

## Data Sheet | Item Number: 733-363

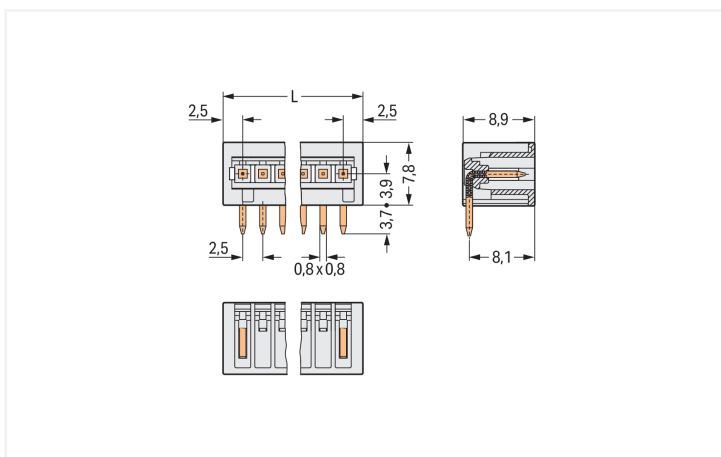
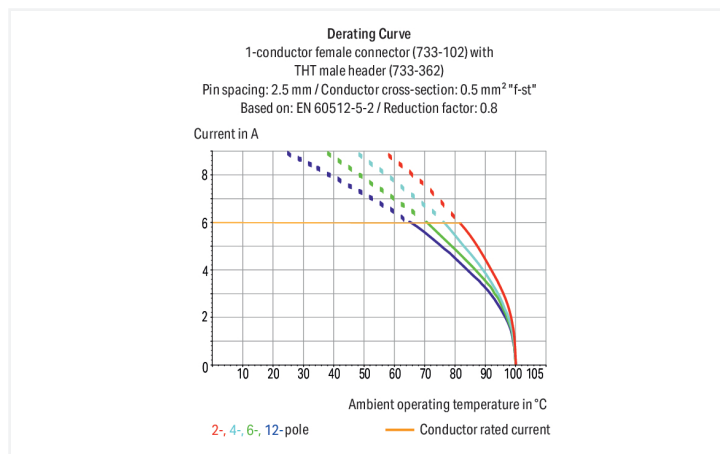
THT male header; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Pin spacing 2.5 mm; 3-pole; light gray

<https://www.wago.com/733-363>



Color: ■ light gray

Similar to illustration



Dimensions in mm

L = (pole no. + 1) x pin spacing

Male connector, 733 Series, with 2.5 mm pin spacing

Error-free electrical installations are guaranteed with this male connector (item number 733-363). The dimensions are (10 x 11.5 x 8.9) 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                 | 80 V           | 160 V  | 320 V  |
| Rated impulse withstand voltage | 2.5 kV         | 2.5 kV | 2.5 kV |
| Rated current                   | 6 A            | 6 A    | 6 A    |

| Approvals per | UL 1059 |   |   |
|---------------|---------|---|---|
| Use group     | B       | C | D |
| Rated voltage | 150 V   | - | - |
| Rated current | 4 A     | - | - |

| Approvals per | CSA   |   |   |
|---------------|-------|---|---|
| Use group     | B     | C | D |
| Rated voltage | 150 V | - | - |
| Rated current | 4 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                          | 2.5 mm / 0.098 inches  |
| Width                                | 10 mm / 0.394 inches   |
| Height                               | 11.5 mm / 0.453 inches |
| Height from the surface              | 7.8 mm / 0.307 inches  |
| Depth                                | 8.9 mm / 0.35 inches   |
| Solder pin length                    | 3.7 mm                 |
| Solder pin dimensions                | 0.8 x 0.8 mm           |
| Drilled hole diameter with tolerance | 1.1 (+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               | Yes                 |
| Mating direction to the PCB        | 0°                  |

### 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                              | light gray   |
| 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                          | 0.01 MJ  |
| Weight                             | 0.5 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   | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$      |
| 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   | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$      |
| 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 |
| Shock pulse form  | Half sine   |

**Environmental Testing**

|   |   |
|---|---|
| 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                  | 4044918974349          |
| 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, No Exemption |
|------------------------|-------------------------|

**Approvals / Certificates**

**General approvals**



| Approval                             | Standard  | Certificate Name |
|--------------------------------------|-----------|------------------|
| CCA<br>DEKRA Certification B.V.      | EN 61984  | 2169534.01       |
| CCA<br>DEKRA Certification B.V.      | IEC 61984 | NL-31141         |
| CSA<br>DEKRA Certification B.V.      | C22.2     | 1465035          |
| UL<br>UL International Germany GmbH  | UL 1977   | E45171           |
| UL<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  |
|---|-----------|-------------------|
| ABS<br>American Bureau of Ship-<br>ping | -         | 24-0095975-PDA    |
| DNV<br>DNV GL SE                        | -         | TAE000016Z        |
| LR<br>Lloyds Register                   | IEC 61984 | 96/20035 (E5)     |
| PRS<br>Polski Rejestr Statków           | -         | TE/1095/880590/23 |

Downloads

Environmental Product Compliance

| Compliance Search  |
|--|
| Environmental Product Compliance 733-363 <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 733-363 <a href="#">↓</a> |

| CAE data                                    |
|---|
| EPLAN Data Portal 733-363 <a href="#">↓</a> |
| ZUKEN Portal 733-363 <a href="#">↓</a>      |

PCB Design

|  |
|--|
| Symbol and Footprint via SamacSys 733-363 <a href="#">↓</a>        |
| Symbol and Footprint via Ultra Librarian 733-363 <a href="#">↓</a> |

## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Female connector/socket



**Item No.: 733-103**

1-conductor female connector; CAGE CLAMP®; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 3-pole; 100% protected against mismatching; 0,50 mm<sup>2</sup>; light gray



**Item No.: 733-103/037-000**

1-conductor female connector; CAGE CLAMP®; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 3-pole; 100% protected against mismatching; Lateral locking levers; 0,50 mm<sup>2</sup>; light gray

## 1.2 Optional Accessories

### 1.2.1 Coding

#### 1.2.1.1 Coding



**Item No.: 733-331**

Coding key; snap-on type; black



**Item No.: 733-330**

Coding key; snap-on type; white

## Installation Notes

### Mismatching protection



Male headers and female connectors are 100% protected against mismatching. Only mating halves with the same pole number can be connected.

## Coding



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