item No.: 793-4501/000-006 WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; blue



#### Item No.: 793-4501/000-017

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; light green



#### Item No.: 793-4501/000-012

Item No.: 793-4501/000-014

4 - 4.2 mm; plain; snap-on type; brown



#### Item No.: 793-4501/000-007

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; gray



# Item No.: 793-4501/000-005

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; red



#### Item No.: 793-4501/000-023 WMB marking card; as card; stretchable

Item No.: 793-4501/000-024

4 - 4.2 mm; plain; snap-on type; green



WMB marking card; as card; stretchable

Item No.: 2009-114/000-023

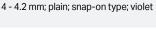


#### WMB marking card; as card; stretchable

Item No.: 793-4501/000-002

4 - 4.2 mm; plain; snap-on type; orange







#### Item No.: 793-4501

WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; white



#### WMB marking card; as card; stretchable

4 - 4.2 mm; plain; snap-on type; yellow



WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; blue

#### Item No.: 2009-114/000-007

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; gray







WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; orange



Item No.: 2009-114/000-005 WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; red



#### Item No.: 2009-114/000-024

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; violet



WMB-Inline; for Smart Printer; 2000 pie-

ces on roll; stretchable 4 - 4.2 mm; plain;

# Item No.: 2009-114

snap-on type; green

WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; white

Item No.: 2009-114/000-002 WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; yellow

#### 1.2.8 Protective warning marker

# 1.2.8.1 Cover



# Item No.: 279-415

Protective warning marker; 5-pole; with high-voltage symbol, black; yellow

https://www.wago.com/279-686



#### 1.2.9 Push-in type wire jumper

#### 1.2.9.1 Jumper

Item No.: 249-126

Push-in type wire jumper; 0.75 mm<sup>2</sup>; 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

#### 1.2.10 Test and measurement

#### 1.2.10.1 Testing accessories

P

Item No.: 280-404

Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm<sup>2</sup> - 4 mm<sup>2</sup> tbs; gray

Item No.: 209-170

Test plug adapter; 8.3 mm wide; for 4 mm  $\emptyset$  test plugs; suitable for 1.5 mm $^2$  - 10 mm $^2$  tbs; gray

#### 1.2.11 Tool

#### 1.2.11.1 Operating tool

Item No.: 210-719

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Item No.: 210-648

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short

Item No.: 210-647

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

# **Installation Notes**

## Installation



Snapping a terminal block onto the DIN-



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



Inserting insulation stops.



**CAGE CLAMP® connection** Removing a solid conductor.

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# W/AGO

#### Commoning



Commoning using an adjacent jumper. Push jumper 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 touchproof, 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.



Commoning terminal blocks of different sizes via step-down jumpers.

# Testing



Testing with a test plug. Picture shows a test plug adapter (209-170).

# Cover



Protective warning markers inserted into the operating slots

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# Marking



Labeling via WMB Multi Marking System.

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$