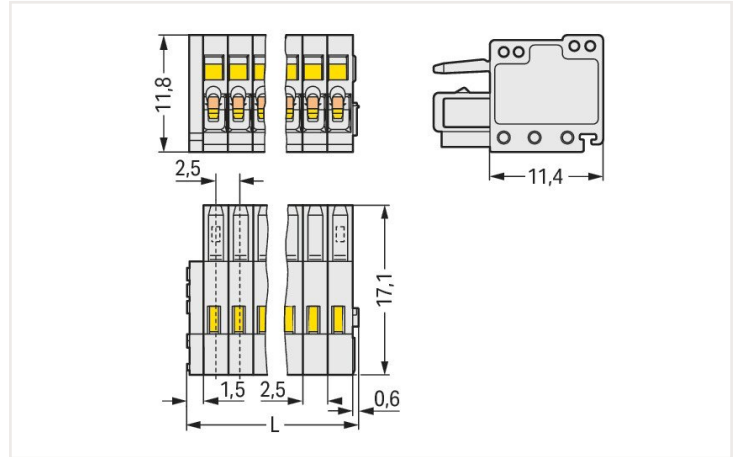


# Data sheet | Item number: 733-103

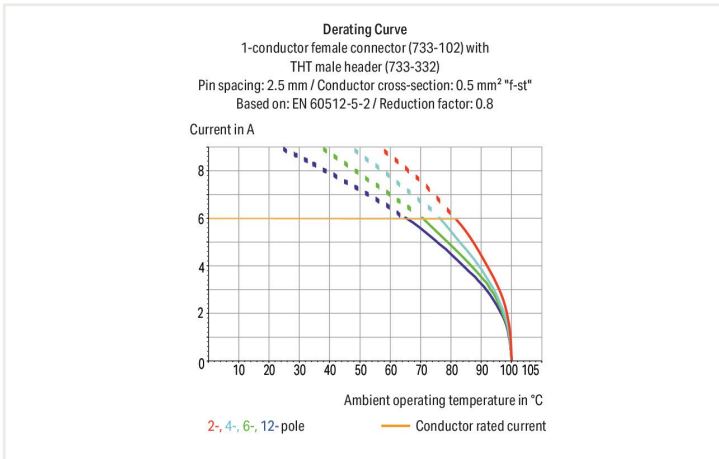
1-conductor female connector; CAGE CLAMP®; 0.5 mm²; Pin spacing 2.5 mm; 3-pole; 100% protected against mismatching; 0,50 mm²; light gray

<https://www.wago.com/733-103>



Dimensions in mm

$L = (\text{pole no.} \times \text{pin spacing}) + 2.1 \text{ mm}$



- 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 1

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  
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)	100 V
Rated impulse voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated impulse voltage (III/2)	2.5 kV
Nominal voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
Rated current	6 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

### Ratings per UL

Approvals per	UL 1059
Rated voltage UL (Use Group B)	150 V
Rated current UL (Use Group B)	4 A

### Ratings per CSA

Approvals per	CSA
Rated voltage CSA (Use Group B)	150 V
Rated current CSA (Use Group B)	4 A

## Connection data

Connection points	3
Total number of potentials	3
Number of connection types	1
Number of levels	1

### Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG
Fine-stranded conductor	0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 0.34 mm <sup>2</sup>
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 0.34 mm <sup>2</sup>
Strip length	5 ... 6 mm / 0.2 ... 0.24 inches
Pole number	3
Conductor entry direction to mating direction	0°

### Physical data

Pin spacing	2.5 mm / 0.098 inches
Width	9.6 mm / 0.378 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

### Material data

Note (material data)	<a href="#">Information on material data 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	0.027 MJ
Weight	1.4 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)	200 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4044918293976
Customs tariff number VKOrg Germany	85366990990

Approvals and certificates

General approvals



Approval	Standard	Certificate name
CCA DEKRA Certification B.V.	EN 61984	2169534.01
CCA DEKRA Certification B.V.	IEC 61984	NL-31141
CSA DEKRA Certification B.V.	C22.2	1465035
UL UL International Germany GmbH	UL 1977	E45171
UR Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate name
Railway WAGO GmbH & Co. KG	-	Railway Ready

Approvals for marine applications



Approval	Standard	Certificate name
ABS American Bureau of Shipping	-	19-HG1869876-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z
LR Lloyds Register	IEC 61984	96/20035 (E5)

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 733-103	↓
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Documentation

Additional Information

Technical Section	03.04.2019	pdf 1949.09 KB	↓
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CAD/CAE-Data

<b>CAD data</b>	<b>CAE data</b>
2D/3D Models 733-103	EPLAN Data Portal 733-103
	ZUKEN Portal 733-103

1 Compatible products

1.1 System counterpart

1.1.1 Male connector/plug

<p><b>Item no.: 733-203</b> 1-conductor male 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</p>	<p><b>Item no.: 733-203/032-000</b> 1-conductor male connector; CAGE CLAMP®; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 3-pole; 100% protected against mismatching; Strain relief plate; 0,50 mm<sup>2</sup>; light gray</p>	<p><b>Item no.: 733-363/105-604/997-406</b> THR male header; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 2.5 mm; 3-pole; black</p>	<p><b>Item no.: 733-363/105-604</b> THR male header; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Pin spacing 2.5 mm; 3-pole; black</p>
<p><b>Item no.: 733-333/105-604/997-446</b> THR male header; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 2.5 mm; 3-pole; black</p>	<p><b>Item no.: 733-333/105-604</b> THR male header; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 2.5 mm; 3-pole; black</p>	<p><b>Item no.: 733-363</b> 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</p>	<p><b>Item no.: 733-333</b> THT male header; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 2.5 mm; 3-pole; light gray</p>

1.2 Optional accessories

1.2.1 Ferrule

1.2.1.1 Ferrule

<p><b>Item no.: 216-301</b> Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow</p>	<p><b>Item no.: 216-321</b> Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow</p>	<p><b>Item no.: 216-151</b> Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated</p>	<p><b>Item no.: 216-131</b> Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored</p>
<p><b>Item no.: 216-302</b> Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise</p>	<p><b>Item no.: 216-322</b> Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise</p>	<p><b>Item no.: 216-132</b> Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated</p>	<p><b>Item no.: 216-152</b> Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated</p>

1.2.2 Marking

1.2.2.1 Marking strip

<p><b>Item no.: 210-331/250-202</b> 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</p>	<p><b>Item no.: 210-331/250-207</b> 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</p>	<p><b>Item no.: 210-331/250-204</b> 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</p>	<p><b>Item no.: 210-331/250-206</b> 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</p>
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### 1.2.3 Strain relief

#### 1.2.3.1 Strain relief plate



**Item no.: 734-127**  
Strain relief plate; 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



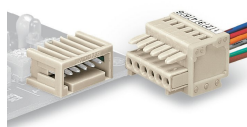
**Item no.: 733-191**  
Operating tool; made of insulating material; 1-way; loose; yellow



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

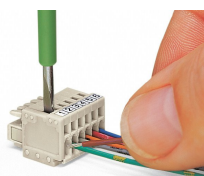
### Installation notes

#### Mismating protection

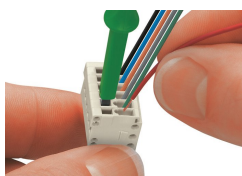


Male headers and female connectors are 100% protected against mismating. Only mating halves with the same pole number can be connected.

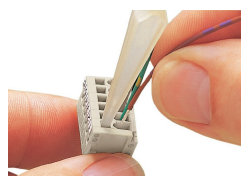
### Conductor termination



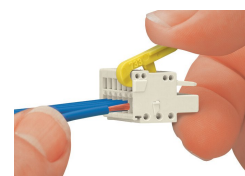
Inserting conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



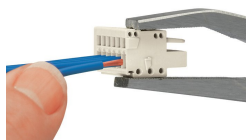
Conductor termination via screwdriver (233-335) – parallel to CAGE CLAMP® actuation



Conductor termination via operating tool (733-191)

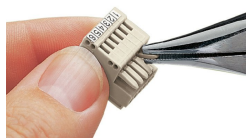


## Conductor termination



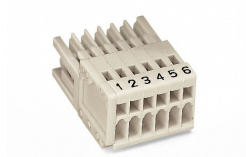
Conductor termination via operating tool (210-251)

## Coding

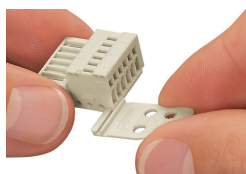


Coding a female connector – removing coding finger(s).

## Marking

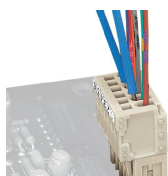


## Installation



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

## Testing



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