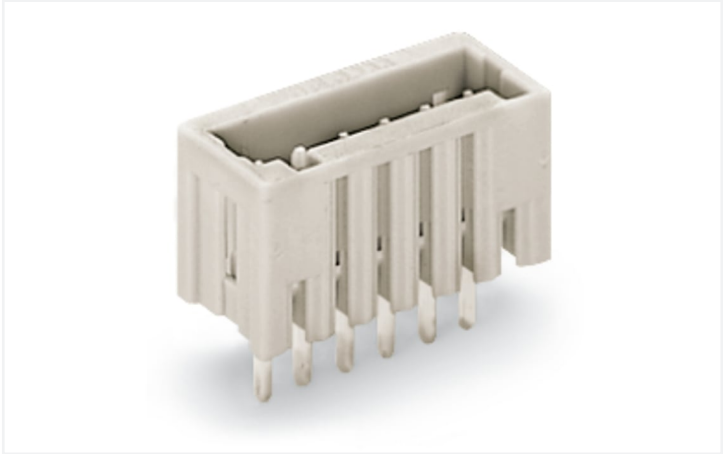


Data Sheet | Item Number: 733-338

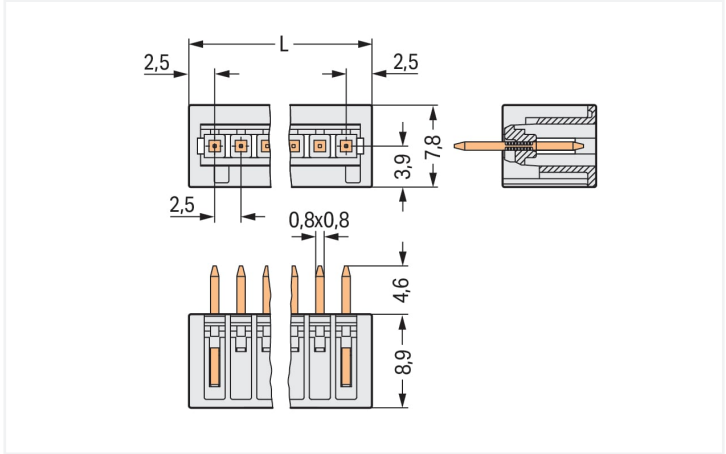
THT male header; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 2.5 mm; 8-pole; light gray

<https://www.wago.com/733-338>

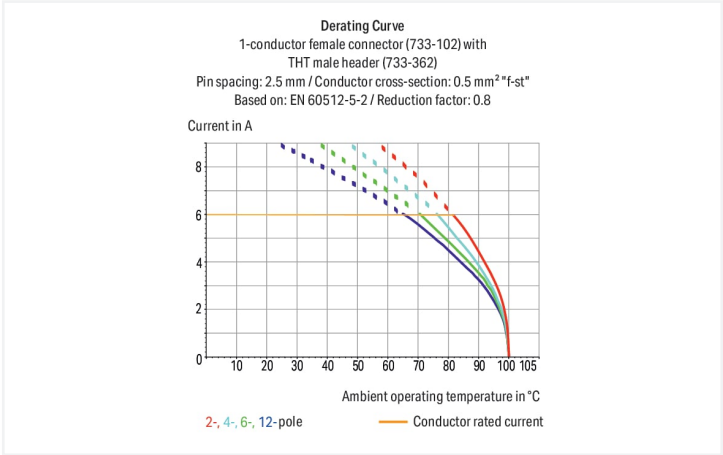


Color: ■ light gray

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

Variants:

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.

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									
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		80 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			
Total number of potentials	8	Connection 1	
Number of connection types	1	Pole number	8
Number of levels	1		

Physical data		
Pin spacing	2.5 mm / 0.098 inches	
Width	22.5 mm / 0.886 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 ^(+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	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)	Information on material specifications can be found here	
Color	light gray	
Material group	I	
Insulation material (main housing)	Polyamide (PA66)	
Flammability class per UL94	V0	
Contact material	Electrolytic copper (E _{Cu})	
Contact Plating	Tin	
Fire load	0.02 MJ	
Weight	1.1 g	



Environmental requirements																																								
Limit temperature range	-60 ... +100 °C	<table><tr><th colspan="2">Environmental Testing (Environmental Conditions)</th></tr><tr><td>Test specification Railway applications – Rolling stock – Electronic equipment</td><td>DIN EN 50155 (VDE 0115-200):2022-06</td></tr><tr><td>Test procedure Railway applications – Rolling stock equipment – Shock and vibration tests</td><td>DIN EN 61373 (VDE 0115-0106):2011-04</td></tr><tr><td>Spectrum/Installation location</td><td>Service life test, Category 1, Class A/B</td></tr><tr><td>Function test with noise-like vibration</td><td>Test passed according to Section 8 of the standard</td></tr><tr><td>Frequency</td><td>f₁ = 5 Hz to f₂ = 150 Hz f₁ = 5 Hz to f₂ = 150 Hz</td></tr><tr><td>Acceleration</td><td>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)</td></tr><tr><td>Test duration per axis</td><td>10 min. 5 h</td></tr><tr><td>Test directions</td><td>X, Y and Z axes X, Y and Z axes X, Y and Z axes</td></tr><tr><td>Monitoring for contact faults/interruptions</td><td>Passed</td></tr><tr><td>Voltage drop measurement before and after each axis</td><td>Passed</td></tr><tr><td>Simulated service life test through increased levels of noise-like vibration</td><td>Test passed according to Section 9 of the standard</td></tr><tr><td>Extended test scope: Monitoring for contact faults/interruptions</td><td>Passed Passed</td></tr><tr><td>Extended test scope: Voltage drop measurement before and after each axis</td><td>Passed Passed</td></tr><tr><td>Shock test</td><td>Test passed according to Section 10 of the standard</td></tr><tr><td>Shock form</td><td>Half sine</td></tr><tr><td>Shock duration</td><td>30 ms</td></tr><tr><td>Number of shocks per axis</td><td>3 pos. und 3 neg.</td></tr><tr><td>Vibration and shock stress for rolling stock equipment</td><td>Passed</td></tr></table>	Environmental Testing (Environmental Conditions)		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 Hz to f ₂ = 150 Hz f ₁ = 5 Hz to f ₂ = 150 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
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Number of shocks per axis	3 pos. und 3 neg.																																							
Vibration and shock stress for rolling stock equipment	Passed																																							
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 9.0	EC002637
ETIM 8.0	EC002637
PU (SPU)	200 pcs
Packaging type	Box
Country of origin	CN
GTIN	4050821035664
Customs tariff number	85366930000



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
CCA DEKRA Certification B.V.	EN 61984	2169534.01	Railway WAGO GmbH & Co. KG	-	Railway Ready
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			

Approvals for marine applications

  		
Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	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 733-338	

Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 733-338	EPLAN Data Portal 733-338
↓	↓
	ZUKEN Portal 733-338
	↓

PCB Design	
Symbol and Footprint via SamacSys 733-338	↓
Symbol and Footprint via Ultra Librarian 733-338	↓

1 Compatible Products
1.1 System counterpart
1.1.1 Female connector/socket



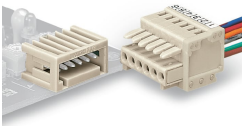
Item No.: 733-108 1-conductor female connector; CAGE CLAMP®; 0.5 mm²; Pin spacing 2.5 mm; 8-pole; 100% protected against mismatching; 0,50 mm²; light gray	Item No.: 733-108/037-000 1-conductor female connector; CAGE CLAMP®; 0.5 mm²; Pin spacing 2.5 mm; 8-pole; 100% protected against mismatching; Lateral locking levers; 0,50 mm²; light gray
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1.2 Optional Accessories
1.2.1 Coding
1.2.1.1 Coding



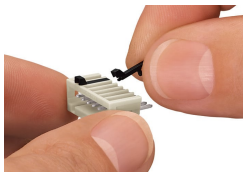
Item No.: 733-331 Coding key; snap-on type; black	Item No.: 733-330 Coding key; snap-on type; white
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Installation Notes
Mismatching protection



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).