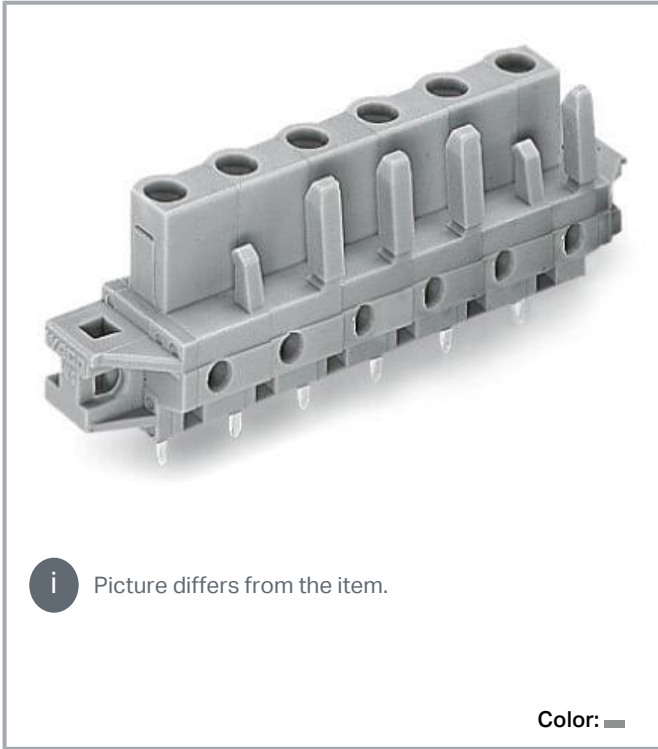


**Data sheet | Item number: 232-740/031-000**

THT female header; straight; Pin spacing 7.5 mm; 10-pole; clamping collar; 0.6 x 1.0 mm solder pin; gray

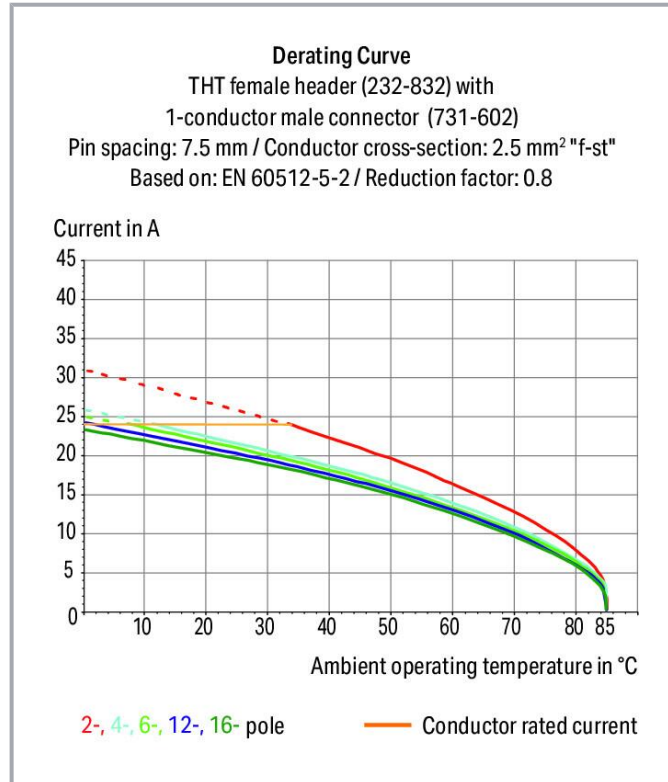


[www.wago.com/232-740/031-000](http://www.wago.com/232-740/031-000)



**i** Picture differs from the item.

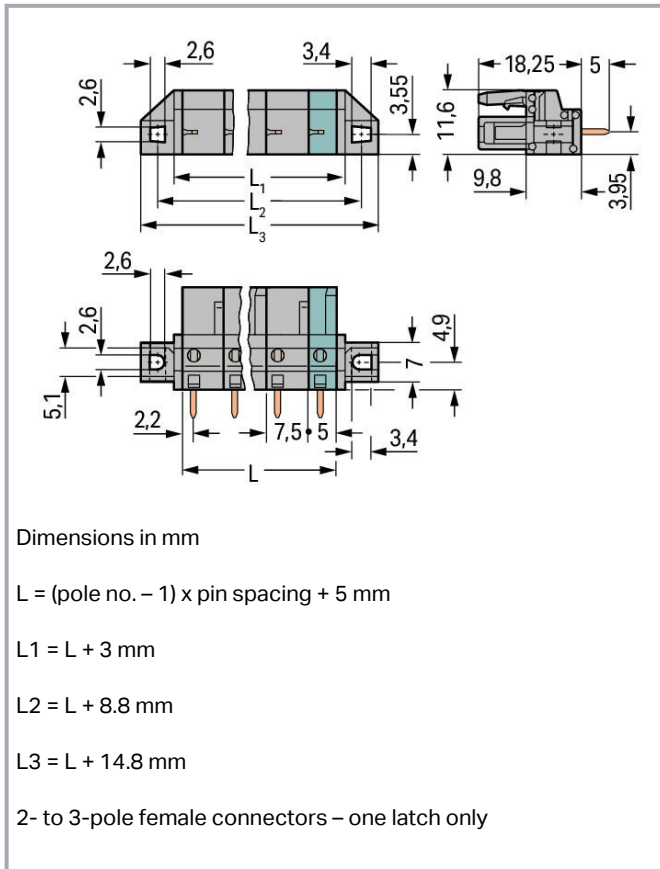
Color:



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

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## Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- 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.

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



## 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**

| Ratings per                   | IEC/EN 60664-1  |
|-------------------------------|---|
| Nominal voltage (III/3)       | 500 V   |
| Rated impulse voltage (III/3) | 6 kV  |
| Rated voltage (III/2)         | 630 V   |
| Rated impulse voltage (III/2) | 6 kV  |
| Nominal voltage (II/2)        | 1000 V  |
| Rated surge voltage (II/2)    | 6 kV  |
| Rated current                 | 12 A  |
| Legend (ratings)              | (III / 2) ≙ Overvoltage category III / Pollution degree 2 |

**Ratings per UL 1059**

| 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  |

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

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### Connection data

|                            |    |
|----------------------------|----|
| Total number of potentials | 10 |
| Number of connection types | 1  |
| Number of levels           | 1  |

### Connection 1

|             |    |
|-------------|----|
| Pole number | 10 |
|-------------|----|

### Physical data

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 7.5 mm / 0.295 inches    |
| Width                                | 87.3 mm / 3.437 inches   |
| Height                               | 23.25 mm / 0.915 inches  |
| Height from the surface              | 18.25 mm / 0.719 inches  |
| Depth                                | 11.6 mm / 0.457 inches   |
| Solder pin length                    | 5 mm                     |
| Solder pin dimensions                | 0.6 x 1 mm               |
| Drilled hole diameter with tolerance | 1.3 <sup>(+0.1)</sup> mm |

### Mechanical Data

|                          |   |
|--------------------------|---|
| Variable coding          | Yes                                     |
| Mounting type            | Mounting flange                         |
| Mounting type            | Feed-through mounting<br>Panel mounting |
| Anti-rotation protection | Yes                                     |

### Plug-in connection

|                                      |                         |
|--------------------------------------|-------------------------|
| Contact type (pluggable connector)   | Female connector/socket |
| Connector (connection type)          | for PCB                 |
| Mismating protection                 | No                      |
| Plugging without loss of pin spacing | No                      |
| Mating direction to the PCB          | 90 °                    |
| Locking of plug-in connection        | none                    |

### PCB contact

|                        |  |
|------------------------|--|
| PCB contact            | THT  |
| Solder pin arrangement | over the entire female connector (in-line) |

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

|                                     |   |
|-------------------------------------|---|
| Number of solder pins per potential | 1 |
|-------------------------------------|---|

## Material Data

Note (material data)

Information on material specifications can be found here

|                             |                  |
|-----------------------------|------------------|
| Color                       | gray             |
| Material group              | I                |
| Insulation material         | Polyamide (PA66) |
| Flammability class per UL94 | V0               |
| Contact material            | Copper alloy     |
| Contact plating             | Tin              |
| Fire load                   | 0.349 MJ         |
| Weight                      | 11.6 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           | 27-44-04-02            |
| eCl@ss 9.0            | 27-44-04-02            |
| ETIM 8.0              | EC002637               |
| ETIM 7.0              | EC002637               |
| PU (SPU)              | 25 pcs                 |
| Packaging type        | box                    |
| Country of origin     | DE                     |
| GTIN                  | 4044918625975          |
| Customs tariff number | 85366990990            |

## Environmental Product Compliance



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

## Approvals / Certificates


### General approvals

Certificate




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

| Logo   | Approval                             | Additional Approval Text | name    |
|--|--------------------------------------|--------------------------|---------|
|  | UR<br>Underwriters Laboratories Inc. | UL 1059                  | E45172  |
|  | UR<br>Underwriters Laboratories Inc. | UL 1977                  | E 45171 |

## 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-<br>HG15869876-<br>PDA |
|  | BV<br>Bureau Veritas S.A.                        | IEC 60998                | 11915/D0 BV               |
|   | DNV GL<br>Det Norske Veritas, Germanischer Lloyd | -                        | TAE000016Z                |

## Counterpart



Item no.731-610

1-conductor male connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 7.5 mm; 10-pole; 2,50 mm<sup>2</sup>; gray[www.wago.com/731-610](http://www.wago.com/731-610)

## Optional accessories

## Testing and measuring

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

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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.: 231-662**

Test plugs for female connectors; for 7.5 mm and 7.62 mm pin spacing; 2,50 mm<sup>2</sup>; light gray

[www.wago.com/231-662](http://www.wago.com/231-662)

**Mounting**

Mounting accessories



**Item no.: 209-147**

Self-tapping screw

[www.wago.com/209-147](http://www.wago.com/209-147)



**Item no.: 231-194**

Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø

[www.wago.com/231-194](http://www.wago.com/231-194)



**Item no.: 231-195**

Screw with nut; M2x12; for fixing element

[www.wago.com/231-195](http://www.wago.com/231-195)



**Item no.: 231-295**

Screw with nut

[www.wago.com/231-295](http://www.wago.com/231-295)

**Downloads**

**Documentation**

**Additional Information**

|                        |            |        |          |
|------------------------|------------|--------|----------|
| Technical Section      | 2019 Apr 3 | pdf    | Download |
| Technical explanations |            | 2.0 MB |          |

**CAD/CAE-Data**

**CAE data**

|                                   |     |          |
|-----------------------------------|-----|----------|
| EPLAN Data Portal 232-740/031-000 | URL | Download |
| EPLAN Data Portal 232-740/031-000 | URL | Download |

**PCB Design**

|                                      |     |          |
|--------------------------------------|-----|----------|
| Symbol and Footprint 232-740/031-000 | URL | Download |
|--------------------------------------|-----|----------|

CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

**Supported formats:**

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



- Accel EDA 14 & 15
- Altium 6 to current version
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

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## Environmental Product Compliance

### Compliance Search

| Environmental Product Compliance 232-740/031-000   | URL | Download |
|--|-----|----------|
| THT female header; straight; Pin spacing 7.5 mm; 10-pole; clamping collar; 0.6 x 1.0 mm solder pin; gray |     |          |

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## Installation Notes

### Application

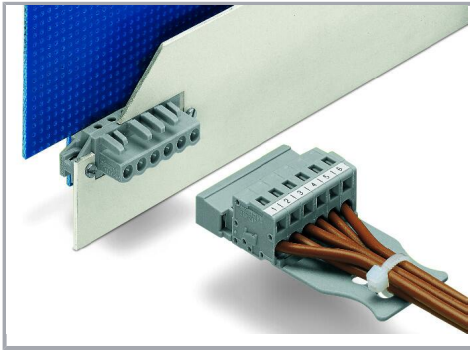
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The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

## Product family

**MCS MIDI Classic**

[Show all products from the family](#)

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