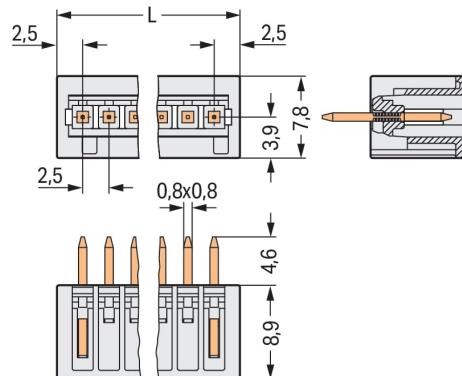
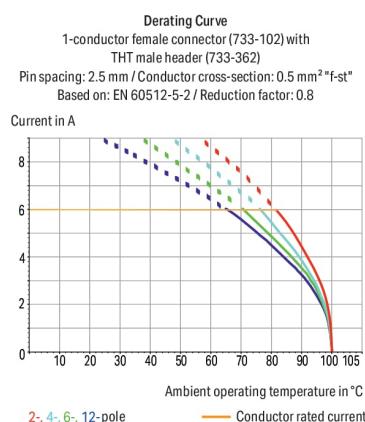


Color: light gray

Similar to illustration

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

- 100% protected against mismatching; only mating halves with the same pole number can be connected
- 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:

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/>.  
Other pole numbers  
3.8 mm pin projection for male headers with straight solder pins

## Electrical data

IEC/EN 60664-1		
Overvoltage category	III	III
Pollution degree	3	2
Nominal voltage	80 V	160 V
Rated surge voltage	2.5 kV	2.5 kV
Rated current	6 A	6 A

UL 1059		
Use group	B	C
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	12
Number of connection types	1
Number of levels	1

### Connection 1

Pole number	12
-------------	----

## Physical data

Pin spacing	2.5 mm / 0.098 inches
Width	32.5 mm / 1.28 inches
Height	13.5 mm / 0.531 inches
Height from the surface	8.9 mm / 0.35 inches
Depth	7.8 mm / 0.307 inches
Solder pin length	4.6 mm
Solder pin dimensions	0.8 x 0.8 mm
Drilled hole diameter with tolerance	1.1 ( <sup>+0.1</sup> ) 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	90 °

## 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	VO
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact Plating	Tin
Fire load	0.027 MJ
Weight	1.6 g

**Environmental requirements**

Limit temperature range	-60 ... +100 °C	<b>Environmental Testing (Environmental Conditions)</b>	
Processing temperature	-35 ... +60 °C	Test specification Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
		Test procedure Railway applications – Rolling stock equipment – Shock and vibration tests	DIN EN 61373 (VDE 0115-0106):2011-04
		Spectrum/Installation location	Service life test, Category 1, Class A/B
		Function test with noise-like vibration	Test passed according to Section 8 of the standard
		Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$ $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
		Acceleration	0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes)
		Test duration per axis	10 min. 5 h
		Test directions	X, Y and Z axes X, Y and Z axes X, Y and Z axes
		Monitoring for contact faults/interruptions	Passed
		Voltage drop measurement before and after each axis	Passed
		Simulated service life test through increased levels of noise-like vibration	Test passed according to Section 9 of the standard
		Extended test scope: Monitoring for contact faults/interruptions	Passed Passed
		Extended test scope: Voltage drop measurement before and after each axis	Passed Passed
		Shock test	Test passed according to Section 10 of the standard
		Shock form	Half sine
		Shock duration	30 ms
		Number of shocks per axis	3 pos. und 3 neg.
		Vibration and shock stress for rolling stock equipment	Passed

**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 9.0	EC002637
ETIM 8.0	EC002637
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	CN
GTIN	4050821035688
Customs tariff number	85366930000

## Environmental Product Compliance

RoHS Compliance Status

Compliant, No Exemption

## Approvals / 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
UL 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 DNV GL SE	-	TAE000016Z
LR Lloyds Register	IEC 61984	96/20035 (E5)

## Downloads

## Environmental Product Compliance

Compliance Search

Environmental Product Compliance 733-342



## Documentation

## Additional Information

Technical Section

03.04.2019

pdf  
2027.26 KB

**CAD/CAE-Data****CAD data**

2D/3D Models 733-342

**CAE data**EPLAN Data Portal  
733-342

ZUKEN Portal 733-342

**PCB Design**Symbol and Footprint  
via SamacSys 733-342Symbol and Footprint  
via Ultra Librarian  
733-342**1 Compatible Products****1.1 System counterpart****1.1.1 Female connector/socket**[Item No.: 733-112](#)1-conductor female connector; CAGE CLAMP®; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 12-pole; 100% protected against mis-mating; 0,50 mm<sup>2</sup>; light gray[Item No.: 733-112/037-000](#)1-conductor female connector; CAGE CLAMP®; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 12-pole; 100% protected against mis-mating; 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****Mis-mating protection**

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

## Coding



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