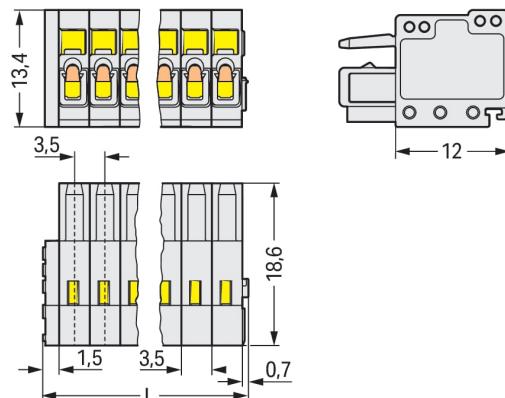




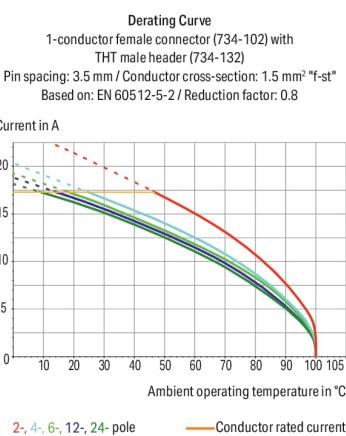
Color: light gray

Similar to illustration



Dimensions in mm

L = (pole no. x pin spacing) + 2.2 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 and housings for field assembly
- 100% protected against mismatching
- 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:

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 surge 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	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 ... 1.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 1.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1.5 mm ²
Note (conductor cross-section)	Terminating 1.5 mm ² 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	5
Conductor entry direction to mating direction	0 °

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	19.7 mm / 0.776 inches
Height	13.4 mm / 0.528 inches
Depth	18.6 mm / 0.732 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)	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	0.063 MJ
Weight	3.9 g

Environmental requirements

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

Environmental Testing (Environmental Conditions)

Test specification	DIN EN 50155 (VDE 0115-200):2022-06
Railway applications – Rolling stock – Electronic equipment	
Test procedure	DIN EN 61373 (VDE 0115-0106):2011-04
Railway applications – Rolling stock equipment – Shock and vibration tests	
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	27-44-03-09
eCl@ss 9.0	27-44-03-09
ETIM 9.0	EC002638
ETIM 8.0	EC002638
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918492874
Customs tariff number	85366990990

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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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
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 DNV GL SE	-	TAE000016Z
LR Lloyds Register	IEC 61984	96/20035 (E5)

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 734-105



Documentation

Additional Information

Technical Section

03.04.2019

pdf

2027.26 KB



CAD/CAE-Data

CAD data

2D/3D Models 734-105



CAE data

EPLAN Data Portal
734-105



ZUKEN Portal 734-105



1 Compatible Products

1.1 System counterpart

1.1.1 Distribution connector



[Item No.: 734-365](#)

2-conductor combi strip; 100% protected
against mismatching; 1.5 mm²; 5-pole; Pin
spacing 3.5 mm; light gray



[Item No.: 734-365/037-000](#)

2-conductor combi strip; 100% protected
against mismatching; 1.5 mm²; Locking
lever; 5-pole; Pin spacing 3.5 mm; light
gray



[Item No.: 734-365/008-000](#)

2-conductor combi strip; 100% protected
against mismatching; Snap-in mounting
feet; 1.5 mm²; 5-pole; Pin spacing 3.5 mm;
light gray

1.1.2 Male connector/plug



[Item No.: 734-305](#)

1-conductor male connector; CAGE
CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 5-
pole; 100% protected against mismatching;
1.50 mm²; light gray



[Item No.: 734-305/019-000](#)

1-conductor male connector; CAGE
CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 5-
pole; 100% protected against mismatching;
clamping collar; 1,50 mm²; light gray



[Item No.: 734-305/018-000](#)

1-conductor male connector; CAGE
CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 5-
pole; 100% protected against mismatching;
DIN-35 rail/panel mounting; Snap-in
mounting feet; 1,50 mm²; light gray



[Item No.: 734-305/033-000](#)

1-conductor male connector; CAGE
CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 5-
pole; 100% protected against mismatching;
Strain relief plate; 1,50 mm²; light gray



[Item No.: 734-165/105-604/997-405](#)

THR male header; 1.0 x 1.0 mm solder pin;
angled; 100% protected against mismatching;
in tape-and-reel packaging; Pin spacing
3.5 mm; 5-pole; black



[Item No.: 734-165/105-604](#)

THR male header; 1.0 x 1.0 mm solder pin;
angled; 100% protected against mismatching;
Pin spacing 3.5 mm; 5-pole; black



[Item No.: 734-135/105-604/997-405](#)

THR male header; 1.0 x 1.0 mm solder pin;
straight; 100% protected against mismatching;
in tape-and-reel packaging; Pin spacing
3.5 mm; 5-pole; black



[Item No.: 734-135/105-604](#)

THR male header; 1.0 x 1.0 mm solder pin;
straight; 100% protected against mismatching;
Pin spacing 3.5 mm; 5-pole; black



[Item No.: 734-405](#)

THT double-deck male header; 1.0 x 1.0
mm solder pin; angled; 100% protected
against mismatching; Pin spacing 3.5 mm;
10-pole; light gray



[Item No.: 734-405/001-000](#)

THT double-deck male header; 1.0 x 1.0
mm solder pin; angled; 100% protected
against mismatching; Pin spacing 3.5 mm;
10-pole; light gray



[Item No.: 734-165](#)

THT male header; 1.0 x 1.0 mm solder pin;
angled; 100% protected against mismatching;
Pin spacing 3.5 mm; 5-pole; light
gray



[Item No.: 734-135/105-604](#)

THT male header; 1.0 x 1.0 mm solder pin;
straight; 100% protected against mismatching;
Gold-plated contacts; Pin spacing
3.5 mm; 5-pole; light gray

1.1.2 Male connector/plug

**Item No.: 734-135**

THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against misstating; Pin spacing 3.5 mm; 5-pole; light gray

Item No.: 734-135/046-000

THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against misstating; Pin spacing 3.5 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.: 216-131**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.: 216-241**Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white**Item No.: 216-201**Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white**Item No.: 216-221**Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white**Item No.: 216-141**Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92**Item No.: 216-101**Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored**Item No.: 216-121**Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored**Item No.: 216-242**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray**Item No.: 216-262**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray**Item No.: 216-202**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray**Item No.: 216-222**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray**Item No.: 216-142**Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92**Item No.: 216-102**Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored**Item No.: 216-122**Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored**Item No.: 216-243**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red**Item No.: 216-263**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red**Item No.: 216-203**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red**Item No.: 216-223**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red**Item No.: 216-103**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated**Item No.: 216-143**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92**Item No.: 216-123**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored**Item No.: 216-204**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black**Item No.: 216-224**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black**Item No.: 216-244**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black**Item No.: 216-264**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black**Item No.: 216-284**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black**Item No.: 216-124**Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

1.2.1.1 Ferrule



Item No.: 216-144

Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

Item No.: 216-104

Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; silver-colored

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; MAR-KED; 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; MAR-KED; 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; MAR-KED; 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.: 734-605

Strain relief housing; for female and male connectors; 2 parts; Pin spacing 3.5 mm; 5-pole; light gray

1.2.4.2 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

1.2.5 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

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

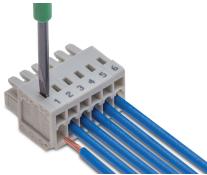


Item No.: 734-230

Operating tool; made of insulating material; 1-way; white

Installation Notes

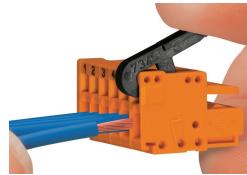
Conductor termination



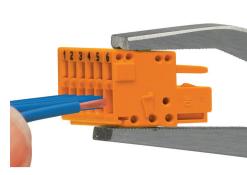
Inserting a conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



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

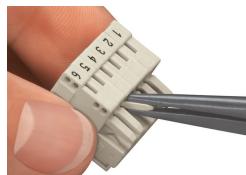


Inserting a conductor into CAGE CLAMP® unit via operating tool (734-191).



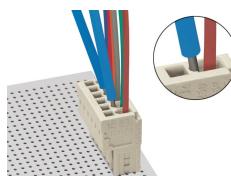
Inserting a conductor into CAGE CLAMP® unit via operating tool (210-251 or 210-250).

Coding



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

Testing



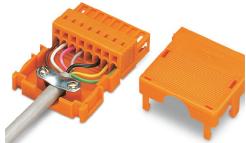
Testing via 1 mm Ø test pin (735-500) – CAGE CLAMP® connection – touch contact.

Marking



Labeling via direct marking or self-adhesive strips.

Installation



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