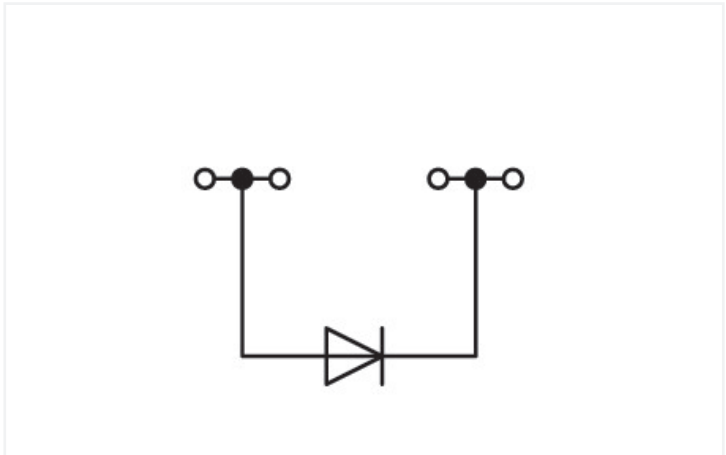
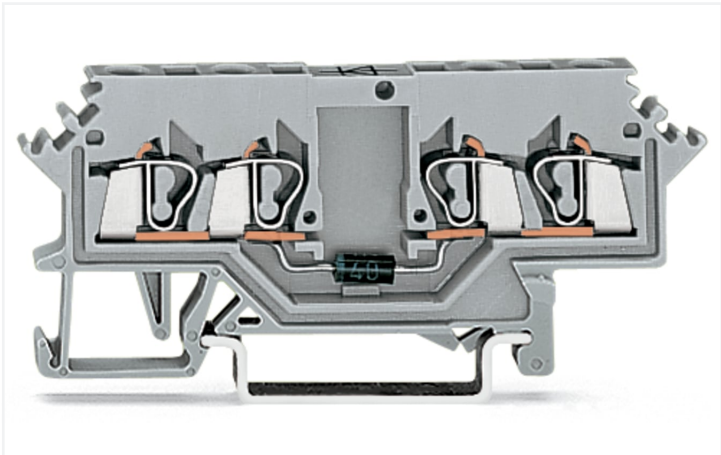




Color: ■ gray

Similar to illustration

Component terminal block with diode, 280 Series, gray

Component terminal block with diode (item number 280-623/281-410) provides hassle-free electrical installations. Strip lengths must be between 8 mm and 9 mm when connecting conductors to component terminal block with diode. This product features conductor terminals and utilizes CAGE CLAMP®. Our tried-and-tested universal connection known as CAGE CLAMP® is the industry standard when it comes to connection technology and electrical interconnections. Depending on the type of conductor, component terminal block with diode is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm². He has one level. The single potential can connect using the four clamping points 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 |     |    | General information |        |
| Overvoltage category |  | III              | III | II | Nominal voltage     | 250 V  |
| Pollution degree     |  | 3                | 2   | 2  | Reverse voltage     | 1000 V |
| Nominal voltage      |  | -                | -   | -  |                     |        |
| Rated surge voltage  |  | -                | -   | -  |                     |        |
| Rated current        |  | -                | -   | -  |                     |        |

| Connection data            |   |                                 |                    |
|----------------------------|---|---------------------------------|--------------------|
| Clamping units             | 4 | Connection 1                    |                    |
| Total number of potentials | 1 | Connection technology           | CAGE CLAMP®        |
| Number of levels           | 1 | Actuation type                  | Operating tool     |
|                            |   | Connectable conductor materials | Copper<br>Aluminum |



Connection 1

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connectable conductor materials (note) | <p><b>Terminating Aluminum Conductors</b></p> <p>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="#">249-130</a> is used for termination.</p> <p>“Alu-Plus” Contact Paste Advantages:</p> <ul style="list-style-type: none"><li>• Automatically destroys the oxide film during clamping.</li><li>• Prevents fresh oxidation at the clamping point.</li><li>• Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).</li><li>• Provides long-term protection against corrosion.</li></ul> <p>Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, <b>aluminum conductors must first be cleaned with a blade</b> and then immediately inserted into the clamping units filled with “Alu-Plus” contact paste.</p> <p>It is also possible to apply WAGO “Alu-Plus” <b>additionally</b> on the whole surface of the aluminum conductor before termination.</p> <p>Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors::</p> <p>2.5 mm² = 16 A</p> <p>4 mm² = 22 A</p> |
| Solid conductor                        | 0.08 ... 2.5 mm² / 28 ... 14 AWG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Fine-stranded conductor                | 0.08 ... 2.5 mm² / 28 ... 14 AWG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Strip length                           | 8 ... 9 mm / 0.31 ... 0.35 inches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Wiring direction                       | Front-entry wiring                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Physical data

|                                   |                      |
|-----------------------------------|----------------------|
| Width                             | 5 mm / 0.197 inches  |
| Height                            | 73 mm / 2.874 inches |
| Depth from upper-edge of DIN-rail | 28 mm / 1.102 inches |

Mechanical data

|               |                 |
|---------------|-----------------|
| Design        | horizontal type |
| Mounting type | DIN-35 rail     |
| Marking level | Side marking    |

Material data

|                                    |                                                                          |
|------------------------------------|--------------------------------------------------------------------------|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | gray                                                                     |
| Material group                     | I                                                                        |
| Insulation material (main housing) | Polyamide (PA66)                                                         |
| Flammability class per UL94        | V0                                                                       |
| Fire load                          | 0.163 MJ                                                                 |
| Weight                             | 8.7 g                                                                    |



| 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           | 27-14-11-27                      |
| eCl@ss 9.0            | 27-14-11-27                      |
| ETIM 9.0              | EC000903                         |
| ETIM 8.0              | EC000903                         |
| PU (SPU)              | 100 pcs                          |
| Packaging type        | Box                              |
| Country of origin     | CN                               |
| GTIN                  | 4050821275411                    |
| Customs tariff number | 85369010000                      |

| Environmental Product Compliance          |                                                          |
|-------------------------------------------|----------------------------------------------------------|
| CAS-No.                                   | 7439-92-1<br>79-94-7                                     |
| REACH Candidate List Substance            | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol<br>Lead |
| RoHS Compliance Status                    | Compliant,With Exemption                                 |
| RoHS Exemption                            | 7(a)<br>7(c)-I<br>7(c)-II                                |
| SCIP notification number (Austria)        | b3cf3e67-a4d3-4576-9bb9-9f8b7c8bdaa4                     |
| SCIP notification number (Belgium)        | bb7ed019-8868-4060-9eb4-d4ca56073362                     |
| SCIP notification number (Bulgaria)       | db985997-13d6-4161-a03f-375ca24b2c89                     |
| SCIP notification number (Czech Republic) | bcd48c04-6893-4c48-9e0d-d533870bc668                     |
| SCIP notification number (Denmark)        | b14d073e-08e2-4e32-ab4c-555310a17bdc                     |
| SCIP notification number (Finland)        | 0fa0d9e6-56c3-4ed7-b9f6-bb4f56d4d6c8                     |
| SCIP notification number (France)         | 9360cb1c-4909-4001-93d1-0385be578066                     |
| SCIP notification number (Germany)        | 026ede26-9f21-4338-9d41-843c645ee64d                     |
| SCIP notification number (Hungary)        | d95bcdbd-3993-4c77-9e30-696f20d1fa82                     |
| SCIP notification number (Italy)          | d275d92c-4c7f-42d5-97e6-72353e5640a9                     |
| SCIP notification number (Netherlands)    | 3e8ded6d-c4aa-4894-b7fd-b4cb6ce11a11                     |
| SCIP notification number (Poland)         | c8581d7c-ee51-46ec-9efc-b17b14e03297                     |
| SCIP notification number (Romania)        | 4f93a0d7-dcb4-4030-8ac8-ac7f08f1d5fe                     |
| SCIP notification number (Sweden)         | 2adb64c-bc93-45b8-bbef-6687522b5a7c                      |

| Approvals / Certificates                                                           |          |                                                            |
|------------------------------------------------------------------------------------|----------|------------------------------------------------------------|
| General approvals                                                                  |          | Declarations of conformity and manufacturer's declarations |
|  |          |                                                            |
| Approval                                                                           | Standard | Certificate Name                                           |
| CCA<br>DEKRA Certification B.V.                                                    | EN 60947 | 2157201.01                                                 |
|                                                                                    |          | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    |
|                                                                                    |          | UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    |



Approvals for marine applications



| Approval                                              | Standard | Certificate Name |
|-------------------------------------------------------|----------|------------------|
| ABS<br>American Bureau of Ship-<br>ping               | EN 60947 | 20-HG1941090-PDA |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd | -        | TAE00001V2       |

Downloads

Environmental Product Compliance

| Compliance Search                                      |
|--------------------------------------------------------|
| Environmental Product<br>Compliance<br>280-623/281-410 |



Documentation

| Additional Information |
|------------------------|
| Technical Section      |

pdf  
2246.92 KB



CAD/CAE-Data

| CAD data                        |
|---------------------------------|
| 2D/3D Models<br>280-623/281-410 |



| CAE data                             |
|--------------------------------------|
| EPLAN Data Portal<br>280-623/281-410 |
| WSCAD Universe<br>280-623/281-410    |
| ZUKEN Portal<br>280-623/281-410      |



1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 280-316  
End and intermediate plate; 2.5 mm thick;  
gray



Item No.: 280-317  
End and intermediate plate; 2.5 mm thick;  
orange



Item No.: 280-337  
Separator plate; 2 mm thick; oversized;  
gray



Item No.: 280-327  
Separator plate; 2 mm thick; oversized;  
orange



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 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.: 216-201**  
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; un-insulated; 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 / AWG 20; un-insulated; 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; un-insulated; electro-tin plated



**Item No.: 216-204**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-104**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; silver-colored

1.2.3 Installation

1.2.3.1 Cover



**Item No.: 709-153**  
Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent

1.2.3.2 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

1.2.3.3 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 DIN-rail 35 x 15 and 35 x 7.5; gray

1.2.4 Insulation stop

1.2.4.1 Insulation stop



**Item No.: 280-470**  
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.: 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.: 280-490**  
Jumper; 10-way; insulated; gray



**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.: 709-110**  
Wire commoning chain; 2.5 mm<sup>2</sup>; 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 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



**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 Protective warning marker

1.2.7.1 Cover



**Item No.: 280-415**  
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.8 Test and measurement

1.2.8.1 Testing accessories



**Item No.: 249-142**  
L-type end module; modular; with rigid contact pin; End module; 1,50 mm<sup>2</sup>; gray



**Item No.: 249-143**  
L-type spacer module; modular; e.g., bridging commoned terminal blocks; gray



**Item No.: 249-141**  
L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm<sup>2</sup>; gray

1.2.9 Tool

1.2.9.1 Operating tool



**Item No.: 210-658**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



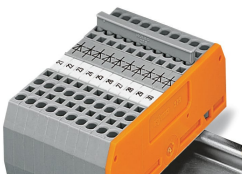
**Item No.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



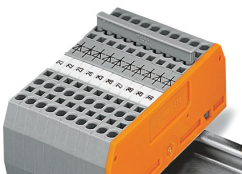
**Item No.: 210-657**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

Commoning



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



These diode terminal blocks have been specially developed for custom diode circuits, such as lamp test and collective fault signal circuits.



Polarized diode gates with a common cathode can be created using the following terminal blocks:  
280-623/281-410 or 280-623/281-411