

# Data Sheet | Item Number: 231-333/108-000

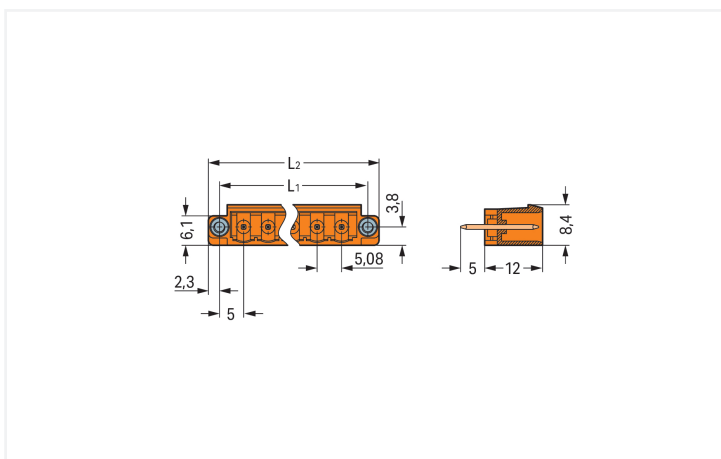
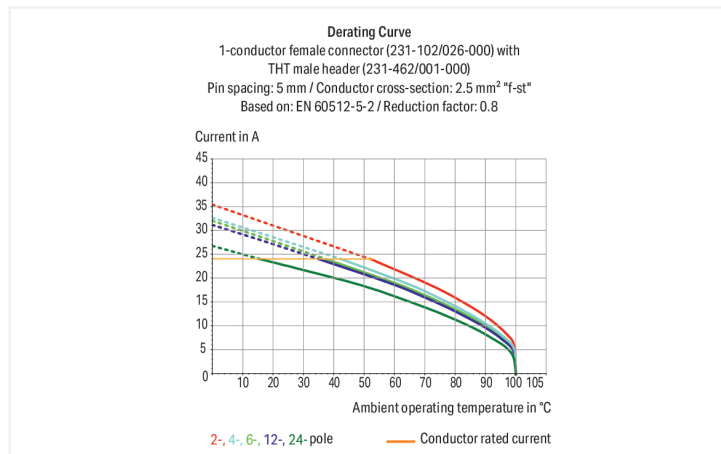
THT male header; 1.0 x 1.0 mm solder pin; straight; Threaded flange; Pin spacing 5.08 mm; 3-pole; orange

<https://www.wago.com/231-333/108-000>



Color: ■ orange

Similar to illustration



Dimensions in mm

L1 = (pole no. x pin spacing) + 5.4 mm L2 = (pole no. x pin spacing) + 10 mm

Male connector, 231 Series, orange

Enjoy easy electrical installations with this male connector (item number 231-333/108-000). The dimensions are (25.24 x 17 x 8.4) mm (width x height x depth).

Tin is used for coating the contact surfaces. The pcb connector is designed for THT soldering.

## 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  
3.8 mm pin projection for male headers with straight solder pins  
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 impulse withstand 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 | 10 A    | - | 10 A  |

| Approvals per | UL 1977 |
|---------------|---------|
| Rated voltage | 600 V   |
| Rated current | 10 A    |

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

## Connection Data

|                            |   |
|----------------------------|---|
| Total number of potentials | 3 |
| Number of connection types | 1 |
| Number of levels           | 1 |

| Connection 1 |   |
|--------------|---|
| Pole number  | 3 |

## Physical data

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 5.08 mm / 0.2 inches     |
| Width                                | 25.24 mm / 0.994 inches  |
| Height                               | 17 mm / 0.669 inches     |
| Height from the surface              | 12 mm / 0.472 inches     |
| Depth                                | 8.4 mm / 0.331 inches    |
| Solder pin length                    | 5 mm                     |
| Solder pin dimensions                | 1 x 1 mm                 |
| Drilled hole diameter with tolerance | 1.4 <sup>(+0.1)</sup> mm |

## Mechanical data

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

### Plug-in connection

|                                    |                     |
|------------------------------------|---------------------|
| Contact type (pluggable connector) | Male connector/plug |
| Connector (connection type)        | for PCB             |
| Mismating protection               | No                  |
| Mating direction to the PCB        | 90 °                |
| Locking of plug-in connection      | Threaded flange     |

### PCB contact

|                                     |  |
|-------------------------------------|--|
| PCB contact                         | THT                                      |
| Solder pin arrangement              | over the entire male connector (in-line) |
| Number of solder pins per potential | 1  |

### Material data

|                                    |  |
|------------------------------------|--|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | orange   |
| Material group                     | I  |
| Insulation material (main housing) | Polyamide (PA66)   |
| Flammability class per UL94        | V0   |
| Contact material                   | Electrolytic copper (E <sub>Cu</sub> )                                   |
| Contact Plating                    | Tin  |
| Fire load                          | 0.032 MJ   |
| Weight                             | 1.8 g  |

### Environmental requirements

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

### Environmental Testing

|   |   |
|---|---|
| Test specification:<br>Railway applications –<br>Rolling stock –<br>Electronic equipment            | DIN EN 50155 (VDE 0115-200):2022-06                 |
| Test procedure:<br>Railway applications –<br>Rolling stock equipment –<br>Vibration and shock tests | DIN EN 61373 (VDE 0115-0106):2011-04                |
| Spectrum/Mounting location  | Service life test, Category 1, Class A/B            |
| Functional test with noise-like oscillations  | Test passed according to Section 8 of the standard  |
| Frequency   | f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz    |
| Acceleration  | 0.101g (highest test level used for all axes)       |
| Test duration per axis  | 10 min.   |
| Test directions   | X, Y and Z axes                                     |
| Monitoring of contact faults and interruptions  | Passed  |
| Voltage drop measurement before and after each axis   | Passed  |
| Simulated service life test through increased levels of noise-like oscillations                     | Test passed according to Section 9 of the standard  |
| Frequency   | f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz    |
| Acceleration  | 0.572g (highest test level used for all axes)       |
| Test duration per axis  | 5 h   |
| Test directions   | X, Y and Z axes                                     |
| Extended testing: Monitoring of contact faults and interruptions                                    | Passed  |
| Extended testing: Voltage drop measurement before and after each axis                               | Passed  |
| Shock test  | Test passed according to Section 10 of the standard |

### Environmental Testing

|   |   |
|---|---|
| Shock pulse form  | Half sine                                 |
| Acceleration  | 5g (highest test level used for all axes) |
| Shock duration  | 30 ms                                     |
| Number of shocks (per axis)   | 3 pos. und 3 neg.                         |
| Test directions   | X, Y and Z axes                           |
| Extended testing: Monitoring of contact faults and interruptions      | Passed                                    |
| Extended testing: Voltage drop measurement before and after each axis | Passed                                    |
| Vibration and shock stress for rolling stock equipment                | Passed                                    |

### Commercial data

|                       |                        |
|-----------------------|------------------------|
| Product Group         | 3 (Multi Conn. System) |
| PU (SPU)              | 200 pcs                |
| Packaging type        | Box                    |
| Country of origin     | PL                     |
| GTIN                  | 4044918865289          |
| Customs tariff number | 85366930000            |

### Product Classification

|             |                      |
|-------------|----------------------|
| UNSPSC      | 39121409             |
| eCl@ss 10.0 | 27-44-04-02          |
| eCl@ss 9.0  | 27-44-04-02          |
| ETIM 9.0    | EC002637             |
| ETIM 10.0   | EC002637             |
| ECCN        | NO US CLASSIFICATION |

### Environmental Product Compliance

|   |                                      |
|---|--------------------------------------|
| RoHS Compliance Status                    | Compliant,With Exemption             |
| RoHS Exemption                            | 6(c)                                 |
| SCIP notification number (Austria)        | f8133388-6054-41a6-a3e3-3ba0a90f6ea1 |
| SCIP notification number (Belgium)        | 2b292ab8-9709-4e7f-b2d3-2f17d4126009 |
| SCIP notification number (Bulgaria)       | da1c7e66-d92f-4fb3-b28d-6f3f6b078fbd |
| SCIP notification number (Czech Republic) | 945de43f-2cd6-4a7e-8e54-ecc37001c22b |
| SCIP notification number (Denmark)        | 46c0d8d3-4f73-4af6-af55-63808da0fe0e |
| SCIP notification number (Finland)        | 1cd1d328-c49a-4fd4-a5ff-91cd7d3d31fb |
| SCIP notification number (France)         | b9960edd-746f-47ff-9bc9-d48b59598599 |
| SCIP notification number (Germany)        | c95ab9bb-8a5b-44c2-bbfa-3c12cd3421cd |
| SCIP notification number (Hungary)        | 29666462-9543-4101-b935-1ab30d87d043 |
| SCIP notification number (Italy)          | c78f5158-15b2-465d-92c3-1c4f7e7efd26 |
| SCIP notification number (Netherlands)    | 54f300dd-1b0d-4151-a778-8b257897800b |
| SCIP notification number (Poland)         | eac0d781-89af-4ddb-81b8-ae51749c8c6c |
| SCIP notification number (Romania)        | 0be05d0f-9d15-42dd-92cb-7734f1f3506c |
| SCIP notification number (Sweden)         | 23ada34e-4b9c-4518-b6bb-0d9bcca5dc55 |

Approvals / Certificates

General approvals



| Approval                              | Standard  | Certificate Name |
|---------------------------------------|-----------|------------------|
| CB<br>DEKRA Certification B.V.        | IEC 61984 | NL-113351        |
| CSA<br>DEKRA Certification B.V.       | C22.2     | 1466354          |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 61984  | 71-130478 REV.1  |
| 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    |

Downloads

Environmental Product Compliance

Compliance Search

|   |   |
|---|---|
| Environmental Product Compliance<br>231-333/108-000 | ↓ |
|---|---|

Documentation

Additional Information

|                   |            |                   |   |
|-------------------|------------|-------------------|---|
| Technical Section | 03.04.2019 | pdf<br>2027.26 KB | ↓ |
|-------------------|------------|-------------------|---|

CAD/CAE-Data

CAD data

|                                 |   |
|---------------------------------|---|
| 2D/3D Models<br>231-333/108-000 | ↓ |
|---------------------------------|---|

CAE data

|                                      |   |
|--------------------------------------|---|
| EPLAN Data Portal<br>231-333/108-000 | ↓ |
| ZUKEN Portal<br>231-333/108-000      | ↓ |

PCB Design

|  |   |
|--|---|
| Symbol and Footprint<br>via SamacSys<br>231-333/108-000        | ↓ |
| Symbol and Footprint<br>via Ultra Librarian<br>231-333/108-000 | ↓ |

## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Female connector/socket



**Item No.: 231-303/107-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 3-pole; Screw flange; orange

**Item No.: 2231-303/107-000**

1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 3-pole; Screw flange; 2,50 mm²; orange

**Item No.: 231-2303/107-000**

2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 3-pole; Screw flange; 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

##### 1.2.1.2 Intermediate plate

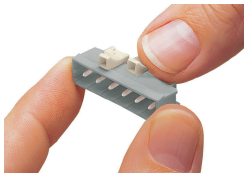


**Item No.: 231-500**

Spacer; for formation of groups; light gray

## Installation Notes

### Coding



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