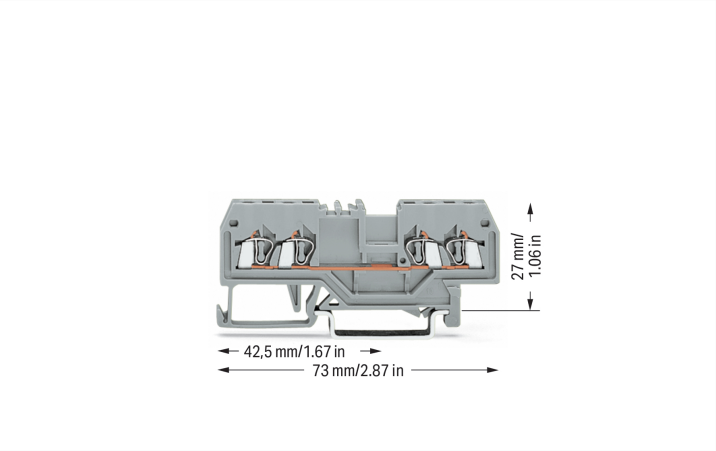
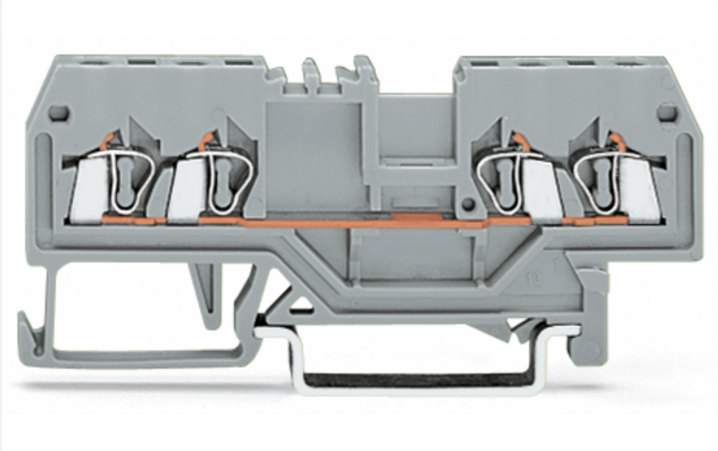
# Data Sheet | Item Number: 279-831

4-conductor through terminal block; 1.5 mm²; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 1,50 mm²; gray

https://www.wago.com/279-831



Color: gray



Similar to illustration

Through terminal block, 279 Series, operating tool

This through terminal block (item number 279-831) is designed to connect conductors quickly and easily. Ensure that the strip lengths are between 8 and 9 mm when connecting conductors to this through terminal block. 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 variant, you can use them for either typical through-wiring or potential distribution. Featuring conductor terminals along with CAGE CLAMP®, this product is highly versatile. Our trusted universal connection known as CAGE CLAMP® is the industry standard when it comes to connection technology and electrical interconnections. The dimensions are (4 x 73 x 31.5) mm (width x height x depth). Depending on the conductor type, this through terminal block is ideal for conductor cross sections ranging from 0.08 mm² to 1.5 mm².

An operating tool is used to operate this through rail-mount terminal block.


Continued on next page

## Electrical data

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

| Approvals per | UL 1059 | | |
|---|---|---|---|
| Use group | B | C | D |
| Rated voltage | - | 600 V | - |
| Rated current | - | 10 A | - |

| Approvals per | CSA 22.2 No 158 | | |
|---|---|---|---|
| Use group | B | C | D |
| Rated voltage | - | 600 V | - |
| Rated current | - | 10 A | - |

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

| General information | |
|---|---|
| Wiring direction | Front-entry wiring |

## Connection Data

| | |
|---|---|
| Clamping units | 4 |
| 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 |

## Physical data

| | |
|---|---|
| Width | 4 mm / 0.157 inches |
| Height | 73 mm / 2.874 inches |
| Depth from upper-edge of DIN-rail | 27 mm / 1.063 inches |
| Depth | 31.5 mm / 1.24 inches |

## Mechanical data

| | |
|---|---|
| Mounting type | DIN-35 rail |
| Marking level | Center marking |

## Material data

| | |
|---|---|
| Note (material data) | Information on material specifications can be found here |
| Color | gray |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.106 MJ |
| Weight | 6.4 g |

 Continued on next page

## Environmental requirements

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

## Commercial data

| | |
|---|---|
| Product Group | 1 (Rail Mounted Terminal Blocks) |
| PU (SPU) | 100 pcs |
| Packaging type | Box |
| Country of origin | PL |
| GTIN | 4044918520423 |
| 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 10.0 | EC000897 |
| ECCN | NO US CLASSIFICATION |

## Environmental Product Compliance

| | |
|---|---|
| RoHS Compliance Status | Compliant,No Exemption |

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| CSA<br>DEKRA Certification B.V. | C22.2 No. 158 | 70133738 |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947 | 2160584.04 |
| UL<br>Underwriters Laboratories Inc. | UL 1059 | UL-US-L45172-618717-50402891-1 |

### Declarations of conformity and manufacturer's declarations

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

### Approvals for marine applications

| Approval | Standard | Certificate Name |
|---|---|---|
| ABS<br>American Bureau of Shipping | - | 24-0152298-PDA |
| BV<br>Bureau Veritas S.A. | EN 60947 | 07436/G0 BV |
| DNV GL<br>Det Norske Veritas, Germanischer Lloyd | - | TAE00001V2 |
| LR<br>Lloyds Register | EN 60947 | LR23325966TA |
| PRS<br>Polski Rejestr Statków | - | TE/1094/880590/23 |

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## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 279-831

### Documentation

**Bid Text**

| | | | |
|---|---|---|---|
| 279-831 | 19.02.2019 | xml 3.19 KB | |
| 279-831 | 28.02.2017 | doc 23.50 KB | |

### CAD/CAE-Data

**CAD data**

2D/3D Models 279-831

**CAE data**

EPLAN Data Portal 279-831

WSCAD Universe 279-831

ZUKEN Portal 279-831

## 1 Compatible Products

### 1.1 Required Accessories

#### 1.1.1 End plate

##### 1.1.1.1 End plate

Item No.: 279-344
End and intermediate plate; 2 mm thick; gray

Item No.: 279-346
End and intermediate plate; 2 mm thick; orange

Item No.: 279-345
Separator plate; 2 mm thick; oversized; gray

Item No.: 279-347
Separator plate; 2 mm thick; oversized; orange

Item No.: 284-336
Step-down cover plate; 1 mm thick; for 4-conductor 279-831, 280-833 and 281-652 terminal blocks; gray

Item No.: 284-346
Step-down cover plate; 1 mm thick; for 4-conductor 279-831, 280-833 and 281-652 terminal blocks; orange

 Continued on next page

## 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 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 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.: 216-201
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 mm² / 18 AWG; insulated; electro-tin plated; gray

Item No.: 216-102
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; silver-colored



Item No.: 216-203
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-103
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated


Continued on next page

## 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 DIN-rail 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 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white

Item No.: 279-471
Insulation stop; 0.25 mm²; 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



Item No.: 279-483
Jumper; 3-way; insulated; gray

Item No.: 279-402
Jumper; insulated; gray

Item No.: 279-409
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

 Continued on next page

## 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.: 209-140
Group marker carrier; gray

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.: 793-4501/000-006
WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; blue

Item No.: 793-4501/000-014
WMB marking card; as card; stretchable 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.: 793-4501/000-023
WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; green

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

Item No.: 793-4501/000-005
WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; red

Item No.: 793-4501/000-024
WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; violet



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

Item No.: 793-4501/000-002
WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; yellow

Item No.: 2009-114/000-006
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

Item No.: 2009-114/000-023
WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; green

Item No.: 2009-114/000-012
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

Item No.: 2009-114
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


Continued on next page

## 1.2.9 Push-in type wire jumper

### 1.2.9.1 Jumper

Item No.: 249-126
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.: 280-404
Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm² - 4 mm² tbs; gray

Item No.: 209-170
Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm² - 10 mm² tbs; gray

## 1.2.11 Tool

### 1.2.11.1 Operating tool

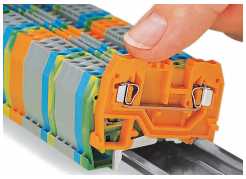
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Item No.: 210-648
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short

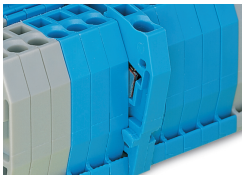
Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

## Installation Notes

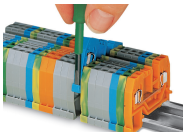
### Installation



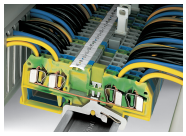
Snapping a terminal block onto the DIN-rail.



Quick assembly keys prevent reverse mounting.

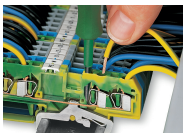


Removing a terminal block from the assembly.

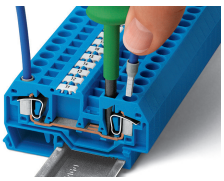


Steel DIN-rails are not suited for PEN (ground and N-conductor) applications per EN 60947-7-2 (VDE 0611, Part 3).

### Conductor termination

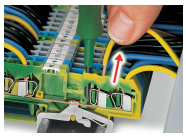


**CAGE CLAMP® connection**
Inserting a conductor.



**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.

Inserting insulation stops.



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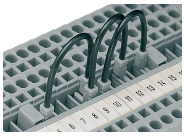
## Commoning

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

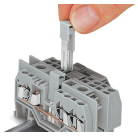


**Push-In Type Wire Jumpers**
When installing machines or control systems, it is often necessary to make an additional connection between two terminal blocks that are not next to each other on the rail. In such cases, WAGO's touch-proof, push-in type wire jumpers are the ideal solution.

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).

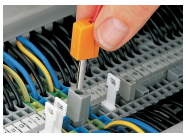
The 280/775/780 and 281/776/777/781 Series Terminal Blocks accept two wire jumpers, allowing the use of commoning chains. Furthermore, the 280/769/775/780/880 and 281/776/777/781 Series allow both wire jumper and adjacent jumper to be simultaneously plugged into a same terminal block.

Commoning using comb-style jumper bars:
Push comb-style jumper bars down until fully inserted.



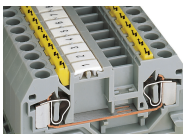
Commoning terminal blocks of different sizes via step-down jumpers.

## 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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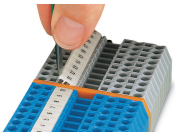
## Marking



Labeling via WMB Multi Marking System.