

# Data Sheet | Item Number: 734-320/018-000

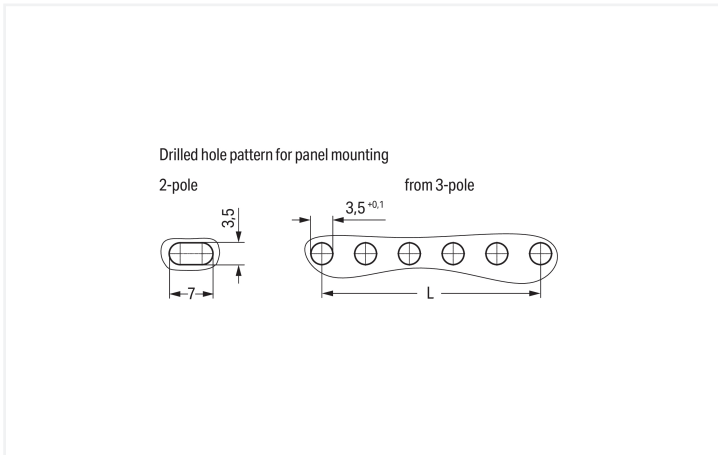
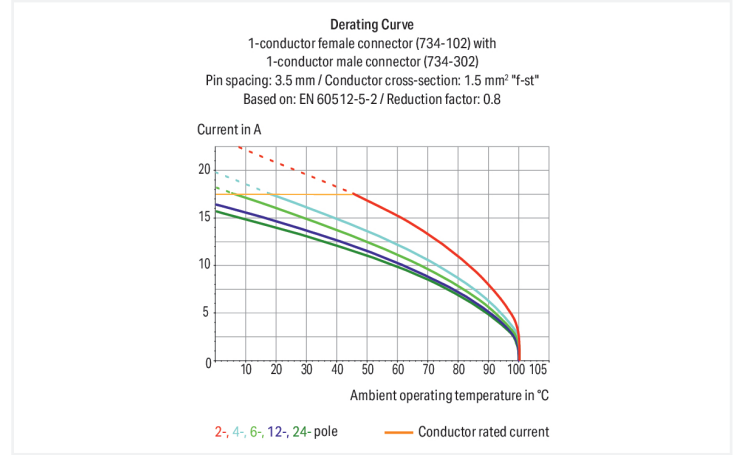
1-conductor male connector; CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 20-pole; 100% protected against mismatching; DIN-35 rail/panel mounting; Snap-in mounting feet; 1,50 mm<sup>2</sup>; light gray



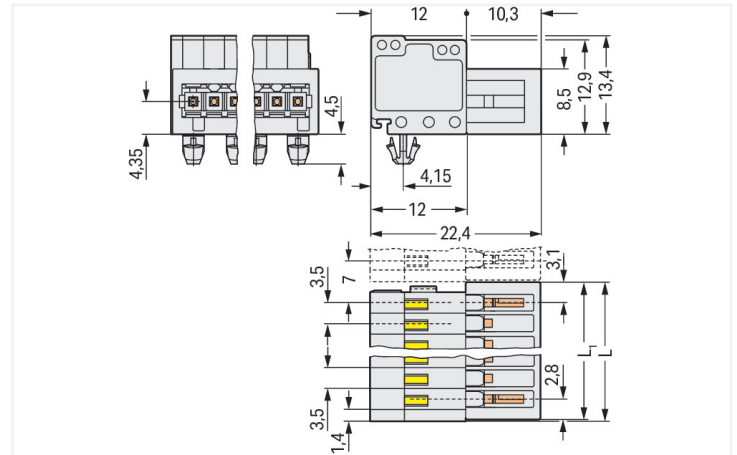
<https://www.wago.com/734-320/018-000>



Color: ■ light gray



Dimensions in mm  
 Even pole number:  $L = (\text{pole no.} - 2) \times \text{pin spacing}$   
 Odd pole number:  $L = (\text{pole no.} - 1) \times \text{pin spacing}$



Dimensions in mm  
 $L = (\text{pole no.} - 1) \times \text{pin spacing} + 5.9 \text{ mm} + 0.45 \text{ mm}$   
 $L_1 = L - 0.45 \text{ mm}$

## Male connector, 734 Series, operating tool

This male connector (item number 734-320/018-000) simplifies electrical installations. Conductors should only be connected to this male connector if their strip length is between 6 and 7 mm. This product features one conductor terminal and utilizes CAGE CLAMP®. Our renowned universal connection known as CAGE CLAMP® leads the way when it comes to connection technology and electrical interconnections. The dimensions are (72.4 x 17.9 x 22.3) mm (width x height x depth). This male connector is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 1.5 mm<sup>2</sup>.

Tin is used for coating the contact surfaces.

## 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			Approvals per	UL 1059		
	III	III	II		Use group	B	C
Overvoltage category	III	III	II	Use group	B	C	D
Pollution degree	3	2	2	Rated voltage	300 V	-	300 V
Nominal voltage	160 V	160 V	320 V	Rated current	10 A	-	10 A
Rated impulse withstand voltage	2.5 kV	2.5 kV	2.5 kV				
Rated current	10 A	10 A	10 A				

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

## Connection Data

Clamping units	20	<b>Connection 1</b>	
Total number of potentials	20	Connection technology	CAGE CLAMP®
Number of connection types	1	Actuation type	Operating tool
Number of levels	1	Actuation direction 1	Operation parallel to conductor entry
		Actuation direction 2	Operation perpendicular to conductor entry
		Solid conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG
		Fine-stranded conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG
		Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm <sup>2</sup>
		Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1.5 mm <sup>2</sup>
		Note (conductor cross-section)	Terminating 1.5 mm <sup>2</sup> 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	20
		Conductor entry direction to mating direction	0°

### Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	72.4 mm / 2.85 inches
Height	17.9 mm / 0.705 inches
Height from the surface	13.4 mm / 0.528 inches
Depth	22.3 mm / 0.878 inches
Drilled hole diameter for snap-in mounting foot with tolerance	3.5 <sup>(+0.1)</sup> mm

### Mechanical data

Variable coding	Yes
Housing sheet thickness	0.6 ... 1.2 mm / 0.024 ... 0.047 inches
Mounting type	Snap-in foot
Mounting type	Panel mounting
Anti-rotation protection	Yes

### Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for conductor
Mismating protection	Yes

### 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	V0
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact Plating	Tin
Fire load	0.298 MJ
Weight	16.5 g

### Environmental requirements

Limit temperature range	-60 ... +100 °C	<b>Environmental Testing</b>	Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Processing temperature	-35 ... +60 °C			
			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 <sub>1</sub> = 5 Hz to f <sub>2</sub> = 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

### Environmental Testing

Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
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

### Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	PL
GTIN	4055143280846
Customs tariff number	85366930000

### 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
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Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	EN 61984	NL-54190
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-105522
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
BV Bureau Veritas S.A.	IEC 60998	11915/E0 BV
DNV DNV GL SE	-	TAE000016Z
PRS Polski Rejestr Statków	-	TE/1095/880590/23

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 734-320/018-000

Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	

CAD/CAE-Data

CAD data
2D/3D Models 734-320/018-000

CAE data
ZUKEN Portal 734-320/018-000

## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Female connector/socket



**Item No.: 734-120**

1-conductor female connector; CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 20-pole; 100% protected against mismatching; 1,50 mm<sup>2</sup>; light gray

## 1.2 Optional Accessories

### 1.2.1 Coding

#### 1.2.1.1 Coding

**Item No.: 734-130**

Coding key; to be snapped above top level; white

### 1.2.2 Cover

#### 1.2.2.1 Cover

**Item No.: 734-420**

Cover for male connectors; for 734 Series; IP20 protection; black

## 1.2.3 Ferrule

### 1.2.3.1 Ferrule



**Item No.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-321**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-131**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-322**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-132**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-241**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-221**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-141**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 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 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-121**



Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored

1.2.3.1 Ferrule

 <p><b>Item No.: 216-242</b> Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray</p>	 <p><b>Item No.: 216-262</b> Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray</p>	 <p><b>Item No.: 216-202</b> Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray</p>	 <p><b>Item No.: 216-222</b> Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray</p>
 <p><b>Item No.: 216-142</b> Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92</p>	 <p><b>Item No.: 216-102</b> Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored</p>	 <p><b>Item No.: 216-122</b> Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored</p>	 <p><b>Item No.: 216-243</b> Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red</p>
 <p><b>Item No.: 216-263</b> Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red</p>	 <p><b>Item No.: 216-203</b> Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red</p>	 <p><b>Item No.: 216-223</b> Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red</p>	 <p><b>Item No.: 216-103</b> Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated</p>
 <p><b>Item No.: 216-143</b> Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92</p>	 <p><b>Item No.: 216-123</b> Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored</p>	 <p><b>Item No.: 216-204</b> Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black</p>	 <p><b>Item No.: 216-224</b> Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black</p>
 <p><b>Item No.: 216-244</b> Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black</p>	 <p><b>Item No.: 216-264</b> Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black</p>	 <p><b>Item No.: 216-284</b> Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black</p>	 <p><b>Item No.: 216-124</b> Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated</p>
 <p><b>Item No.: 216-144</b> Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored</p>	 <p><b>Item No.: 216-104</b> Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored</p>		

1.2.4 Marking

1.2.4.1 Marking strip

 <p><b>Item No.: 210-332/350-202</b> 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</p>	 <p><b>Item No.: 210-332/350-204</b> 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</p>	 <p><b>Item No.: 210-332/350-206</b> 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</p>
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## 1.2.5 Mounting adapter

### 1.2.5.1 Mounting accessories



**Item No.: 209-137**

Mounting adapter; can be used as end stop; 6.5 mm wide; gray

## 1.2.6 Test and measurement

### 1.2.6.1 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 0,5mm<sup>2</sup>

## 1.2.7 Tool

### 1.2.7.1 Operating tool



**Item No.: 734-190**

Combination operating tool; natural



**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**

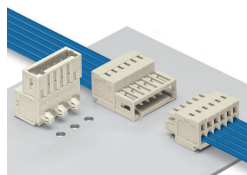
Operating tool; for MCS MINI and MIDI with CAGE CLAMP® connection; red



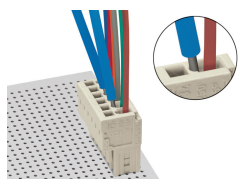
**Item No.: 734-191**

Operating tool; made of insulating material; 1-way; loose; black

## Installation Notes

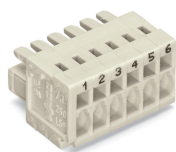


## Testing



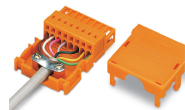
Testing via 1 mm Ø test pin (735-500) – CAGE CLAMP® connection – touch contact.

## Marking



Labeling via direct marking or self-adhesive strips.

## Installation



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