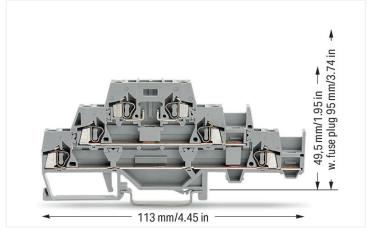
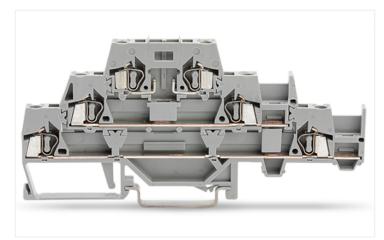
Triple-deck terminal block; with additional jumper position on lower level; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm<sup>2</sup>; CAGE CLAMP<sup>®</sup>; 2,50 mm<sup>2</sup>; gray/gray/gray

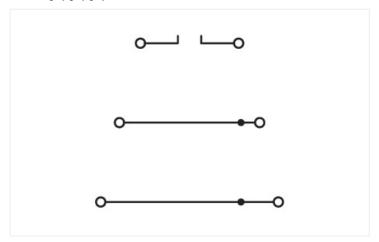


https://www.wago.com/280-889





Color: ■ gray/gray/gray



Similar to illustration

Triple-deck terminal block, 280 Series, CAGE CLAMP®

Our triple-deck terminal block (item number 280-889) simplifies electrical installations. The triple-deck terminal block also functions as carrier terminal block. Conductors can only be connected to this triple-deck terminal block if their strip length is between 8 mm and 9 mm. This product features conductor terminals and utilizes CAGE CLAMP®. Our renowned universal connection known as CAGE CLAMP® is industry-leading when it comes to connection technology and electrical interconnections. Depending on the type of conductor, this triple-deck terminal block is designed for conductor cross sections ranging from 0.08 mm² to 2.5 mm². It comes with three levels and six clamping points for connecting three potentials. The gray housing is made of polyamide (PA66) for insulation. These function terminal blocks are mounted using DIN-35 rails..

Electrical data			
Ratings per	IEC/	'EN 60947-	7-1
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	400 V	-	-
Rated surge voltage	6 kV	-	-
Rated current	20 A	-	-

Power Loss	
Power loss, per pole (potential)	0.532 W
Rated current ${\rm I}_{\rm N}$ for power loss specification	20 A
Resistance value for specified, current- dependent power loss	0.00133 Ω

https://www.wago.com/280-889



Connection data		
Clamping units	6	
Total number of potentials	3	
Number of levels	3	

Connection 1	
Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum
Connectable conductor materials (note)	<b>Terminating Aluminum Conductors</b> WAGO Spring-Clamp Terminal Blocks are

WAGO Spring-Clamp Terminal Blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste 249-130 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 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 mm<sup>2</sup> = 16 A 4 mm<sup>2</sup> = 22 A

Solid conductor 0.08 ... 2.5 mm² / 28 ... 12 AWG

Fine-stranded conductor 0.08 ... 2.5 mm² / 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	113 mm / 4.449 inches
Depth from upper-edge of DIN-rail	49.5 mm / 1.949 inches

Mechanical data	
Design	horizontal type
Mounting type	DIN-35 rail
Marking level	without marking level

# Data Sheet | Item Number: 280-889 https://www.wago.com/280-889



Material data	
Note (material data)	Information on makerial anguistications can be found been
	Information on material specifications can be found here
Color	gray/gray/gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.287 MJ
Weight	17.7 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)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918539081
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
CSA DEKRA Certification B.V.	C22.2	1536071
UR Underwriters Laboratories Inc.	UL 1059	E45172

https://www.wago.com/280-889



#### **Downloads**

### **Environmental Product Compliance**

Compliance Search

**Environmental Product** Compliance 280-889



#### **Documentation**

Bid Text			
280-889	19.02.2019	xml 3.61 KB	<u>↓</u>
280-889	02.03.2017	doc 25.00 KB	$\underline{\downarrow}$

#### CAD/CAE-Data

CAD data

2D/3D Models 280-889



**EPLAN Data Portal** 280-889

CAE data



WSCAD Universe 280-889



ZUKEN Portal 280-889



### 1 Compatible Products

### 1.1 Required Accessories

#### 1.1.1 End plate

### 1.1.1.1 End plate







Item No.: 280-305

End and intermediate plate; 2.5 mm thick; gray

Item No.: 280-306

End and intermediate plate; 2.5 mm thick; orange

Item No.: 280-339

Intermediate plate; 1.1 mm thick; orange

### 1.2 Optional Accessories

#### 1.2.1 DIN-rail

### 1.2.1.1 Mounting accessories







Copper carrier rail; 35 x 15 mm; 2.3 mm





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

thick; 2 m long; unslotted; according to EN 60715; copper-colored



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



Steel carrier rail; 35 x 15 mm; 2.3 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; slotted; according to EN 60715; "Hole width 18 mm; silver-colored

https://www.wago.com/280-889



#### 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



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



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 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; uninsulated; electro-tin plated; silver-colored

#### 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 mm<sup>2</sup> / 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

### Item No.: 216-204

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

#### Item No.: 216-104

Ferrule; Sleeve for 1.5 mm² / AWG 16; 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

https://www.wago.com/280-889



#### 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



mm2 "f-st"); 5 pieces/strip; white

Insulation stop; 0.08 - 0.2 mm<sup>2</sup> "s" (0.14

00000

Item No.: 280-471

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



Item No.: 280-472

Insulation stop; 0.75 - 1 mm<sup>2</sup>; 5 pieces/ strip; black

#### 1.2.5 Jumper

#### 1.2.5.1 Jumper

Item No.: 280-470

Item No.: 280-490

Jumper; 10-way; insulated; gray

11111111

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

Item No.: 280-402

Jumper; insulated; gray

Item No.: 280-409

Jumper; insulated; gray

Item No.: 780-452

Staggered jumper; from 1 to 2; insulated; gray

Item No.: 780-453

Staggered jumper; from 1 to 3; insulated; gray

Item No.: 780-454

Staggered jumper; from 1 to 4; insulated; gray

Item No.: 780-455

Staggered jumper; from 1 to 5; insulated; gray

Item No.: 780-456 Staggered jumper; from 1 to 6; insulated; gray Item No.: 780-457

Staggered jumper; from 1 to 7; insulated; gray

Item No.: 780-458

Staggered jumper; from 1 to 8; insulated; gray

Item No.: 281-421

Vertical jumper; insulated; gray

 $\mathcal{M}$ 

Item No.: 709-110

Wire commoning chain; 2.5 mm<sup>2</sup>; 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

Item No.: 210-103

Wire commoning chain; insulated; black

Continued on next page



Item No.: 210-123

Wire commoning chain; insulated; blue

https://www.wago.com/280-889



#### 1.2.6 Marking

#### 1.2.6.1 Marker



#### 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.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white

# 4

#### Item No.: 2009-115

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

#### 1.2.7 Plug

#### 1.2.7.1 Fuse plug



Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with blown fuse indication by neon lamp; 120 V; 6 mm wide; gray

#### Item No.: 281-512/281-417

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with blown fuse indication by neon lamp; 230 V; 6 mm wide; gray

#### Item No.: 281-512/281-501

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with LED indicator; 24 V AC/DC; 6 mm wide;

#### Item No.: 281-512

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with port for LED; 6 mm wide; gray

#### Item No.: 281-511

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; without blown fuse indication: 6 mm wide: gray

#### Item No.: 280-854

Fuse plug; with soldered miniature fuse; 1 A FF; 5 mm wide; gray

#### Item No.: 280-856

Fuse plug; with soldered miniature fuse; 2 A FF; 5 mm wide; gray

#### Item No.: 280-850

Fuse plug; with soldered miniature fuse; 250 mA FF; 5 mm wide; gray



Fuse plug; with soldered miniature fuse; 500 mA FF; 5 mm wide; gray

#### Item No.: 280-854/281-415

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); AC 15 - 30 V; 1 A FF; 5 mm wide; gray

### Item No.: 280-856/281-415

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); AC 15 - 30 V; 2 A FF; 5 mm wide; gray

#### Item No.: 280-850/281-415

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); AC 15 - 30 V; 250 mA FF; 5 mm wide; gray



### Item No.: 280-852/281-415

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); AC 15 - 30 V; 500 mA FF; 5 mm wide; gray

Item No.: 280-854/281-413 Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 15 - 30 V; 1 A FF; 5 mm wide; gray

### Item No.: 280-856/281-413

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 15 - 30 V; 2 A FF; 5 mm wide; gray

#### Item No.: 280-850/281-413

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 15 - 30 V; 250 mA FF; 5 mm wide; gray



### Item No.: 280-852/281-413

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 15 - 30 V; 500 mA FF; 5 mm wide; gray

### Item No.: 280-854/281-414

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 30 - 65 V; 1 A FF; 5 mm wide; gray

### Item No.: 280-856/281-414

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 30 - 65 V; 2 A FF; 5 mm wide; gray

### Item No.: 280-850/281-414

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 30 - 65 V; 250 mA FF; 5 mm wide; gray



#### Item No.: 280-852/281-414

Fuse plug; with soldered miniature fuse; with indicator lamp; LED (red); DC 30 - 65 V; 500 mA FF; 5 mm wide; gray

https://www.wago.com/280-889



### 1.2.8 Protective warning marker

#### 1.2.8.1 Cover



#### Item No.: 280-415

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

### 1.2.9 Push-in type wire jumper

## 1.2.9.1 Jumper





Push-in type wire jumper; 0.75 mm²; 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



#### Item No.: 249-142

L-type end module; modular; with rigid contact pin; End module; 1,50 mm²; gray

#### Item No.: 249-141

L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm²; gray

#### 1.2.11 Tool

### 1.2.11.1 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

#### Installation







Removing a terminal block from the assembly.

https://www.wago.com/280-889



#### Conductor termination



#### CAGE CLAMP® connection

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

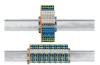
### Commoning



A vertical jumper commons the upper and lower decks, creating a 6-conductor feed-through terminal block in one housing. Two adjacent triple-deck terminal blocks may be commoned together on the same deck using a push-in adjacent jumper.



Combining vertical and adjacent jumpers.



Use 67% less rail space with triple-deck terminal blocks.

### Marking



Labeling via WMB Multi Marking System.

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

Current addresses can be found at::  $\underline{www.wago.com}$