

**Data sheet | Item number: 231-646/018-000**

1-conductor male connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm;  
16-pole; DIN-35 rail/panel mounting; Snap-in mounting feet; 2,50 mm<sup>2</sup>;  
orange

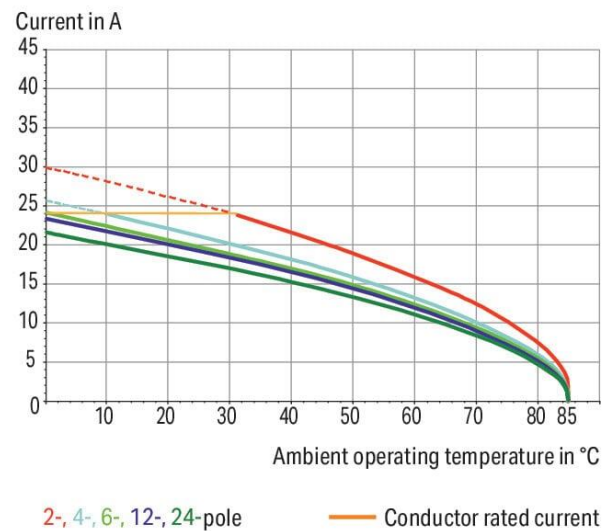
[www.wago.com/231-646/018-000](http://www.wago.com/231-646/018-000)



Color: 

**Derating Curve**

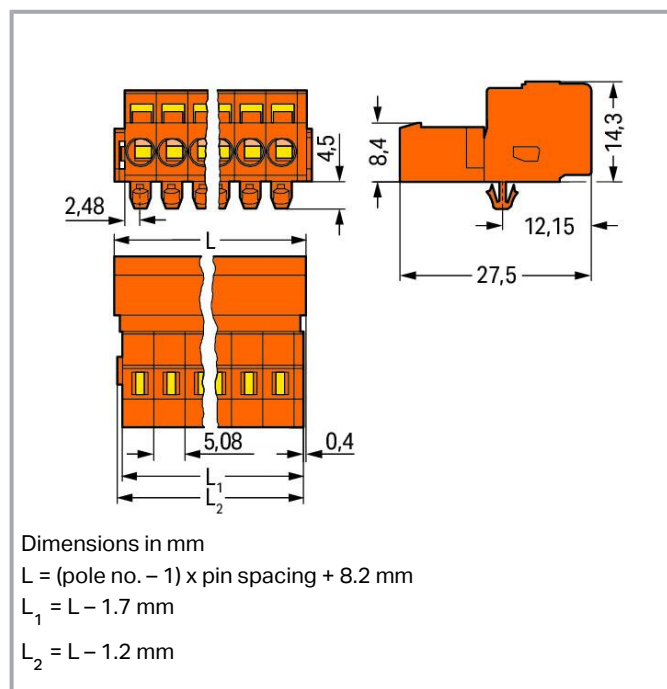
1-conductor female connector (231-102/026-000) with  
1-conductor male header (231-602)  
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8



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

WAGO GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

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## Item description

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers

## Data

### Notes

#### Safety information

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected /disconnected when live or under load. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

#### Variants:

Other pole numbers  
Gold-plated or partially gold-plated contact surfaces  
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

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



## Electrical data

### Ratings per IEC/EN

|                               |                                                                      |
|-------------------------------|----------------------------------------------------------------------|
| Ratings per                   | IEC/EN 60664-1                                                       |
| Nominal voltage (III/3)       | 320 V                                                                |
| Rated impulse voltage (III/3) | 4 kV                                                                 |
| Rated voltage (III/2)         | 320 V                                                                |
| Rated impulse voltage (III/2) | 4 kV                                                                 |
| Nominal voltage (II/2)        | 630 V                                                                |
| Rated surge voltage (II/2)    | 4 kV                                                                 |
| Rated current                 | 12 A                                                                 |
| Legend (ratings)              | (III / 2) $\triangleq$ Overvoltage category III / Pollution degree 2 |

### Ratings per UL

|                                |         |
|--------------------------------|---------|
| Approvals per                  | UL 1059 |
| Rated voltage UL (Use Group B) | 300 V   |
| Rated current UL (Use Group B) | 15 A    |
| Rated voltage UL (Use Group D) | 300 V   |
| Rated current UL (Use Group D) | 10 A    |

### Ratings per UL 1977

|                         |       |
|-------------------------|-------|
| Rated voltage (UL 1977) | 600 V |
| Rated current UL 1977   | 15 A  |

### Ratings per CSA

|                                 |       |
|---------------------------------|-------|
| Approvals per                   | CSA   |
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 15 A  |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 10 A  |

### Connection data

|                            |    |
|----------------------------|----|
| Connection points          | 16 |
| Total number of potentials | 16 |
| Number of connection types | 1  |
| Number of levels           | 1  |

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



## Connection 1

|                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| Connection technology                             | CAGE CLAMP®                                |
| Actuation type                                    | Operating tool                             |
| Actuation direction 1                             | Operation parallel to conductor entry      |
| Actuation direction 2                             | Operation perpendicular to conductor entry |
| Solid conductor                                   | 0.08 ... 2.5 mm² / 28 ... 12 AWG           |
| Fine-stranded conductor                           | 0.08 ... 2.5 mm² / 28 ... 12 AWG           |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1.5 mm²                           |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm²                           |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inches          |
| Pole number                                       | 16                                         |
| Conductor entry direction to mating direction     | 0°                                         |

## Physical data

|                         |                         |
|-------------------------|-------------------------|
| Pin spacing             | 5.08 mm / 0.2 inches    |
| Width                   | 84.48 mm / 3.326 inches |
| Height                  | 18.8 mm / 0.74 inches   |
| Height from the surface | 14.3 mm / 0.563 inches  |
| Depth                   | 27.5 mm / 1.083 inches  |

## Mechanical Data

|                          |                                         |
|--------------------------|-----------------------------------------|
| Variable coding          | Yes                                     |
| Housing sheet thickness  | 0.6 ... 1.2 mm / 0.024 ... 0.047 inches |
| Mounting type            | Snap-in foot                            |
| Mounting type            | Panel mounting                          |
| Anti-rotation protection | Yes                                     |

## Plug-in connection

|                                      |                     |
|--------------------------------------|---------------------|
| Contact type (pluggable connector)   | Male connector/plug |
| Connector (connection type)          | for conductor       |
| Mismating protection                 | No                  |
| Plugging without loss of pin spacing | No                  |
| Locking of plug-in connection        | none                |

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



## Material data

Note (material data)

Information on material specifications can be found here

|                             |                                        |
|-----------------------------|----------------------------------------|
| Color                       | orange                                 |
| Material group              | I                                      |
| Insulation material         | Polyamide (PA66)                       |
| Flammability class per UL94 | V0                                     |
| Clamping spring material    | Chrome-nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | Tin                                    |
| Fire load                   | 0.435 MJ                               |
| Weight                      | 24.6 g                                 |

## Environmental requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
| Processing temperature  | -35 ... +60 °C  |

## Commercial data

|                       |                        |
|-----------------------|------------------------|
| Product Group         | 3 (Multi Conn. System) |
| eCl@ss 10.0           | 27-44-03-09            |
| eCl@ss 9.0            | 27-44-03-09            |
| ETIM 8.0              | EC002638               |
| ETIM 7.0              | EC002638               |
| ECCN                  | NO DATA                |
| PU (SPU)              | 25 pcs                 |
| Packaging type        | box                    |
| Country of origin     | DE                     |
| GTIN                  | 4044918260978          |
| Customs tariff number | 85366930000            |

## Environmental Product Compliance

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

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## Approvals / Certificates

### General approvals

| Logo                                                                               | Approval                                     | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------|------------------|
|                                                                                    | <b>CB</b><br>DEKRA Certification B.V.        | IEC 61984                | NL-39756/A1      |
|    | <b>CCC</b><br>CQC                            | GB/T 13140.1             | CQC03003003013   |
|    | <b>CSA</b><br>DEKRA Certification B.V.       | C22.2                    | 1466354          |
|    | <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 61984                 | 71-121453        |
|   | <b>UL</b><br>UL International Germany GmbH   | UL 1977                  | E45171           |
|  | <b>UR</b><br>Underwriters Laboratories Inc.  | UL 1059                  | E45172           |

### Declarations of conformity and manufacturer's declarations

| Logo                                                                               | Approval                             | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|--------------------------------------|--------------------------|------------------|
|  | <b>Railway</b><br>WAGO GmbH & Co. KG | -                        | Railway Ready    |

### Approvals for marine applications

| Logo                                                                               | Approval                                  | Additional Approval Text | Certificate name         |
|------------------------------------------------------------------------------------|-------------------------------------------|--------------------------|--------------------------|
|  | <b>ABS</b><br>American Bureau of Shipping | -                        | 19-<br>HG1869876-<br>PDA |
|                                                                                    | <b>BV</b>                                 | IEC 60998                | 11915/D0                 |

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Bureau Veritas S.A.

BV



DNV  
DNV GL SE

TAE000016Z

## Counterpart



Item no. 231-316/026-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 16-pole; 2,50 mm²; orange

[www.wago.com/231-316/026-000](http://www.wago.com/231-316/026-000)

## Optional accessories

### Marking accessories

#### Marking strip



Item no.: 210-331/508-103

Marking strips; as a DIN A4 sheet; MARKED; 1-12 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-331/508-103](http://www.wago.com/210-331/508-103)



Item no.: 210-331/508-104

Marking strips; as a DIN A4 sheet; MARKED; 13-24 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-331/508-104](http://www.wago.com/210-331/508-104)



Item no.: 210-332/508-202

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-332/508-202](http://www.wago.com/210-332/508-202)



Item no.: 210-332/508-204

Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-332/508-204](http://www.wago.com/210-332/508-204)



Item no.: 210-332/508-206

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-332/508-206](http://www.wago.com/210-332/508-206)



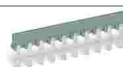
Item no.: 210-332/508-205

Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-332/508-205](http://www.wago.com/210-332/508-205)

### Jumpers

#### Jumper



Item no.: 231-905

Jumper; for conductor entry; 5-way; insulated; gray

[www.wago.com/231-905](http://www.wago.com/231-905)

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Hansastraße 27

32423 Minden

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|                                                                                   |                                                                                                                                                                                        |                                                                |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|   | <b>Item no.: 231-903</b><br>Jumper; for conductor entry; 3-way; insulated; gray                                                                                                        | <a href="http://www.wago.com/231-903">www.wago.com/231-903</a> |
|   | <b>Item no.: 231-907</b><br>Jumper; for conductor entry; 7-way; insulated; gray                                                                                                        | <a href="http://www.wago.com/231-907">www.wago.com/231-907</a> |
|   | <b>Item no.: 231-910</b><br>Jumper; for conductor entry; 10-way; insulated; gray                                                                                                       | <a href="http://www.wago.com/231-910">www.wago.com/231-910</a> |
|   | <b>Item no.: 231-902</b><br>Jumper; for conductor entry; 2-way; insulated; gray                                                                                                        | <a href="http://www.wago.com/231-902">www.wago.com/231-902</a> |
| <b>Cover</b>                                                                      |                                                                                                                                                                                        |                                                                |
| Cover                                                                             |                                                                                                                                                                                        |                                                                |
|   | <b>Item no.: 231-669</b><br>Lockout caps; for covering unused clamping units; orange                                                                                                   | <a href="http://www.wago.com/231-669">www.wago.com/231-669</a> |
| <b>Ferrule</b>                                                                    |                                                                                                                                                                                        |                                                                |
| Ferrule                                                                           |                                                                                                                                                                                        |                                                                |
|    | <b>Item no.: 216-101</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored                                                          | <a href="http://www.wago.com/216-101">www.wago.com/216-101</a> |
|    | <b>Item no.: 216-104</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored                                                          | <a href="http://www.wago.com/216-104">www.wago.com/216-104</a> |
|   | <b>Item no.: 216-106</b><br>Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; uninsulated; electro-tin plated; silver-colored                                                          | <a href="http://www.wago.com/216-106">www.wago.com/216-106</a> |
|  | <b>Item no.: 216-102</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored                                                         | <a href="http://www.wago.com/216-102">www.wago.com/216-102</a> |
|  | <b>Item no.: 216-103</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated                                                                            | <a href="http://www.wago.com/216-103">www.wago.com/216-103</a> |
|  | <b>Item no.: 216-123</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored                                                            | <a href="http://www.wago.com/216-123">www.wago.com/216-123</a> |
|  | <b>Item no.: 216-122</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored                                                         | <a href="http://www.wago.com/216-122">www.wago.com/216-122</a> |
|  | <b>Item no.: 216-124</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated                                                                          | <a href="http://www.wago.com/216-124">www.wago.com/216-124</a> |
|  | <b>Item no.: 216-142</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | <a href="http://www.wago.com/216-142">www.wago.com/216-142</a> |
|  | <b>Item no.: 216-132</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated                                                                         | <a href="http://www.wago.com/216-132">www.wago.com/216-132</a> |
|  | <b>Item no.: 216-121</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored                                                          | <a href="http://www.wago.com/216-121">www.wago.com/216-121</a> |

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|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|    | <b>Item no.: 216-143</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92                   | <a href="http://www.wago.com/216-143">www.wago.com/216-143</a> |
|    | <b>Item no.: 216-131</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored                                                                        | <a href="http://www.wago.com/216-131">www.wago.com/216-131</a> |
|    | <b>Item no.: 216-141</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92                 | <a href="http://www.wago.com/216-141">www.wago.com/216-141</a> |
|    | <b>Item no.: 216-152</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated                                                                                        | <a href="http://www.wago.com/216-152">www.wago.com/216-152</a> |
|    | <b>Item no.: 216-203</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red                                                                                        | <a href="http://www.wago.com/216-203">www.wago.com/216-203</a> |
|    | <b>Item no.: 216-202</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray                                                                                    | <a href="http://www.wago.com/216-202">www.wago.com/216-202</a> |
|    | <b>Item no.: 216-151</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated                                                                                        | <a href="http://www.wago.com/216-151">www.wago.com/216-151</a> |
|    | <b>Item no.: 216-204</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black                                                                                    | <a href="http://www.wago.com/216-204">www.wago.com/216-204</a> |
|    | <b>Item no.: 216-144</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored | <a href="http://www.wago.com/216-144">www.wago.com/216-144</a> |
|  | <b>Item no.: 216-201</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white                                                                                    | <a href="http://www.wago.com/216-201">www.wago.com/216-201</a> |
|  | <b>Item no.: 216-223</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red                                                                                        | <a href="http://www.wago.com/216-223">www.wago.com/216-223</a> |
|  | <b>Item no.: 216-241</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white            | <a href="http://www.wago.com/216-241">www.wago.com/216-241</a> |
|  | <b>Item no.: 216-242</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray            | <a href="http://www.wago.com/216-242">www.wago.com/216-242</a> |
|  | <b>Item no.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray                                                                                    | <a href="http://www.wago.com/216-222">www.wago.com/216-222</a> |
|  | <b>Item no.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white                                                                                    | <a href="http://www.wago.com/216-221">www.wago.com/216-221</a> |
|  | <b>Item no.: 216-224</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black                                                                                    | <a href="http://www.wago.com/216-224">www.wago.com/216-224</a> |
|  | <b>Item no.: 216-243</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red                | <a href="http://www.wago.com/216-243">www.wago.com/216-243</a> |
|                                                                                   | <b>Item no.: 216-244</b>                                                                                                                                                                              |                                                                |

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Hansastr. 27  
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|                                                                                 |                                                                                                                                                                                            |                                                                |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|  | Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black                             | <a href="http://www.wago.com/216-244">www.wago.com/216-244</a> |
|  | <b>Item no.: 216-263</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red     | <a href="http://www.wago.com/216-263">www.wago.com/216-263</a> |
|  | <b>Item no.: 216-264</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black | <a href="http://www.wago.com/216-264">www.wago.com/216-264</a> |
|  | <b>Item no.: 216-262</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | <a href="http://www.wago.com/216-262">www.wago.com/216-262</a> |
|  | <b>Item no.: 216-301</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow                                                                       | <a href="http://www.wago.com/216-301">www.wago.com/216-301</a> |
|  | <b>Item no.: 216-321</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow                                                                       | <a href="http://www.wago.com/216-321">www.wago.com/216-321</a> |
|  | <b>Item no.: 216-322</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise                                                              | <a href="http://www.wago.com/216-322">www.wago.com/216-322</a> |
|  | <b>Item no.: 216-302</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise                                                              | <a href="http://www.wago.com/216-302">www.wago.com/216-302</a> |

## Mounting

### Mounting accessories



**Item no.: 209-137**  
Mounting adapter; can be used as end stop; 6.5 mm wide; gray

[www.wago.com/209-137](http://www.wago.com/209-137)

## Mounting adapter

### Mounting accessories



**Item no.: 209-148**  
Multi mounting adapter; for female and male connectors; 25 mm wide; 3 parts; gray

[www.wago.com/209-148](http://www.wago.com/209-148)

## Tool

### Operating tool



**Item no.: 209-130**  
Operating tool; made of insulating material; 1-way; for 264 Series (1-/2-way), 280, 281 Series (up to 3-way); natural

[www.wago.com/209-130](http://www.wago.com/209-130)



**Item no.: 209-132**  
Operating tool; for connecting comb-style jumper bar; made of insulating material; 2-way; natural

[www.wago.com/209-132](http://www.wago.com/209-132)



**Item no.: 231-159**  
Operating tool; natural

[www.wago.com/231-159](http://www.wago.com/231-159)



**Item no.: 210-250**  
Operating tool; for MCS MINI and MIDI with CAGE CLAMP® connection; red

[www.wago.com/210-250](http://www.wago.com/210-250)

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



**Item no.: 231-231**  
Combination operating tool; red

[www.wago.com/231-231](http://www.wago.com/231-231)



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

[www.wago.com/210-657](http://www.wago.com/210-657)



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

[www.wago.com/210-720](http://www.wago.com/210-720)



**Item no.: 231-131**  
Operating tool; made of insulating material; 1-way; loose; white

[www.wago.com/231-131](http://www.wago.com/231-131)



**Item no.: 231-291**  
Operating tool; made of insulating material; 1-way; loose; red

[www.wago.com/231-291](http://www.wago.com/231-291)



**Item no.: 280-432**  
Operating tool; made of insulating material; 2-way; white

[www.wago.com/280-432](http://www.wago.com/280-432)



**Item no.: 280-434**  
Operating tool; made of insulating material; 4-way

[www.wago.com/280-434](http://www.wago.com/280-434)



**Item no.: 280-437**  
Operating tool; made of insulating material; 7-way

[www.wago.com/280-437](http://www.wago.com/280-437)



**Item no.: 280-440**  
Operating tool; made of insulating material; 10-way

[www.wago.com/280-440](http://www.wago.com/280-440)



**Item no.: 280-435**  
Operating tool; made of insulating material; 5-way; gray

[www.wago.com/280-435](http://www.wago.com/280-435)



**Item no.: 280-436**  
Operating tool; made of insulating material; 6-way

[www.wago.com/280-436](http://www.wago.com/280-436)



**Item no.: 280-438**  
Operating tool; made of insulating material; 8-way

[www.wago.com/280-438](http://www.wago.com/280-438)



**Item no.: 280-433**  
Operating tool; made of insulating material; 3-way

[www.wago.com/280-433](http://www.wago.com/280-433)

#### Insulation stop

Insulation stop



**Item no.: 231-672**  
Insulation stop; 0.75 - 1 mm<sup>2</sup>; dark gray

[www.wago.com/231-672](http://www.wago.com/231-672)

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

WAGO GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

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www.wago.com/231-670



Item no.: 231-670

Insulation stop; 0.08-0.2 mm² / 0.2 mm² "s"; white



Item no.: 231-671

Insulation stop; 0.25 - 0.5 mm²; light gray

www.wago.com/231-671

Strain relief

Strain relief housing



Item no.: 232-646

Strain relief housing; for female and male connectors; 2 parts; Pin spacing 5.08 mm; 16-pole; orange

www.wago.com/232-646

Coding

Coding



Item no.: 231-129

Coding key; snap-on type; light gray

www.wago.com/231-129

Downloads

Documentation

Additional Information

|                        |            |        |          |
|------------------------|------------|--------|----------|
| Technical Section      | 2019 Apr 3 | pdf    | Download |
| Technical explanations |            | 2.1 MB |          |

CAD/CAE-Data

CAD data

|                              |     |          |
|------------------------------|-----|----------|
| 2D/3D Models 231-646/018-000 | URL | Download |
|------------------------------|-----|----------|

CAE data

|                                   |     |          |
|-----------------------------------|-----|----------|
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Asset Administration Shell

|                                            |     |          |
|--------------------------------------------|-----|----------|
| Asset Administration Shell 231-646/018-000 | URL | Download |
|--------------------------------------------|-----|----------|

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

## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 231-646/018-000

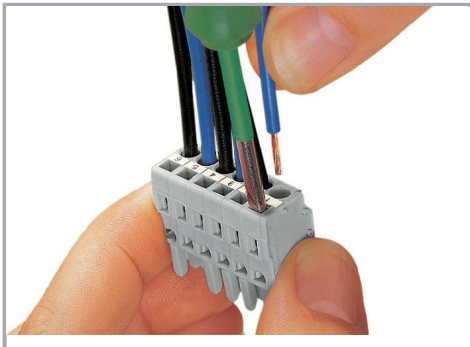
URL

Download

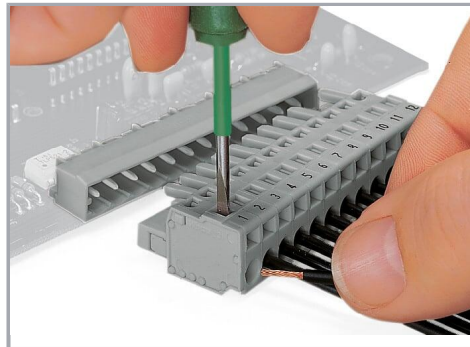
1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 16-pole;  
DIN-35 rail/panel mounting; Snap-in mounting feet; 2,50 mm²; orange

## Installation Notes

### Conductor termination



Inserting a conductor via 3.5 mm screwdriver –  
CAGE CLAMP® actuation parallel to conductor  
entry.



Inserting a conductor via 3.5 mm screwdriver –  
CAGE CLAMP® actuation perpendicular to  
conductor entry.



Inserting a conductor into CAGE CLAMP® unit  
via operating tool (231-291).



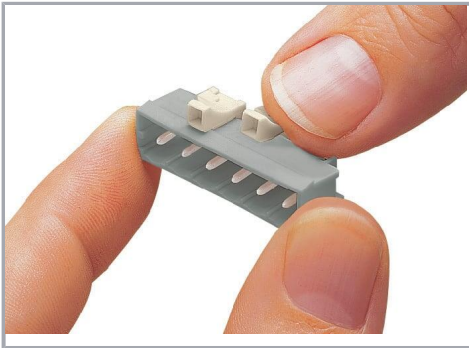
Inserting a conductor via operating tool.

### Coding

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

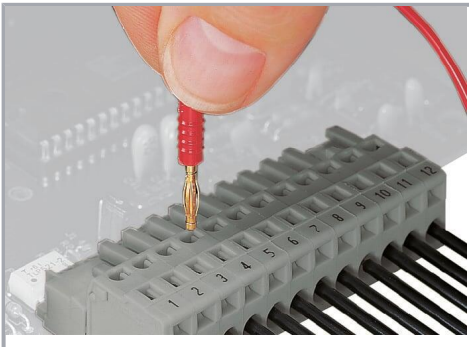
WAGO GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

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Coding a male header – fitting coding key(s).

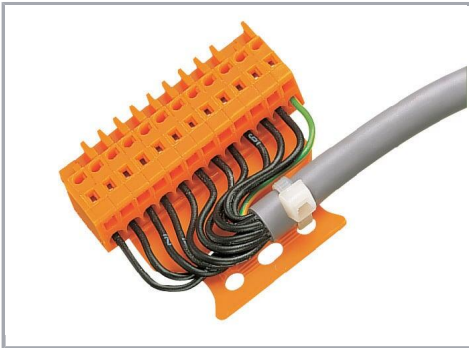
### Testing



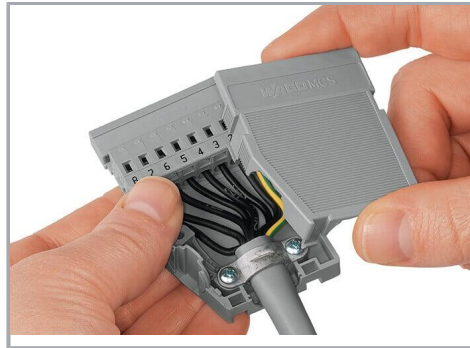
Testing – female connector with CAGE CLAMP®

Integrated test ports for testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug

### Installation



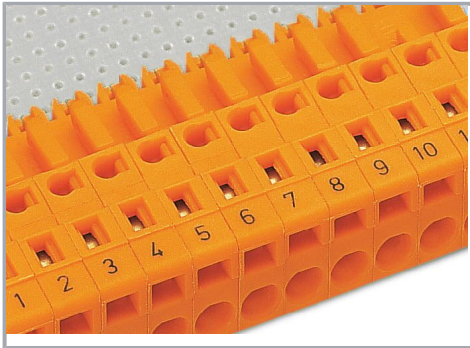
Male connector with strain relief plate



Strain relief housing shown with a male connector equipped with CAGE CLAMP®

### Marking

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



Labeling via direct marking or self-adhesive strips.

## Product family

### MCS MIDI Classic

[Show all products from the family](#)

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

WAGO GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

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