

Data Sheet | Item Number: 733-109/037-000

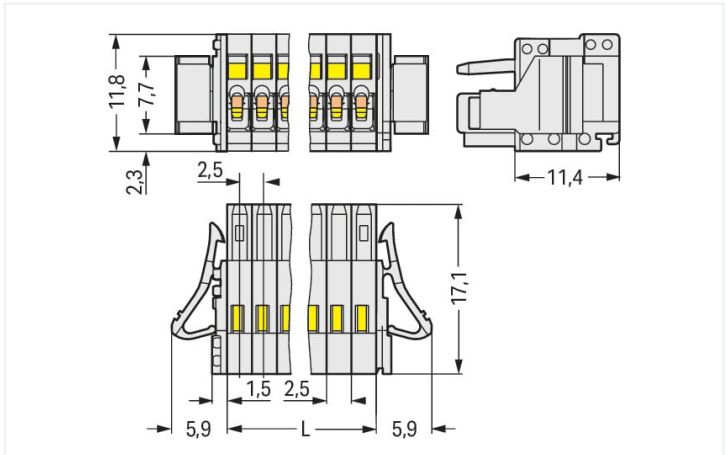
1-conductor female connector; CAGE CLAMP®; 0.5 mm²; Pin spacing 2.5 mm; 9-po-  
le; 100% protected against mismating; Lateral locking levers; 0,50 mm²; light gray

<https://www.wago.com/733-109/037-000>



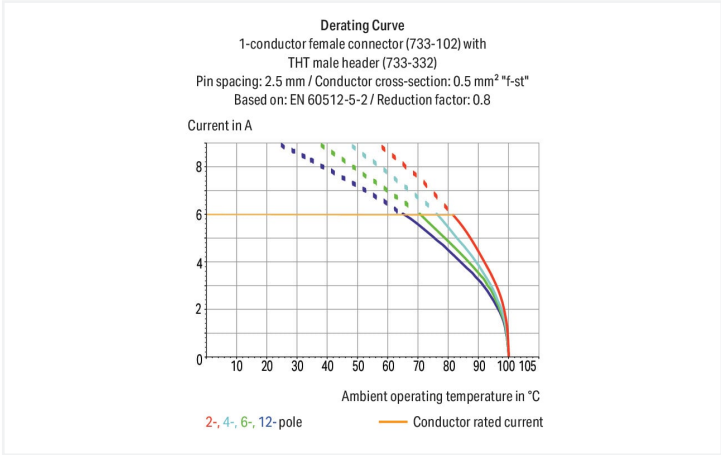
Color: ■ light gray

Similar to illustration



Dimensions in mm

L = pole no. x pin spacing



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates for factory and field assembly
- 100% protected against mismating
- Coding option available

| 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<br>Gold-plated or partially gold-plated contact surfaces<br>Other versions (or variants) can be requested from WAGO Sales or configured at <a href="https://configurator.wago.com/">https://configurator.wago.com/</a> .                                                                                                                                                                             |



Electrical data

| Ratings per IEC/EN 60664-1 |        |        |        | Approvals per UL 1059 |       |   |   |
|----------------------------|--------|--------|--------|-----------------------|-------|---|---|
| Overvoltage category       | III    | III    | II     | Use group             | B     | C | D |
| Pollution degree           | 3      | 2      | 2      | Rated voltage         | 150 V | - | - |
| Nominal voltage            | 100 V  | 160 V  | 320 V  | Rated current         | 4 A   | - | - |
| Rated surge voltage        | 2.5 kV | 2.5 kV | 2.5 kV |                       |       |   |   |
| Rated current              | 6 A    | 6 A    | 6 A    |                       |       |   |   |

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

Connection data

|                            |   |                                                   |                                            |
|----------------------------|---|---------------------------------------------------|--------------------------------------------|
| Connection points          | 9 | Connection 1                                      |                                            |
| Total number of potentials | 9 | Connection technology                             | CAGE CLAMP®                                |
| Number of connection types | 1 | Actuation type                                    | Operating tool                             |
| Number of levels           | 1 | Actuation direction 1                             | Operation parallel to conductor entry      |
|                            |   | Actuation direction 2                             | Operation perpendicular to conductor entry |
|                            |   | Solid conductor                                   | 0.08 ... 0.5 mm² / 28 ... 20 AWG           |
|                            |   | Fine-stranded conductor                           | 0.08 ... 0.5 mm² / 28 ... 20 AWG           |
|                            |   | Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.34 mm²                          |
|                            |   | Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 0.34 mm²                          |
|                            |   | Strip length                                      | 5 ... 6 mm / 0.2 ... 0.24 inches           |
|                            |   | Pole number                                       | 9                                          |
|                            |   | Conductor entry direction to mating direction     | 0°                                         |

Physical data

|             |                        |
|-------------|------------------------|
| Pin spacing | 2.5 mm / 0.098 inches  |
| Width       | 34.3 mm / 1.35 inches  |
| Height      | 11.8 mm / 0.465 inches |
| Depth       | 17.1 mm / 0.673 inches |

Mechanical data

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

Plug-in connection

|                                    |                         |
|------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector (connection type)        | for conductor           |
| Mismating protection               | Yes                     |
| Locking of plug-in connection      | Locking lever           |



| Material data               |                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------|
| Note (material data)        | <a href="https://www.wago.com/us/material-specifications">Information on material specifications can be found here</a> |
| Color                       | light gray                                                                                                             |
| Material group              | I                                                                                                                      |
| Insulation material         | Polyamide (PA66)                                                                                                       |
| Flammability class per UL94 | V0                                                                                                                     |
| Clamping spring material    | Chrome-nickel spring steel (CrNi)                                                                                      |
| Contact material            | Copper alloy                                                                                                           |
| Contact plating             | Tin                                                                                                                    |
| Fire load                   | 0.081 MJ                                                                                                               |
| Weight                      | 4.3 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                  | 4045454215651          |
| Customs tariff number | 85366990990            |

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

Approvals / Certificates

| General approvals                                                                  |          |                  | Declarations of conformity and manufacturer's declarations                          |          |                  |
|------------------------------------------------------------------------------------|----------|------------------|-------------------------------------------------------------------------------------|----------|------------------|
|  |          |                  |  |          |                  |
| Approval                                                                           | Standard | Certificate Name | Approval                                                                            | Standard | Certificate Name |
| UR<br>Underwriters Laboratories Inc.                                               | UL 1059  | E45172           | 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<br>733-109/037-000 |



Documentation

| Additional Information |
|------------------------|
| Technical Section      |
| 03.04.2019             |
| pdf<br>2010.85 KB      |



CAD/CAE-Data

| CAD data                        |
|---------------------------------|
| 2D/3D Models<br>733-109/037-000 |



| CAE data                        |
|---------------------------------|
| ZUKEN Portal<br>733-109/037-000 |



1 Compatible Products

1.1 System counterpart

1.1.1 Male connector/plug



**Item No.: 733-209**  
1-conductor male connector; CAGE CLAMP®; 0.5 mm²; Pin spacing 2.5 mm; 9-pole; 100% protected against mismatching; 0,50 mm²; light gray



**Item No.: 733-369**  
THT male header; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Pin spacing 2.5 mm; 9-pole; light gray



**Item No.: 733-339**  
THT male header; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 2.5 mm; 9-pole; light gray



1.2 Optional Accessories

1.2.1 Ferrule

1.2.1.1 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

1.2.2 Marking

1.2.2.1 Marking strip



**Item No.: 210-331/250-202**  
Marking strips; as a DIN A4 sheet; MARKED; 1-16 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-331/250-207**  
Marking strips; as a DIN A4 sheet; MARKED; 1-48 (100x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-331/250-204**  
Marking strips; as a DIN A4 sheet; MARKED; 17-32 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-331/250-206**  
Marking strips; as a DIN A4 sheet; MARKED; 33-48 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

1.2.3 Strain relief

1.2.3.1 Strain relief plate



**Item No.: 734-128**  
Strain relief plate; for female and male connectors; 12.5 mm wide; 1 part; Pin spacing 3.5 mm; light gray

1.2.4 Test and measurement

1.2.4.1 Testing accessories



**Item No.: 735-500**  
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm<sup>2</sup>

1.2.5 Tool

1.2.5.1 Operating tool



**Item No.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



**Item No.: 210-251**  
Operating tool; for MCS MICRO and MINI with CAGE CLAMP® connection; yellow



**Item No.: 233-335**  
Operating tool; green



**Item No.: 233-331**  
Operating tool; insulated; yellow



**Item No.: 733-130**  
Operating tool; made of insulating material; 1-way; loose; white



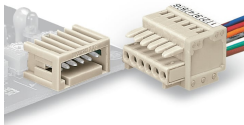
**Item No.: 733-191**  
Operating tool; made of insulating material; 1-way; loose; yellow



**Item No.: 233-332**  
Operating tool; made of insulating material; white

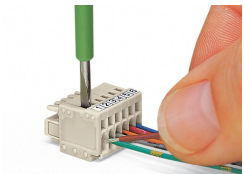
Installation Notes

Mismatching protection

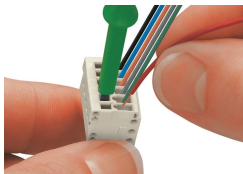


Male headers and female connectors are 100% protected against mismatching. Only mating halves with the same pole number can be connected.

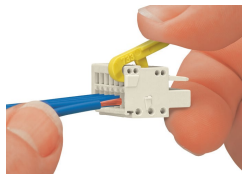
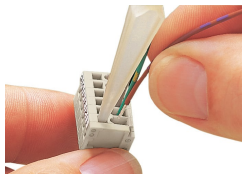
Conductor termination



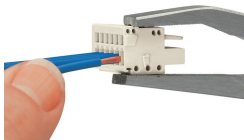
Inserting conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



Conductor termination via screwdriver (233-335) – parallel to CAGE CLAMP® actuation

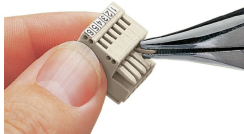


Conductor termination via operating tool (733-191)



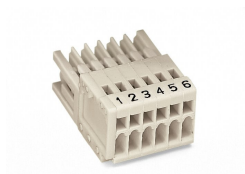
Conductor termination via operating tool (210-251)

Coding

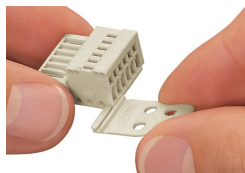


Coding a female connector – removing coding finger(s).

## Marking

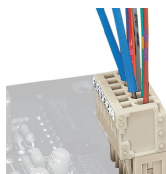


## Strain relief



Strain relief plates for factory or in-the-field assembly

## Testing

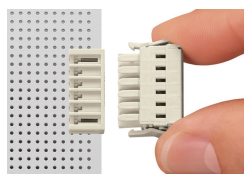


Testing via 1 mm Ø test pin (735-500), touch contact.

## Locking system



Locking levers prevent accidental disconnection.



Locking levers prevent accidental disconnection.