

Data Sheet | Item Number: 733-105/037-000

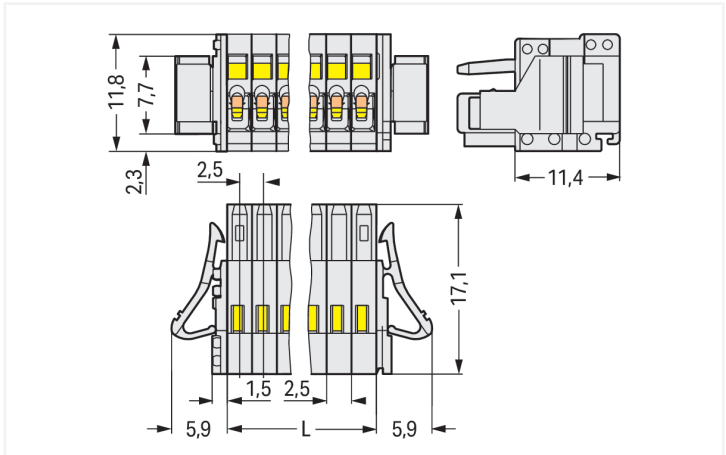
1-conductor female connector; CAGE CLAMP®; 0.5 mm²; Pin spacing 2.5 mm; 5-po-
le; 100% protected against mismating; Lateral locking levers; 0,50 mm²; light gray

<https://www.wago.com/733-105/037-000>



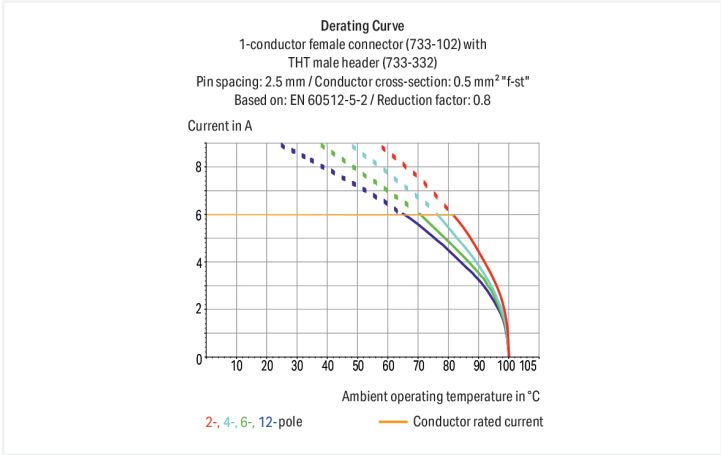
Color: ■ light gray

Similar to illustration



Dimensions in mm

L = pole no. x pin spacing



Federleiste/Buchse Serie 733 mit CAGE CLAMP®

Die Federleiste/Buchse (Artikelnummer 733-105/037-000) ermöglicht eine fehlerfreie Elektroinstallation. Mit unseren Leiterplatten-Steckverbindern bekommen Sie ein ganzheitliches Steckverbindersystem, das vielseitig verwendet werden kann: als Leiterplatten-Steckverbinder, als Durchführungssteckverbinder, als fliegende Steckverbindung für verschiedene Montagearten oder als Steckverbinder auf Reihenklemmen. Für den Leiteranschluss werden bei dieser Federleiste/Buchse Absolierlängen von 5 bis 6 mm benötigt. Dieses Produkt ist mit der CAGE CLAMP®-Technologie ausgestattet. Der erprobte und wartungsfreie CAGE CLAMP® Universalanschluss ermöglicht den Anschluss aller Leiterarten mit einer Käfigzugfeder. Eine Vorbehandlung der Leiter, z.B. durch das Aufcrimpen von Aderendhülsen, ist nicht erforderlich. In Breite x Höhe x Tiefe betragen die Abmessungen (24,3 x 11,8 x 17,1) mm. In Abhängigkeit von der Leiterart ist die Federleiste/Buchse für Leiterquerschnitte von 0,08 mm² bis 0,5 mm² ausgelegt. Die Oberfläche der Kontakte besteht aus Zinn. Über ein Betätigungswerkzeug wird diese Federleiste/Buchse betätigt. Das MCS – "Multi Connection System" von WAGO ist ein vielfältiges Steckverbindersystem für Ihre durchgängige Systemverdrahtung. Es ermöglicht Ihnen eine vereinfachte Verdrahtung in der Kabelvorkonfektionierung und auf Geräten durch zwei Betätigungsrichtungen für die CAGE CLAMP®-Varianten.

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.

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 60664-1			
Overvoltage category			III	III	II	
Pollution degree			3	2	2	
Nominal voltage			100 V	160 V	320 V	
Rated surge 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						
Clamping units			5			
Total number of potentials			5			
Number of connection types			1			
Number of levels			1			

Connection 1	
Connection technology	CAGE CLAMP®
Actuation type	Operating tool
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	5
Conductor entry direction to mating direction	0°

Physical data		
Pin spacing	2.5 mm / 0.098 inches	
Width	24.3 mm / 0.957 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)	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
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Copper alloy
Contact Plating	Tin
Fire load	0.054 MJ
Weight	2.7 g

Environmental requirements																																																								
Limit temperature range	-60 ... +100 °C	<table><tr><th colspan="2">Environmental Testing</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 – Vibration and shock tests</td><td>DIN EN 61373 (VDE 0115-0106):2011-04</td></tr><tr><td>Spectrum/Mounting location</td><td>Service life test, Category 1, Class A/B</td></tr><tr><td>Functional test with noise-like oscillations</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</td></tr><tr><td>Acceleration</td><td>0.101g (highest test level used for all axes)</td></tr><tr><td>Test duration per axis</td><td>10 min.</td></tr><tr><td>Test directions</td><td>X, Y and Z axes</td></tr><tr><td>Monitoring of contact faults and 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 oscillations</td><td>Test passed according to Section 9 of the standard</td></tr><tr><td>Frequency</td><td>f₁ = 5 Hz to f₂ = 150 Hz</td></tr><tr><td>Acceleration</td><td>0.572g (highest test level used for all axes)</td></tr><tr><td>Test duration per axis</td><td>5 h</td></tr><tr><td>Test directions</td><td>X, Y and Z axes</td></tr><tr><td>Extended testing: Monitoring of contact faults and interruptions</td><td>Passed</td></tr><tr><td>Extended testing: Voltage drop measurement before and after each axis</td><td>Passed</td></tr><tr><td>Shock test</td><td>Test passed according to Section 10 of the standard</td></tr><tr><td>Shock pulse form</td><td>Half sine</td></tr><tr><td>Acceleration</td><td>5g (highest test level used for all axes)</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>Test directions</td><td>X, Y and Z axes</td></tr><tr><td>Extended testing: Monitoring of contact faults and interruptions</td><td>Passed</td></tr><tr><td>Extended testing: Voltage drop measurement before and after each axis</td><td>Passed</td></tr><tr><td>Vibration and shock stress for rolling stock equipment</td><td>Passed</td></tr></table>	Environmental Testing		Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06	Test procedure: Railway applications – Rolling stock equipment – 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 Hz to f ₂ = 150 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 Hz to f ₂ = 150 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	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
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Processing temperature	-35 ... +60 °C																																																							



Commercial data	
Product Group	3 (Multi Conn. System)
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454215613
Customs tariff number	85366990990

Product Classification	
UNSPSC	39121409
eCl@ss 10.0	27-44-03-09
eCl@ss 9.0	27-44-03-09
ETIM 9.0	EC002638
ETIM 8.0	EC002638
ECCN	NO US CLASSIFICATION

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
UL Underwriters Laboratories Inc.	UL 1059	E45172	Railway WAGO GmbH & Co. KG	-	Railway Ready

Approvals for marine applications

		
Approval	Standard	Certificate Name
BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV

Downloads

Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 733-105/037-000	



Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 733-105/037-000	EPLAN Data Portal 733-105/037-000
	ZUKEN Portal 733-105/037-000

1 Compatible Products

1.1 System counterpart

1.1.1 Male connector/plug



Item No.: 733-205
1-conductor male connector; CAGE CLAMP®; 0.5 mm²; Pin spacing 2.5 mm; 5-pole; 100% protected against mismatching; 0,50 mm²; light gray



Item No.: 733-365
THT male header; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Pin spacing 2.5 mm; 5-pole; light gray



Item No.: 733-335
THT male header; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 2.5 mm; 5-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 mm² / AWG 24; insulated; electro-tin plated; yellow



Item No.: 216-321
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



Item No.: 216-151
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated



Item No.: 216-131
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored



Item No.: 216-302
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



Item No.: 216-322
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



Item No.: 216-132
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated



Item No.: 216-152
Ferrule; Sleeve for 0.34 mm² / 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 0,5mm²

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

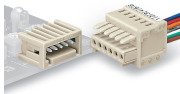


Item No.: 233-332
Operating tool; made of insulating material; white



Installation Notes

Mismating protection

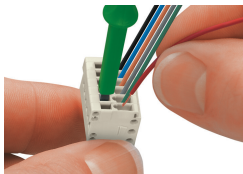


Male headers and female connectors are 100% protected against mismating. Only mating halves with the same pole number can be connected.

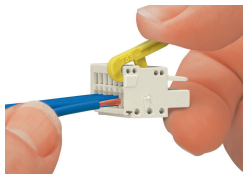
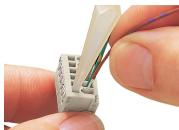
Conductor termination



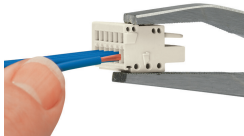
Inserting conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



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



Conductor termination via operating tool (733-191)



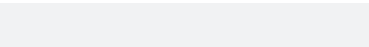
Conductor termination via operating tool (210-251)

Coding

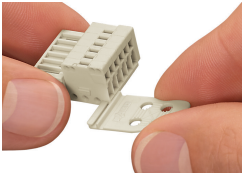


Coding a female connector – removing coding finger(s).

Marking



Strain relief



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

Testing

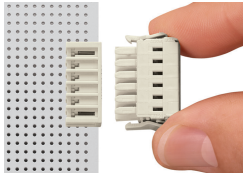


Testing via 1 mm Ø test pin (735-500), touch contact.

Locking system



Locking levers prevent accidental disconnection.



Locking levers prevent accidental disconnection.