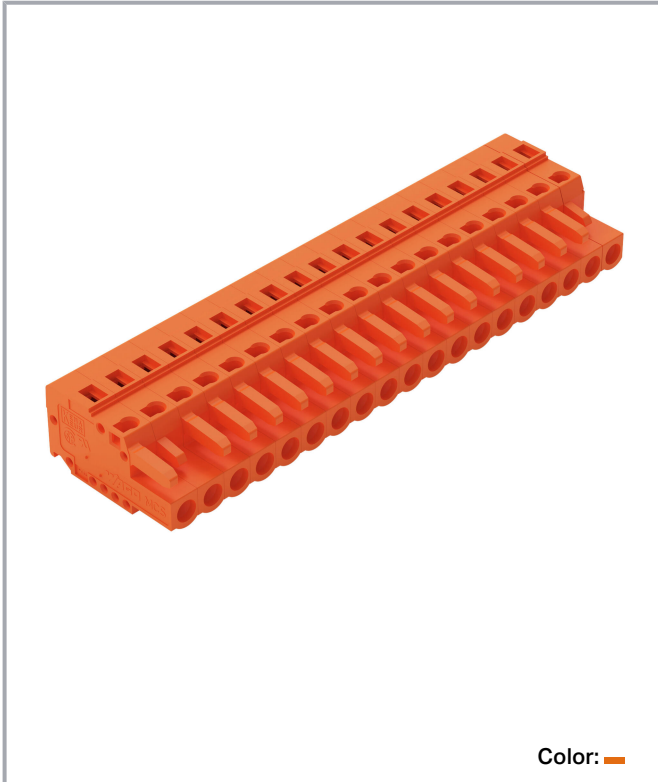


**Data sheet | Item number: 231-319/102-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 19-pole; with integrated end plate; 2,50 mm<sup>2</sup>; orange



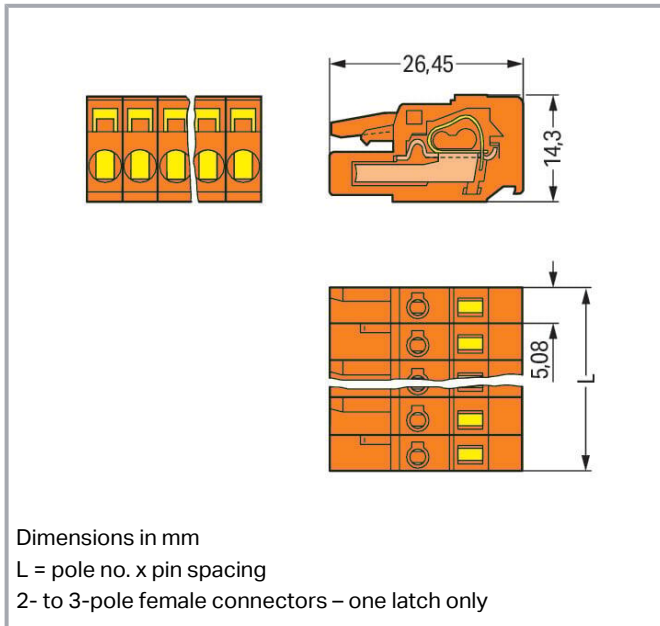
[www.wago.com/231-319/102-000](http://www.wago.com/231-319/102-000)



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

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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
- Integrated test ports
- 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:

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/>.

## Electrical data

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



### 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                 | 16 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          | 19 |
| Total number of potentials | 19 |
| Number of connection types | 1  |
| Number of levels           | 1  |

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## 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 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor                           | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1.5 mm <sup>2</sup>                 |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm <sup>2</sup>                 |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inches            |
| Pole number                                       | 19   |
| Conductor entry direction to mating direction     | 0°   |

## Physical data

|             |                         |
|-------------|-------------------------|
| Pin spacing | 5.08 mm / 0.2 inches    |
| Width       | 96.52 mm / 3.8 inches   |
| Height      | 14.3 mm / 0.563 inches  |
| Depth       | 26.45 mm / 1.041 inches |

## Mechanical Data

|                          |     |
|--------------------------|-----|
| Variable coding          | Yes |
| Anti-rotation protection | Yes |

## Plug-in connection

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

## Material data

|                      |  |
|----------------------|--|
| Note (material data) | Information on material specifications can be found here |
| Color                | orange   |
| Material group       | I  |

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



|                             |                                   |
|-----------------------------|-----------------------------------|
| Insulation material         | Polyamide (PA66)                  |
| Flammability class per UL94 | V0                                |
| Clamping spring material    | Chrome-nickel spring steel (CrNi) |
| Contact material            | Copper alloy                      |
| Contact plating             | Tin                               |
| Fire load                   | 0.475 MJ                          |
| Weight                      | 34.1 g                            |

### Environmental requirements

|                         |                |
|-------------------------|----------------|
| Limit temperature range | -60 ... +85 °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)              | 10 pcs                 |
| Packaging type        | box                    |
| Country of origin     | DE                     |
| GTIN                  | 4044918350006          |
| Customs tariff number | 85366990990            |

### Environmental Product Compliance

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

### Approvals / Certificates




#### General approvals

| Logo   | Approval                       | Additional Approval Text | Certificate name |
|--|--------------------------------|--------------------------|------------------|
|  | CB<br>DEKRA Certification B.V. | EN 61984, IEC 61984      | NL-39756/A1      |
|  | CCC<br>CQC                     | GB/T 13140.1             | CQC03003003013   |

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|  |                                       |          |           |
|--|---------------------------------------|----------|-----------|
|  | CSA<br>DEKRA Certification B.V.       | C22.2    | 1466354   |
|  | KEMA/KEUR<br>DEKRA Certification B.V. | EN 61984 | 71-121453 |
|  | UL<br>UL International Germany GmbH   | UL 1977  | E45171    |
|  | UR<br>Underwriters Laboratories Inc.  | UL 1059  | E45172    |



Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications

| Logo   | Approval                           | Additional Approval Text | Certificate name |
|--|------------------------------------|--------------------------|------------------|
|  | ABS<br>American Bureau of Shipping | -                        | 19-HG1869876-PDA |

Counterpart

|  |   |  |
|--|---|--|
|  | Item no.231-649<br>1-conductor male connector; CAGE CLAMP®; 2.5 mm <sup>2</sup> ; Pin spacing 5.08 mm; 19-pole; 2,50 mm <sup>2</sup> ; orange | <a href="http://www.wago.com/231-649">www.wago.com/231-649</a>                 |
|  | Item no.231-349/001-000<br>THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5.08 mm; 19-pole; orange                           | <a href="http://www.wago.com/231-349/001-000">www.wago.com/231-349/001-000</a> |

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Item no.231-549/001-000

THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5.08 mm; 19-pole; orange

[www.wago.com/231-549/001-000](http://www.wago.com/231-549/001-000)

## Optional accessories

### Cover

#### Cover



Item no.: 231-669

Lockout caps; for covering unused clamping units; orange

[www.wago.com/231-669](http://www.wago.com/231-669)

### 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.: 231-231

Combination operating tool; red

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



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)

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**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)

### Testing and measuring

#### Testing accessories



**Item no.: 210-136**  
Test plug; 2 mm Ø; with 500 mm cable; red

[www.wago.com/210-136](http://www.wago.com/210-136)



**Item no.: 231-661**  
Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm<sup>2</sup>; light gray

[www.wago.com/231-661](http://www.wago.com/231-661)

### Ferrule

#### Ferrule



**Item no.: 216-101**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-101](http://www.wago.com/216-101)



**Item no.: 216-104**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-104](http://www.wago.com/216-104)



**Item no.: 216-106**  
Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-106](http://www.wago.com/216-106)



**Item no.: 216-102**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-102](http://www.wago.com/216-102)



**Item no.: 216-103**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated

[www.wago.com/216-103](http://www.wago.com/216-103)



**Item no.: 216-123**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-123](http://www.wago.com/216-123)



**Item no.: 216-122**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-122](http://www.wago.com/216-122)



**Item no.: 216-124**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated

[www.wago.com/216-124](http://www.wago.com/216-124)



**Item no.: 216-142**  
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

[www.wago.com/216-142](http://www.wago.com/216-142)



**Item no.: 216-132**  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

[www.wago.com/216-132](http://www.wago.com/216-132)



**Item no.: 216-121**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-121](http://www.wago.com/216-121)



**Item no.: 216-143**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight

[www.wago.com/216-143](http://www.wago.com/216-143)

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crimped; acc. to DIN 46228, Part 1/08.92

|  |   |  |
|--|---|--|
|  | <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><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/216-244">www.wago.com/216-244</a> |

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

|   |  |  |
|---|--|--|
|  | <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> |

#### Jumpers

##### Jumper

|  |  |  |
|--|--|--|
|   | <b>Item no.: 231-905</b><br>Jumper; for conductor entry; 5-way; insulated; gray  | <a href="http://www.wago.com/231-905">www.wago.com/231-905</a> |
|  | <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> |

#### Insulation stop

##### Insulation stop

|  |  |  |
|--|--|--|
|  | <b>Item no.: 231-672</b><br>Insulation stop; 0.75 - 1 mm <sup>2</sup> ; dark gray                      | <a href="http://www.wago.com/231-672">www.wago.com/231-672</a> |
|  | <b>Item no.: 231-670</b><br>Insulation stop; 0.08-0.2 mm <sup>2</sup> / 0.2 mm <sup>2</sup> "s"; white | <a href="http://www.wago.com/231-670">www.wago.com/231-670</a> |

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









**Item no.: 231-671**  
Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; light gray

[www.wago.com/231-671](http://www.wago.com/231-671)

### Marking accessories

#### Marking strip

|  |   |  |
|--|---|--|
|    | <b>Item no.: 210-331/508-103</b><br>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  | <a href="http://www.wago.com/210-331/508-103">www.wago.com/210-331/508-103</a> |
|    | <b>Item no.: 210-331/508-104</b><br>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 | <a href="http://www.wago.com/210-331/508-104">www.wago.com/210-331/508-104</a> |
|    | <b>Item no.: 210-332/508-202</b><br>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             | <a href="http://www.wago.com/210-332/508-202">www.wago.com/210-332/508-202</a> |
|    | <b>Item no.: 210-332/508-204</b><br>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            | <a href="http://www.wago.com/210-332/508-204">www.wago.com/210-332/508-204</a> |
|    | <b>Item no.: 210-332/508-206</b><br>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            | <a href="http://www.wago.com/210-332/508-206">www.wago.com/210-332/508-206</a> |
|  | <b>Item no.: 210-332/508-205</b><br>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              | <a href="http://www.wago.com/210-332/508-205">www.wago.com/210-332/508-205</a> |

### Downloads

#### Documentation

##### Additional Information

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

### CAD/CAE-Data

#### CAD data

|                              |     |          |
|------------------------------|-----|----------|
| 2D/3D Models 231-319/102-000 | URL | Download |
|------------------------------|-----|----------|

#### CAE data

|                                   |     |          |
|-----------------------------------|-----|----------|
| EPLAN Data Portal 231-319/102-000 | URL | Download |
|-----------------------------------|-----|----------|

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

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We are always happy to take your call at +49 (571) 887-44222.

|  |                     |                          |
|--|---------------------|--------------------------|
| EPLAN Data Portal 231-319/102-000          | <a href="#">URL</a> | <a href="#">Download</a> |
| ZUKEN Portal 231-319/102-000               | <a href="#">URL</a> | <a href="#">Download</a> |
| <b>Asset Administration Shell</b>          |                     |                          |
| Asset Administration Shell 231-319/102-000 | <a href="#">URL</a> | <a href="#">Download</a> |

## Environmental Product Compliance

### Compliance Search

|   |                     |                          |
|---|---------------------|--------------------------|
| Environmental Product Compliance 231-319/102-000  | <a href="#">URL</a> | <a href="#">Download</a> |
| 1-conductor female connector; CAGE CLAMP®; 2.5 mm <sup>2</sup> ; Pin spacing 5.08 mm; 19-pole; with integrated end plate; 2,50 mm <sup>2</sup> ; orange |                     |                          |

## Installation Notes

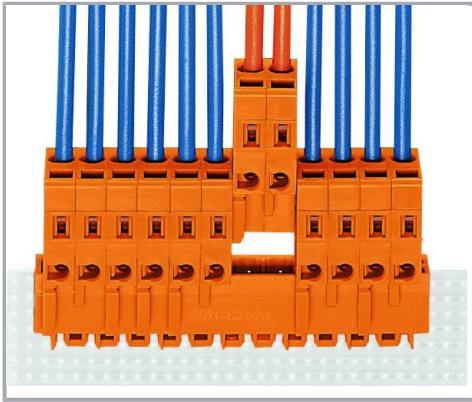
### Application



Total pole number for female connectors  
= pole number for male header

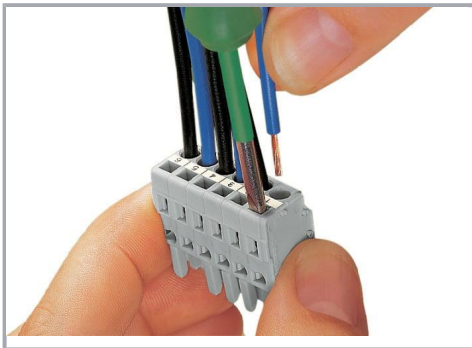
### Application

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

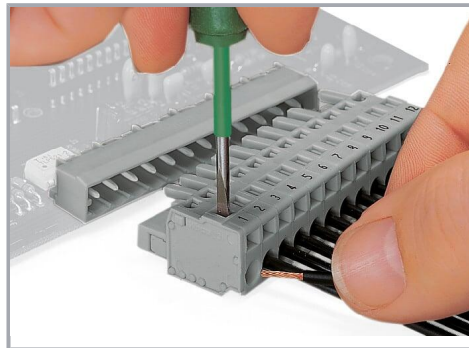


Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to "pole no. x pin spacing"!

#### Conductor termination

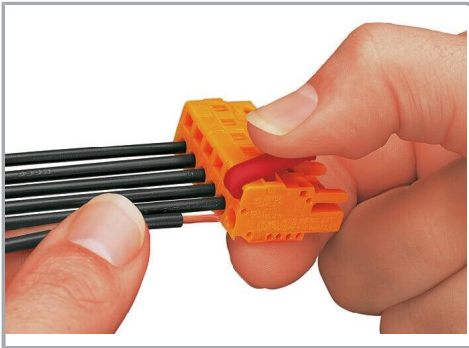


Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.

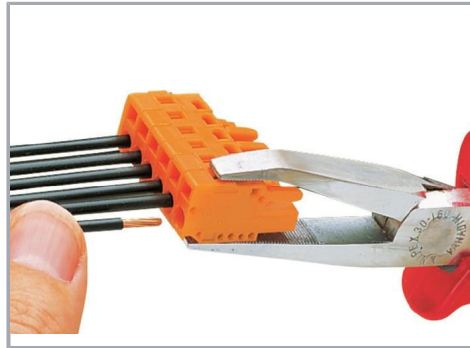


Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.

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



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



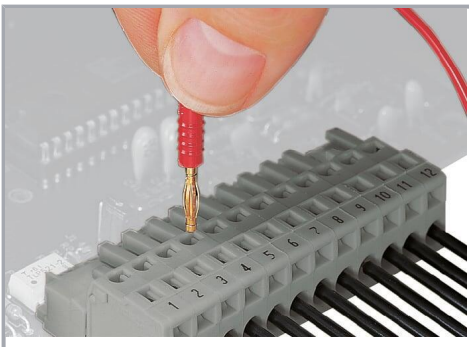
Inserting a conductor via operating tool.

### Coding



Coding a female connector by removing coding finger(s).

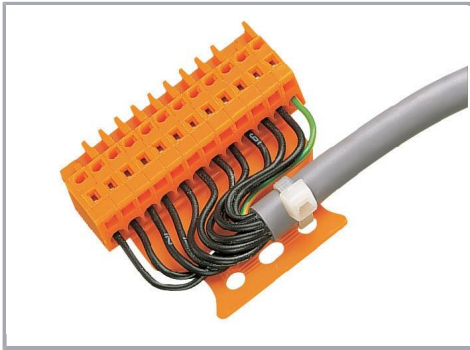
### Testing



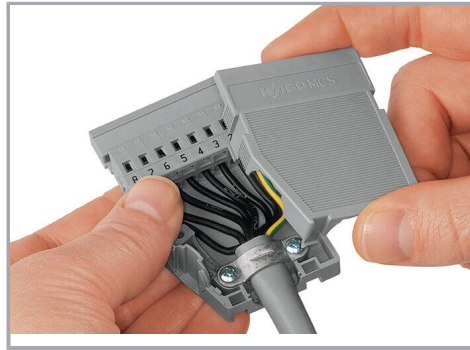
Testing – female connector with CAGE CLAMP®  
Integrated test ports for testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug

### Installation

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

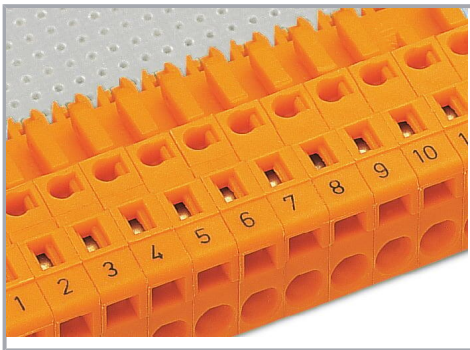


Male connector with strain relief plate



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

### Marking



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!