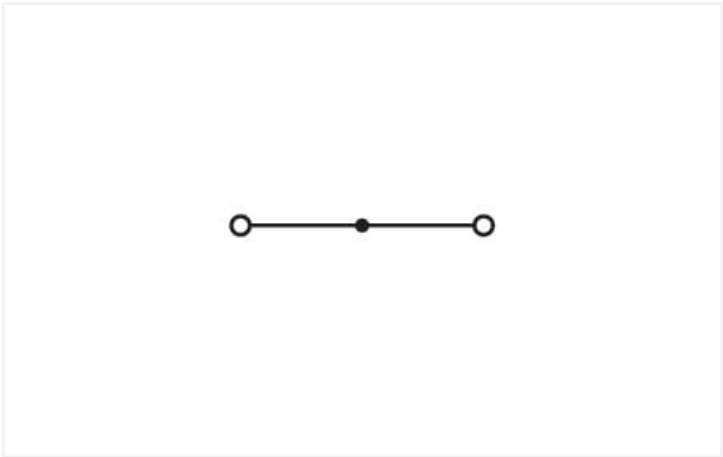
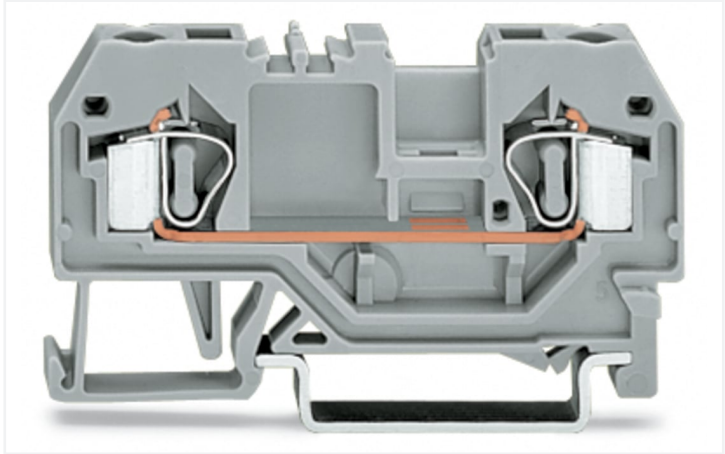


Color: ■ gray



Similar to illustration

Through terminal block, 281 Series, operating tool

This through terminal block (item number 281-901) is designed for quick and easy connections. 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 version, you can use them for either typical through-wiring or potential distribution. Rated current and voltage are important parameters when choosing a through rail-mount terminal block, as they indicate possible applications and uses. This product has a rated voltage of 800 V and a rated current of 32 A. Conductors can only be connected to this through terminal block if their strip length is between 9 mm and 10 mm. Featuring conductor terminals along with CAGE CLAMP®, this connector is highly versatile. Our highly-rated 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. Depending on the type of conductor, this through terminal block is suitable for conductor cross sections ranging from 0.08 mm² to 4 mm². It comes with one level and two clamping points that you can use to connect a single potential. The gray 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, aluminum 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  |  | 32 A             | -   | -  |
| Power Loss   |  |                  |     |    |
| Power loss, per pole (potential)                             |  | 1.024 W          |     |    |
| Rated current I <sub>N</sub> for specified power loss        |  | 32 A             |     |    |
| Resistance value for specified, current-dependent power loss |  | 0.001 Ω          |     |    |



| Connection data                        |  |  |
|--|--|--|
| Clamping units                         | 2  |  |
| Total number of potentials             | 1  |  |
| Number of levels                       | 1  |  |
| Connection 1                           |  |  |
| Connection technology                  | CAGE CLAMP®  |  |
| Actuation type                         | Operating tool   |  |
| Connectable conductor materials        | Copper<br>Aluminum   |  |
| Connectable conductor materials (note) | <p><b>Terminating Aluminum Conductors</b><br/>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::<br/>2.5 mm² = 16 A<br/>4 mm² = 22 A</p> |  |
| 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                            | 59 mm / 2.323 inches |  |
| Depth from upper-edge of DIN-rail | 29 mm / 1.142 inches |  |

| Mechanical data |                 |  |
|-----------------|-----------------|--|
| Design          | horizontal type |  |
| Mounting type   | DIN-35 rail     |  |
| Marking level   | Center 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                          | 0.149 MJ   |
| Weight                             | 7.8 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           | 27-14-11-20                      |
| eCl@ss 9.0            | 27-14-11-20                      |
| ETIM 9.0              | EC000897                         |
| ETIM 8.0              | EC000897                         |
| PU (SPU)              | 50 pcs                           |
| Packaging type        | Box                              |
| Country of origin     | PL                               |
| GTIN                  | 4044918485050                    |
| Customs tariff number | 85369010000                      |

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

| Approvals / Certificates                                |           |   |          |          |                  |   |   |   |   |   |   |
|---|-----------|---|----------|----------|------------------|---|---|---|---|---|---|
| General approvals                                       |           | Declarations of conformity and manufacturer's declarations  |          |          |                  |   |   |   |   |   |   |
|   |           |   |          |          |                  |   |   |   |   |   |   |
| Approval  | Standard  | Certificate Name  |          |          |                  |   |   |   |   |   |   |
| CCA<br>DEKRA Certification B.V.                         | IEC 60947 | NTR NL-7454/A1  |          |          |                  |   |   |   |   |   |   |
| CSA<br>CSA Group  | C22.2     | 1505034   |          |          |                  |   |   |   |   |   |   |
| KEMA/KEUR<br>DEKRA Certification B.V.                   | EN 60947  | 71-107288   |          |          |                  |   |   |   |   |   |   |
| UR<br>UL International Germany GmbH                     | UL 1059   | E45172  |          |          |                  |   |   |   |   |   |   |
|   |           | <table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Confor-<br/>mity<br/>WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Confor-<br/>mity<br/>WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr></table> | Approval | Standard | Certificate Name | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG | - | - | UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG | - | - |
| Approval  | Standard  | Certificate Name  |          |          |                  |   |   |   |   |   |   |
| 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  | -   | 20-HG1941090-PDA  |
| BV<br>Bureau Veritas S.A.  | EN 60947  | 07436/F0 BV   |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd                            | -   | TAE00001V2  |

Downloads

Environmental Product Compliance

| Compliance Search                           |
|---|
| Environmental Product<br>Compliance 281-901 |

Documentation

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

pdf  
2246.92 KB



| Bid Text |            |                 |  |
|----------|------------|-----------------|--|
| 281-901  | 19.02.2019 | xml<br>3.18 KB  |  |
| 281-901  | 28.02.2017 | doc<br>24.00 KB |  |























CAD/CAE-Data

| CAD data             |
|----------------------|
| 2D/3D Models 281-901 |



| CAE data                     |
|------------------------------|
| EPLAN Data Portal<br>281-901 |
| WSCAD Universe<br>281-901    |
| ZUKEN Portal 281-901         |



|  |  |  |  |
|--|--|--|--|
| 1 Compatible Products  |  |  |  |
| 1.1 Required Accessories   |  |  |  |
| 1.1.1 End plate  |  |  |  |
| 1.1.1.1 End plate  |  |  |  |
|   |   |    |   |
| <b>Item No.: 281-328</b><br>End and intermediate plate; 2.5 mm thick; gray   | <b>Item No.: 281-329</b><br>End and intermediate plate; 2.5 mm thick; orange   | <b>Item No.: 281-330</b><br>Separator plate; 2 mm thick; oversized; gray   | <b>Item No.: 281-331</b><br>Separator plate; 2 mm thick; oversized; orange   |
| 1.2 Optional Accessories   |  |  |  |
| 1.2.1 DIN-rail   |  |  |  |
| 1.2.1.1 Mounting accessories   |  |  |  |
|   |   |    |   |
| <b>Item No.: 210-196</b><br>Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored   | <b>Item No.: 210-198</b><br>Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored  | <b>Item No.: 210-508</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored                               | <b>Item No.: 210-197</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored   |
|   |   |    |   |
| <b>Item No.: 210-506</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored                                 | <b>Item No.: 210-114</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored   | <b>Item No.: 210-118</b><br>Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored                                       | <b>Item No.: 210-115</b><br>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                           |
|   |   |    |   |
| <b>Item No.: 210-112</b><br>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                           | <b>Item No.: 210-504</b><br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored                                  | <b>Item No.: 210-113</b><br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored  | <b>Item No.: 210-505</b><br>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  |  |  |  |
|   |   |  |  |
| <b>Item No.: 284-334</b><br>Step-down cover plate; 1 mm thick; for 2-, 3- and 4-conductor terminal blocks; gray  | <b>Item No.: 284-344</b><br>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  |  |  |  |
|   |   |   |   |
| <b>Item No.: 216-241</b><br>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 | <b>Item No.: 216-242</b><br>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 | <b>Item No.: 216-243</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red | <b>Item No.: 216-244</b><br>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 |



1.2.3.1 Ferrule



**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; un-insulated; electro-tin plated; silver-colored

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.: 281-470**  
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white

**Item No.: 281-471**  
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray

**Item No.: 281-472**  
Insulation stop; 0.75 - 1.5 mm²; 5 pieces/strip; dark gray



1.2.6 Jumper

1.2.6.1 Jumper



Item No.: 281-490  
Jumper; 10-way; insulated; gray



Item No.: 281-482  
Jumper; 2-way; insulated; gray



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



Item No.: 281-483  
Jumper; 3-way; insulated; gray



Item No.: 281-485  
Jumper; 5-way; insulated; gray



Item No.: 281-402  
Jumper; insulated; gray



Item No.: 281-409  
Jumper; insulated; gray



Item No.: 281-422  
Jumper; insulated; yellow-green



Item No.: 781-452  
Staggered jumper; from 1 to 2; insulated; gray



Item No.: 781-453  
Staggered jumper; from 1 to 3; insulated; gray



Item No.: 781-454  
Staggered jumper; from 1 to 4; insulated; gray



Item No.: 781-455  
Staggered jumper; from 1 to 5; insulated; gray



Item No.: 781-456  
Staggered jumper; from 1 to 6; insulated; gray



Item No.: 283-414  
Step-down jumper; from 283 to 281 series; insulated; gray



Item No.: 284-414  
Step-down jumper; from 284/282 to 281/280/279 series; 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

1.2.7 Marking

1.2.7.1 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

1.2.7.2 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.: 793-5501/000-007  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray



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



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



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.: 793-5501/000-005  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red



Item No.: 793-5501/000-024  
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  
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.: 793-5501/000-002  
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.: 793-501/000-006  
WMB marking card; as card; not stretchable; plain; snap-on type; blue



Item No.: 793-501/000-007  
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



Item No.: 793-501/000-017  
WMB marking card; as card; not stretchable; plain; snap-on type; light green



Item No.: 793-501/000-012  
WMB marking card; as card; not stretchable; plain; snap-on type; orange



Item No.: 793-501/000-005  
WMB marking card; as card; not stretchable; plain; snap-on type; red



Item No.: 793-501/000-024  
WMB marking card; as card; not stretchable; plain; snap-on type; violet

1.2.7.2 Marker



**Item No.: 793-501**  
WMB marking card; as card; not stretchable; plain; snap-on type; white



**Item No.: 793-501/000-002**  
WMB marking card; as card; not stretchable; plain; snap-on type; yellow



**Item No.: 2009-115/000-006**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



**Item No.: 2009-115/000-007**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



**Item No.: 2009-115/000-023**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



**Item No.: 2009-115/000-017**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green



**Item No.: 2009-115/000-012**  
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



**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.: 2009-115/000-002**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

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

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 mm<sup>2</sup>; insulated; 180 mm long; black



**Item No.: 249-127**  
Push-in type wire jumper; 0.75 mm<sup>2</sup>; 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.: 249-148**  
B-type spacer module; modular; e.g., for bridging commoned terminal blocks; gray



**Item No.: 249-147**  
B-type test plug module; modular; 2,50 mm<sup>2</sup>; gray



**Item No.: 249-145**  
L-type end module; modular; with rigid contact pin; End module; 2,50 mm<sup>2</sup>; gray



**Item No.: 249-146**  
L-type spacer module; modular; e.g., bridging commoned terminal blocks; gray



**Item No.: 249-144**  
L-type test plug module; modular; with spring-loaded contact pin; Center module; 2,50 mm<sup>2</sup>; gray



**Item No.: 281-419**  
Spacer module; modular; bridging commoned terminal blocks; gray



**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 Ø test plugs; suitable for 1.5 mm<sup>2</sup> - 10 mm<sup>2</sup> tbs; gray



**Item No.: 281-418**  
Test plug module; modular; suitable for all WAGO 281, 776, 777 and 781 series rail-mounted terminal blocks with jumper slots in the current bar; gray



**Item No.: 281-407**  
Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm<sup>2</sup> - 2.5 mm<sup>2</sup>; 2,50 mm<sup>2</sup>; gray



1.2.11 Tool

1.2.11.1 Operating tool



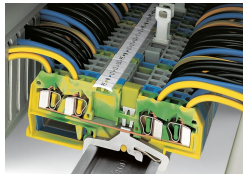
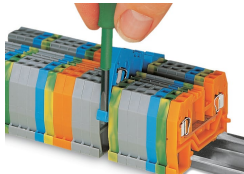
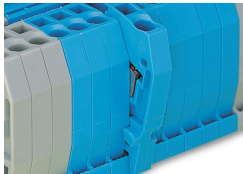
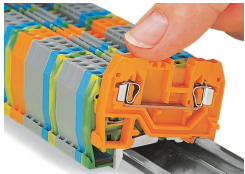
**Item No.: 210-658**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

**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

Installation



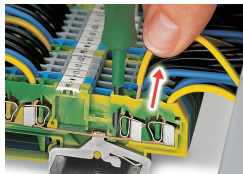
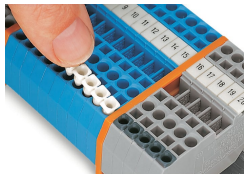
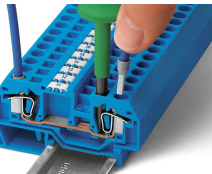
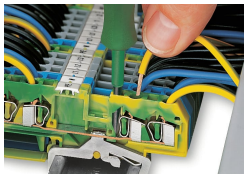
Snapping a terminal block onto the DIN-rail.

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



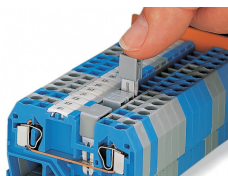
**CAGE CLAMP® connection**  
Inserting a conductor.

**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.

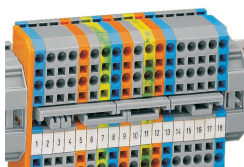
Inserting insulation stops.

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

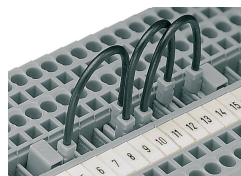
## Commoning



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



Staggered jumpers are suitable for sophisticated circuit requirements. Push jumpers down until fully inserted!



### Push-In Type Wire Jumpers

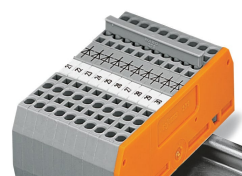
When installing machines or control systems, it is often necessary to make an additional connection between two terminal blocks that are not next to each other on the rail. In such cases, WAGO's touch-proof, push-in type wire jumpers are the ideal solution.

These jumpers are compatible with the following rail-mount terminal blocks:

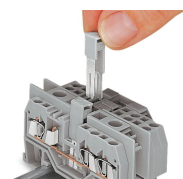
- 279 Series (1.5 mm<sup>2</sup>/16 AWG),
- 280/775/780 Series (2.5 mm<sup>2</sup>/14 AWG)
- 281/769/776/777/781 and 880 Series (4 mm<sup>2</sup>/12 AWG)

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.

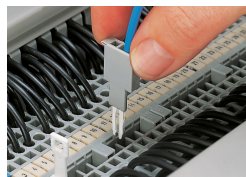


Commoning using comb-style jumper bars:  
Push comb-style jumper bars down until fully inserted.



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

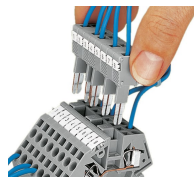
## Testing



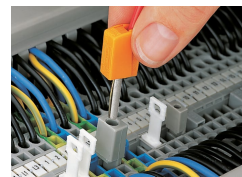
Testing with a test plug.  
Picture shows a test plug fitted with CAGE CLAMP®.



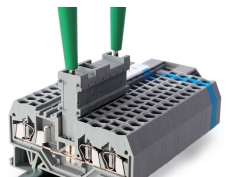
L-type test plug modules fitted with CA-GE CLAMP®



B-type test plug modules fitted with CA-GE CLAMP®

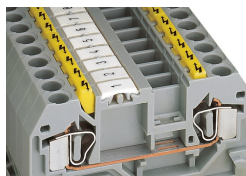


Testing with a test plug.  
Picture shows a test plug adapter  
(209-170).



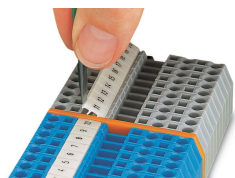
Test plugs modules are directly plugged into the jumper contact slot of the current bar.

## Cover

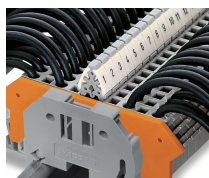


Protective warning markers inserted into the operating slots

## Marking



Labeling via WMB Multi Marking System.



Terminal block marking with double marker carriers (209-128) Terminal blocks with side marking