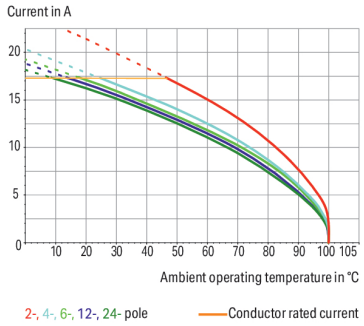
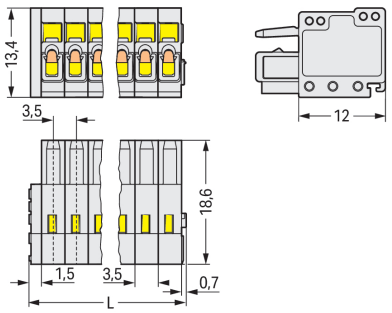
Data Sheet | Item Number: 734-103

1-conductor female connector; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 3-pole; 100% protected against mismating; light gray

https://www.wago.com/734-103



Color: light gray



Dimensions in mm
L = (pole no. x pin spacing) + 2.2 mm

Female connector, 734 Series, operating tool

Enjoy convenient electrical installations with this female connector (item number 734-103). Ensure that the strip lengths are between 6 and 7 mm when connecting conductors to this female connector. This product incorporates one conductor terminal and utilizes CAGE CLAMP®. Our celebrated universal connection known as CAGE CLAMP® is the industry standard for connection technology and electrical interconnections. Dimensions: (12.7 x 13.4 x 18.6) mm (width x height x depth). This female connector is suitable for conductor cross sections ranging from 0.08 mm² to 1.5 mm².

The contact surface is coated with tin.

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 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	160 V	160 V	320 V
Rated impulse withstand voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Approvals per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data

Clamping units	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
Actuation direction 1	Operation parallel to conductor entry
Actuation direction 2	Operation perpendicular to conductor entry
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.
Strip length	6 … 7 mm / 0.24 … 0.28 inches
Pole number	3
Conductor entry direction to mating direction	0 °

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	12.7 mm / 0.5 inches
Height	13.4 mm / 0.528 inches
Depth	18.6 mm / 0.732 inches

 Continued on next page

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)	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	0.038 MJ
Weight	2.4 g

Environmental requirements

Limit temperature range	-60 … +100 °C
Processing temperature	-35 … +60 °C

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

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Environmental Testing

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

Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	200 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918492416
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 10.0	EC002638
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 61984	2169534.02
CCA DEKRA Certification B.V.	EN 61984	nl-54190
CSA DEKRA Certification B.V.	C22.2	1465035
UL Underwriters Laboratories Inc.	UL 1977	E 45171

Declarations of conformity and manufacturer's declarations

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

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Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	24-0095975-PDA
DNV DNV GL SE	-	TAE000016Z
LR Lloyds Register	IEC 61984	96/20035 (E5)
PRS Polski Rejestr Statków	-	TE/1095/880590/23

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 734-103

Documentation

Additional Information

Technical Section	03.04.2019	pdf 2027.26 KB

CAD/CAE-Data

CAD data

2D/3D Models 734-103

CAE data

EPLAN Data Portal 734-103

ZUKEN Portal 734-103

1 Compatible Products

1.1 System counterpart

1.1.1 Distribution connector

Item No.: 734-363
2-conductor combi strip; 100% protected against mismating; 1.5 mm²; 3-pole; Pin spacing 3.5 mm; light gray

Item No.: 734-363/037-000
2-conductor combi strip; 100% protected against mismating; 1.5 mm²; Locking lever; 3-pole; Pin spacing 3.5 mm; light gray

Item No.: 734-363/008-000
2-conductor combi strip; 100% protected against mismating; Snap-in mounting feet; 1.5 mm²; 3-pole; Pin spacing 3.5 mm; light gray

Continued on next page

1.1.2 Male connector/plug

Item No.: 734-303/019-000
1-conductor male connector; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 3-pole; 100% protected against mismating; clamping collar; light gray

Item No.: 734-303/018-000
1-conductor male connector; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 3-pole; 100% protected against mismating; DIN-35 rail/panel mounting; Snap-in mounting feet; light gray

Item No.: 734-303
1-conductor male connector; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 3-pole; 100% protected against mismating; light gray

Item No.: 734-163/105-604/997-405
THR male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismating; in tape-and-reel packaging; Pin spacing 3.5 mm; 3-pole; black

Item No.: 734-163/105-604
THR male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismating; Pin spacing 3.5 mm; 3-pole; black

Item No.: 734-133/105-604/997-405
THR male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismating; in tape-and-reel packaging; Pin spacing 3.5 mm; 3-pole; black

Item No.: 734-133/105-604
THR male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismating; Pin spacing 3.5 mm; 3-pole; black

Item No.: 734-403
THT double-deck male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismating; Pin spacing 3.5 mm; 6-pole; light gray

Item No.: 734-403/001-000
THT double-deck male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismating; Pin spacing 3.5 mm; 6-pole; light gray

Item No.: 734-163
THT male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismating; Pin spacing 3.5 mm; 3-pole; light gray

Item No.: 734-133/010-000
THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismating; Gold-plated contacts; Pin spacing 3.5 mm; 3-pole; light gray

Item No.: 734-133
THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismating; Pin spacing 3.5 mm; 3-pole; light gray

Item No.: 734-133/046-000
THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismating; Pin spacing 3.5 mm; 3-pole; light gray

1.2 Optional Accessories

1.2.1 Ferrule

1.2.1.1 Ferrule

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

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

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 / 22 AWG; uninsulated; electro-tin plated

Item No.: 216-221
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

Item No.: 216-121
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

Item No.: 216-222
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

Item No.: 216-122
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; silver-colored

Item No.: 216-223
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-123
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored

Item No.: 216-224
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

Item No.: 216-124
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

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1.2.2 Insulation stop

1.2.2.1 Insulation stop

Item No.: 734-671
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 8 pieces/strip; light gray

1.2.3 Marking

1.2.3.1 Marking strip

Item No.: 210-332/350-202
Marking strips; as a DIN A4 sheet; MARKED; 1-16 (240x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-332/350-204
Marking strips; as a DIN A4 sheet; MARKED; 17-32 (240x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-332/350-206
Marking strips; as a DIN A4 sheet; MARKED; 33-48 (240x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

1.2.4 Strain relief

1.2.4.1 Strain relief housing

Item No.: 734-603
Strain relief housing; for female and male connectors; 2 parts; Pin spacing 3.5 mm; 3-pole; light gray

1.2.4.2 Strain relief plate

Item No.: 734-127
Strain relief plate; for female and male connectors; 6 mm wide; 1 part; Pin spacing 3.5 mm; light gray

1.2.5 Test and measurement

1.2.5.1 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

 Continued on next page

1.2.6 Tool

1.2.6.1 Operating tool

Item No.: 734-190
Combination operating tool; natural

Item No.: 734-231
Operating tool; black

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

Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

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

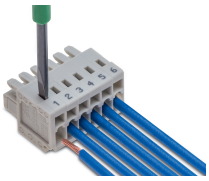
Item No.: 210-250
Operating tool; for MCS MINI and MIDI with CAGE CLAMP® connection; red

Item No.: 734-191
Operating tool; made of insulating material; 1-way; loose; black

Item No.: 734-230
Operating tool; made of insulating material; 1-way; white

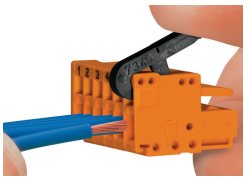
Installation Notes

Conductor termination

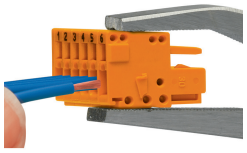


Inserting a conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.

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

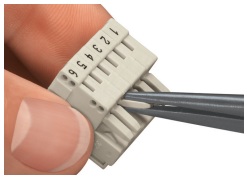


Inserting a conductor into CAGE CLAMP® unit via operating tool (734-191).



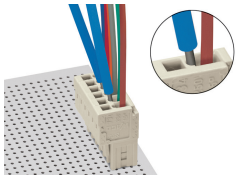
Inserting a conductor into CAGE CLAMP® unit via operating tool (210-251 or 210-250).

Coding



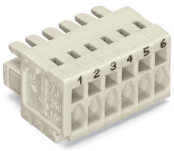
Coding a female connector – removing coding finger(s).

Testing



Testing via 1 mm Ø test pin (735-500) – CAGE CLAMP® connection – touch contact.

Marking



Labeling via direct marking or self-adhesive strips.

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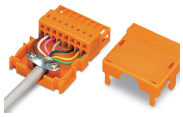
Installation



Strain relief housing for 734 Series Male and Female Connectors with CAGE CLAMP® connection