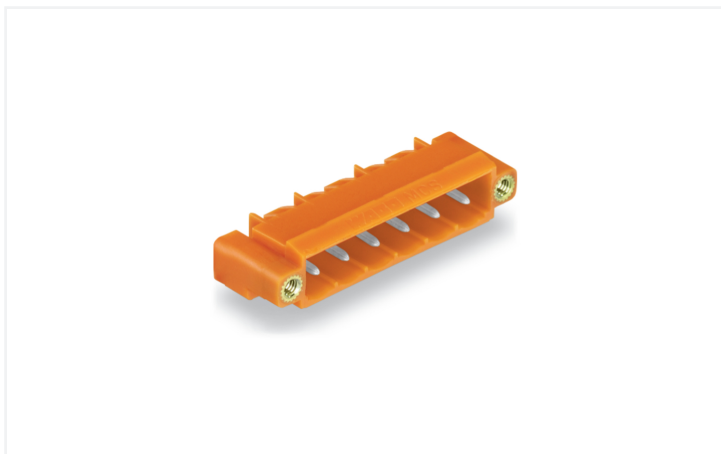


# Data Sheet | Item Number: 231-569/108-000

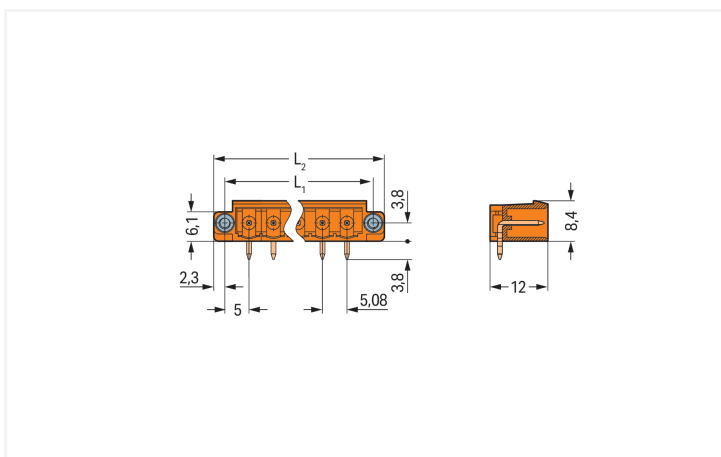
THT male header; 1.2 x 1.2 mm solder pin; angled; Threaded flange; Pin spacing 5.08 mm; 9-pole; orange

<https://www.wago.com/231-569/108-000>



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

This male connector (item number 231-569/108-000) simplifies electrical installations. The dimensions are (55.72 x 12.2 x 12) mm (width x height x depth).

The contact surface is coated with tin. THT is used to assemble the pcb connector.

## 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                 | 250 V          | 320 V | 630 V |
| Rated impulse withstand voltage | 4 kV           | 4 kV  | 4 kV  |
| Rated current                   | 16 A           | 16 A  | 16 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

|                            |   |
|----------------------------|---|
| Total number of potentials | 9 |
| Number of connection types | 1 |
| Number of levels           | 1 |

| Connection 1 |   |
|--------------|---|
| Pole number  | 9 |

## Physical data

|                         |                         |
|-------------------------|-------------------------|
| Pin spacing             | 5.08 mm / 0.2 inches    |
| Width                   | 55.72 mm / 2.194 inches |
| Height                  | 12.2 mm / 0.48 inches   |
| Height from the surface | 8.4 mm / 0.331 inches   |
| Depth                   | 12 mm / 0.472 inches    |
| Solder pin length       | 3.8 mm                  |
| Solder pin dimensions   | 1.2 x 1.2 mm            |
| !                       | 1.7 (+0.1) 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        | 0°                  |
| 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                          | 0.064 MJ   |
| Weight                             | 4.2 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)              | 100 pcs                |
| Packaging type        | Box                    |
| Country of origin     | PL                     |
| GTIN                  | 4045454845445          |
| 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)        | 20289996-7b21-4741-8b40-15b2f0ea8f24 |
| SCIP notification number (Belgium)        | a39d2b86-ed32-4f8a-8b1e-1d665cd0beaf |
| SCIP notification number (Bulgaria)       | 188811a1-78c3-48b9-9b26-57c4314845c9 |
| SCIP notification number (Czech Republic) | b48f0c44-7304-4c9a-8783-a72f1890ecd6 |
| SCIP notification number (Denmark)        | bffc13c5-dd96-4bde-95a4-ec5ee2247451 |
| SCIP notification number (Finland)        | 79f1506f-a894-4497-9301-fdafac7e85f1 |
| SCIP notification number (France)         | a4a7a2e8-bae0-4312-8167-462229c3bda1 |
| SCIP notification number (Germany)        | 1e9e6b47-672d-48d9-9e2e-f5b145695dac |
| SCIP notification number (Hungary)        | 0f0a485e-f05b-4b2b-9799-4e3756af88ad |
| SCIP notification number (Italy)          | eb69a57c-ac67-408d-970d-92fc8cee4c67 |
| SCIP notification number (Netherlands)    | 89b805f9-bc75-442f-8f0c-a0c3294c736e |
| SCIP notification number (Poland)         | 16aa0b82-24ef-4bda-b047-4532329a3591 |
| SCIP notification number (Romania)        | 9b00aed0-9655-4cce-a61d-a446d2eb399b |
| SCIP notification number (Sweden)         | 955b34b6-3e0a-4027-9824-de70c5a5f7cb |

**Approvals / Certificates**

**General approvals**



| Approval                              | Standard | Certificate Name |
|---------------------------------------|----------|------------------|
| CSA<br>DEKRA Certification B.V.       | C22.2    | 1466354          |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 61984 | 71-130478 REV.1  |
| 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/E0 BV      |

**Downloads**

**Environmental Product Compliance**

| Compliance Search                                   |                   |
|---|-------------------|
| Environmental Product Compliance<br>231-569/108-000 | <a href="#">↓</a> |

**Documentation**

| Additional Information |            |                   |                   |
|------------------------|------------|-------------------|-------------------|
| Technical Section      | 03.04.2019 | pdf<br>2027.26 KB | <a href="#">↓</a> |

**CAD/CAE-Data**

| CAD data                        |                   |
|---------------------------------|-------------------|
| 2D/3D Models<br>231-569/108-000 | <a href="#">↓</a> |

| CAE data                        |                   |
|---------------------------------|-------------------|
| ZUKEN Portal<br>231-569/108-000 | <a href="#">↓</a> |

PCB Design

Symbol and Footprint  
via SamacSys  
231-569/108-000



Symbol and Footprint  
via Ultra Librarian  
231-569/108-000



1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket



Item No.: [231-309/107-000](#)

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 9-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

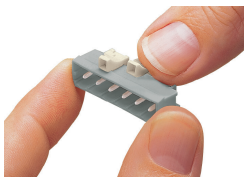


Item No.: [231-500](#)

Spacer; for formation of groups; light gray

Installation Notes

Coding



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