

## Data Sheet | Item Number: 231-635/109-000

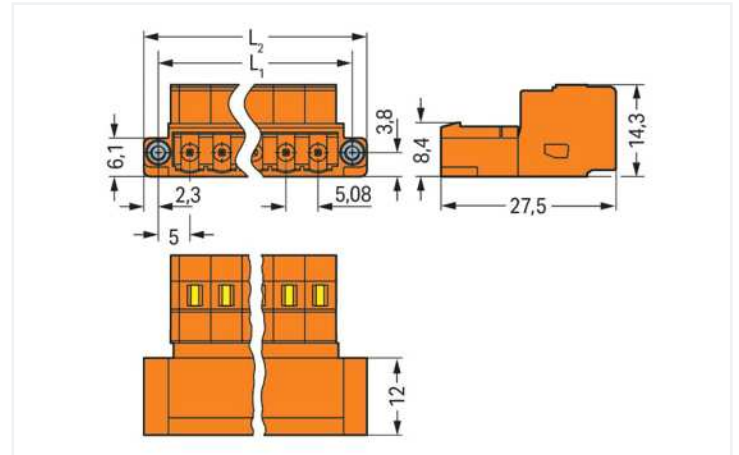
1-conductor male connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 5-pole; Threaded flange; 2,50 mm<sup>2</sup>; orange

<https://www.wago.com/231-635/109-000>



Color: ■ orange

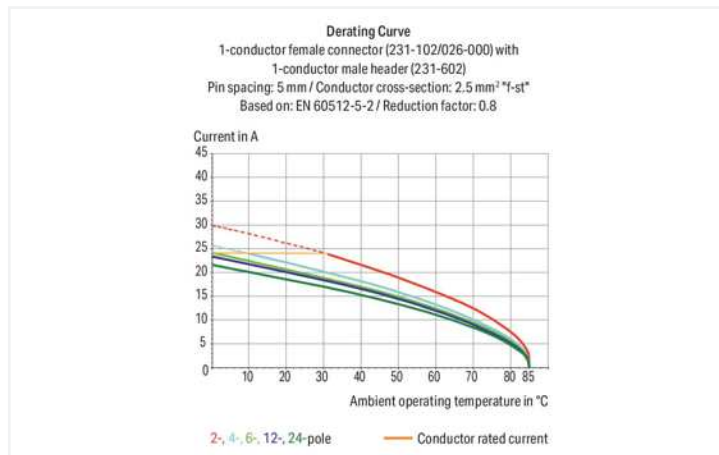
Similar to illustration



Dimensions in mm

$L1 = (\text{pole no.} \times \text{pin spacing}) + 5.4 \text{ mm}$

$L2 = (\text{pole no.} \times \text{pin spacing}) + 10 \text{ mm}$



- 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

### 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/>.

### Electrical data

| Ratings per          | IEC/EN 60664-1 |       |       |
|----------------------|----------------|-------|-------|
| Overvoltage category | III            | III   | II    |
| Pollution degree     | 3              | 2     | 2     |
| Nominal voltage      | 320 V          | 320 V | 630 V |
| Rated surge voltage  | 4 kV           | 4 kV  | 4 kV  |
| Rated current        | 12 A           | 12 A  | 12 A  |

| Approvals per | UL 1059 |   |       |
|---------------|---------|---|-------|
| Use group     | B       | C | D     |
| Rated voltage | 300 V   | - | 300 V |
| Rated current | 15 A    | - | 10 A  |

| Approvals per | UL 1977 |
|---------------|---------|
| Rated voltage | 600 V   |
| Rated current | 15 A    |

| Approvals per | CSA   |   |       |
|---------------|-------|---|-------|
| Use group     | B     | C | D     |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 15 A  | - | 10 A  |

## Connection data

|                            |   |
|----------------------------|---|
| Connection points          | 5 |
| Total number of potentials | 5 |
| Number of connection types | 1 |
| Number of levels           | 1 |

## 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                                       | 5  |
| Conductor entry direction to mating direction     | 0°   |

## Physical data

|             |                        |
|-------------|------------------------|
| Pin spacing | 5.08 mm / 0.2 inches   |
| Width       | 35.3 mm / 1.39 inches  |
| Height      | 14.3 mm / 0.563 inches |
| Depth       | 27.5 mm / 1.083 inches |

## Mechanical data

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

## Plug-in connection

|                                    |                     |
|------------------------------------|---------------------|
| Contact type (pluggable connector) | Male connector/plug |
| Connector (connection type)        | for conductor       |
| Mismatching protection             | No                  |
| Locking of plug-in connection      | Threaded flange     |

### Material data

|                             |  |
|-----------------------------|--|
| Note (material data)        | <a href="https://www.wago.com/us/material-specifications" href="_blank">Information on material specifications can be found here</a> |
| 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                   | 0.145 MJ   |
| Weight                      | 8.7 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               |
| PU (SPU)              | 50 pcs                 |
| Packaging type        | Box                    |
| Country of origin     | DE                     |
| GTIN                  | 4044918260077          |
| Customs tariff number | 85366930000            |

### Environmental Product Compliance

|   |                                      |
|---|--------------------------------------|
| CAS-No.                                   | 7439-92-1                            |
| REACH Candidate List Substance            | Lead                                 |
| RoHS Compliance Status                    | Compliant,With Exemption             |
| RoHS Exemption                            | 6(c)<br>7(a)<br>7(c)-I<br>7(c)-II    |
| SCIP notification number (Austria)        | b350afa2-8fd1-4662-af48-5f402c02cbcb |
| SCIP notification number (Belgium)        | 08213496-62a1-40f2-8348-c1ff3919a822 |
| SCIP notification number (Bulgaria)       | ef5ca910-1baa-45d4-90ec-982795e7009d |
| SCIP notification number (Czech Republic) | 69619675-dce9-415a-a80b-690742803149 |
| SCIP notification number (Denmark)        | be3861c7-6cca-400f-8687-1b841c68e562 |
| SCIP notification number (Finland)        | 77b0ea4e-a9db-49cb-af19-b987a23f9ed5 |
| SCIP notification number (France)         | 886fb167-9ed7-44e5-95a4-0f6cab1cfd5e |
| SCIP notification number (Germany)        | 6255d3dd-21ce-4260-b877-143c69cb1a1a |
| SCIP notification number (Hungary)        | 198e3a28-901a-41cf-965e-c64fe5b68e13 |
| SCIP notification number (Italy)          | e1c75636-bd11-4cb1-99b4-1937f01cb59d |
| SCIP notification number (Netherlands)    | 496ca0f0-ec2a-4dbe-8933-b85545f64599 |
| SCIP notification number (Poland)         | 7496ba2f-b3f1-4926-bffa-1aaededc3c8c |
| SCIP notification number (Romania)        | 51e3b5fc-97e6-4eeb-b8a1-47d7fa2c3da7 |
| SCIP notification number (Sweden)         | 7233b580-ab61-4617-ab71-02a8d2eee7c4 |

### Approvals / Certificates

## General approvals



| Approval                              | Standard  | Certificate Name |
|---------------------------------------|-----------|------------------|
| CB<br>DEKRA Certification B.V.        | IEC 61984 | NL-39756/A1      |
| 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



| Approval                      | Standard | Certificate Name |
|-------------------------------|----------|------------------|
| Railway<br>WAGO GmbH & Co. KG | -        | Railway Ready    |

## Approvals for marine applications



| Approval                  | Standard  | Certificate Name |
|---------------------------|-----------|------------------|
| BV<br>Bureau Veritas S.A. | IEC 60998 | 11915/D0 BV      |

## Downloads

## Environmental Product Compliance

## Compliance Search

Environmental Product  
Compliance  
231-635/109-000



## Documentation

## Additional Information

Technical Section

03.04.2019

pdf  
1949.09 KB



## CAD/CAE-Data

## CAD data

2D/3D Models  
231-635/109-000



## CAE data

EPLAN Data Portal  
231-635/109-000



ZUKEN Portal  
231-635/109-000



## 1 Compatible Products

## 1.1 System counterpart

### 1.1.1 Female connector/socket



**Item No.: 231-305/107-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 5-pole; Screw flange; 2,50 mm<sup>2</sup>; orange

**Item No.: 2231-305/107-000**

1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 5-pole; Screw flange; 2,50 mm<sup>2</sup>; orange

**Item No.: 231-2305/107-000**

2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 5-pole; Screw flange; 2,50 mm<sup>2</sup>; orange

### 1.2 Optional Accessories

#### 1.2.1 Coding

##### 1.2.1.1 Coding



**Item No.: 231-129**

Coding key; snap-on type; light gray

#### 1.2.2 Cover

##### 1.2.2.1 Cover



**Item No.: 231-669**

Lockout caps; for covering unused clamping units; orange

#### 1.2.3 Ferrule

##### 1.2.3.1 Ferrule



**Item No.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-321**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-151**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-131**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-322**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-132**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-152**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-241**

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



**Item No.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-221**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-141**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



**Item No.: 216-101**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-121**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-242**

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



**Item No.: 216-262**

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

### 1.2.3.1 Ferrule



**Item No.: 216-202**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-222**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**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



**Item No.: 216-102**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-122**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-243**

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



**Item No.: 216-263**

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



**Item No.: 216-203**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-223**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-103**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated



**Item No.: 216-143**

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



**Item No.: 216-123**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-204**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-224**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-244**

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



**Item No.: 216-264**

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



**Item No.: 216-284**

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



**Item No.: 216-124**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated



**Item No.: 216-144**

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



**Item No.: 216-104**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-106**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated; silver-colored

### 1.2.4 Insulation stop

#### 1.2.4.1 Insulation stop



**Item No.: 231-670**

Insulation stop; 0.08-0.2 mm<sup>2</sup> / 0.2 mm<sup>2</sup> "s"; white



**Item No.: 231-671**

Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; light gray



**Item No.: 231-672**

Insulation stop; 0.75 - 1 mm<sup>2</sup>; dark gray

### 1.2.5 Jumper

#### 1.2.5.1 Jumper



**Item No.: 231-902**

Jumper; for conductor entry; 2-way; insulated; gray



**Item No.: 231-903**

Jumper; for conductor entry; 3-way; insulated; gray









**Item No.: 231-905**

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


### 1.2.6 Marking

1.2.6.1 Marking strip

|  |  |   |   |
|--|--|---|---|
|  <p><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</p> |  <p><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</p>  |  <p><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</p> |  <p><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</p> |
|  <p><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</p>           |  <p><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</p> |   |   |

1.2.7 Strain relief











1.2.7.1 Strain relief housing



**Item No.: 232-635**  
Strain relief housing; for female and male connectors; 2 parts; Pin spacing 5.08 mm; 5-pole; orange

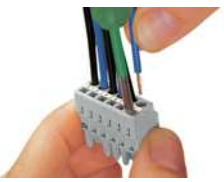


1.2.8 Tool

1.2.8.1 Operating tool

|  |   |  |  |
|--|---|--|--|
|  <p><b>Item No.: 210-720</b><br/>Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured</p> |  <p><b>Item No.: 210-657</b><br/>Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured</p> |  <p><b>Item No.: 209-132</b><br/>Operating tool; for connecting comb-style jumper bar; made of insulating material; 2-way; natural</p> |  <p><b>Item No.: 209-130</b><br/>Operating tool; made of insulating material; 1-way; for 264 Series (1-1/2-way), 280, 281 Series (up to 3-way); natural</p> |
|  <p><b>Item No.: 231-291</b><br/>Operating tool; made of insulating material; 1-way; loose; red</p>                       |  <p><b>Item No.: 231-131</b><br/>Operating tool; made of insulating material; 1-way; loose; white</p>                            |  <p><b>Item No.: 280-432</b><br/>Operating tool; made of insulating material; 2-way; white</p>   |  <p><b>Item No.: 280-433</b><br/>Operating tool; made of insulating material; 3-way</p>   |
|  <p><b>Item No.: 280-434</b><br/>Operating tool; made of insulating material; 4-way</p>                                   |  <p><b>Item No.: 280-435</b><br/>Operating tool; made of insulating material; 5-way; gray</p>                                    |  |  |

Installation Notes

Conductor termination

|  |   |   |  |
|--|---|---|--|
|  <p>Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.</p> |  <p>Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.</p> |  <p>Inserting a conductor into CAGE CLAMP® unit via operating tool (231-291).</p> |  <p>Inserting a conductor via operating tool.</p> |
|--|---|---|--|

## Coding



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



Labeling via direct marking or self-adhesive strips.