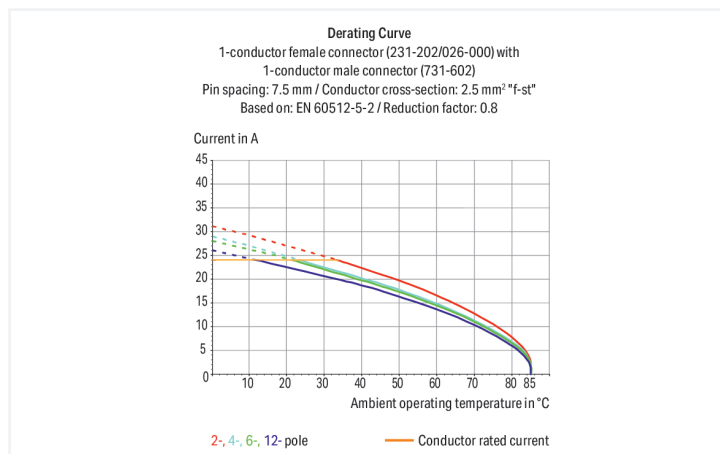
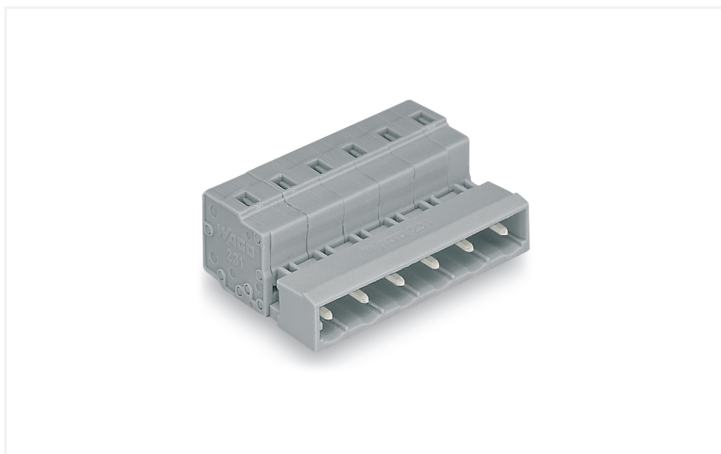


Data Sheet | Item Number: 731-613

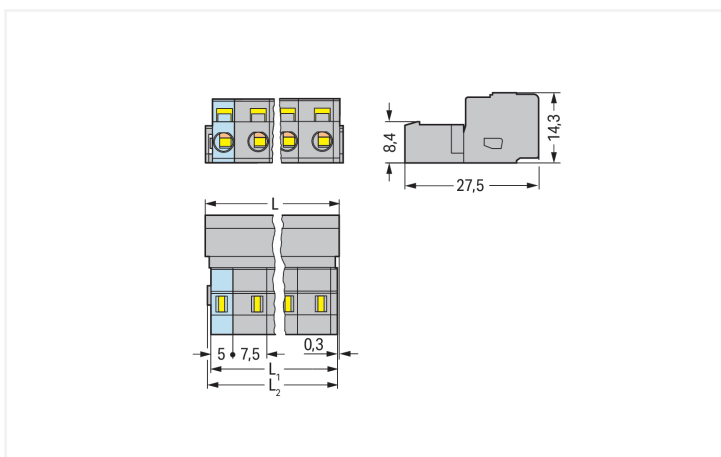
1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; 2,50 mm²; gray

<https://www.wago.com/731-613>



Color: ■ gray

Similar to illustration



Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L - 1.7 \text{ mm}$
 $L_2 = L - 1.2 \text{ mm}$

Male connector, 731 Series, 0° conductor exit to connection direction

Easy electrical installations are guaranteed with this male connector (item number 731-613). Ensure that the strip lengths are between 8 and 9 mm when connecting conductors to this male connector. This product features one conductor terminal and utilizes CAGE CLAMP®. Our trusted universal connection known as CAGE CLAMP® is the industry standard for connection technology and electrical interconnections. Dimensions: (98.2 x 14.3 x 27.5) mm (width x height x depth). Depending on the conductor type, this male connector is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm².

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		
Overvoltage category		III	III	II	Use group	B	C	D	
Pollution degree		3	2	2	Rated voltage	300 V	-	300 V	
Nominal voltage		500 V	630 V	1000 V	Rated current	15 A	-	10 A	
Rated impulse withstand voltage		6 kV	6 kV	6 kV					
Rated current		12 A	12 A	12 A					

Approvals per		UL 1977			Approvals per		CSA		
Rated voltage		600 V			Use group	B	C	D	
Rated current		15 A			Rated voltage	300 V	-	300 V	
					Rated current	15 A	-	10 A	

Connection Data

Clamping units	13	Connection 1	
Total number of potentials	13	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 ... 2.5 mm ² / 28 ... 12 AWG
		Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
		Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
		Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²
		Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
		Pole number	13
		Conductor entry direction to mating direction	0°

Physical data

Pin spacing	7.5 mm / 0.295 inches
Width	98.2 mm / 3.866 inches
Height	14.3 mm / 0.563 inches
Depth	27.5 mm / 1.083 inches

Mechanical data

Variable coding	Yes
Anti-rotation protection	Yes

Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for conductor
Mismating protection	No

Material data

Note (material data)	Information on material specifications can be found here
Color	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 _{cu})
Contact Plating	Tin
Fire load	0.462 MJ
Weight	23.8 g

Environmental requirements

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

Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	10 pcs
Packaging type	Box
Country of origin	DE
GTIN	4017332748032
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 **Approvals for marine applications**



Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-113351
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-130478 REV.1
UR Underwriters Laboratories Inc.	UL 1059	E45172
UR Underwriters Laboratories Inc.	UL 1977	E 45171

Approval	Standard	Certificate Name
LR Lloyds Register	IEC 61984	96/20035 (E5)

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 731-613	↓

Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	↓

CAD/CAE-Data

CAD data	
2D/3D Models 731-613	↓

CAE data	
EPLAN Data Portal 731-613	↓
ZUKEN Portal 731-613	↓

1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket



Item No.: 731-543/031-000
 1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; clamping collar; DIN-35 rail/panel mounting; 2,50 mm²; gray



Item No.: 731-543/008-000
 1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; Snap-in mounting feet; 2,50 mm²; gray



Item No.: 231-213/027-000
 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; clamping collar; gray



Item No.: 231-213/031-000
 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; clamping collar; gray



Item No.: 231-213/026-000
 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; gray



Item No.: 231-213/037-000
 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; Lateral locking levers; gray



Item No.: 231-213/008-000
 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; Snap-in mounting feet; gray



Item No.: 2231-213/026-000
 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; 2,50 mm²; gray



Item No.: 2231-213/031-000
 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; clamping collar; 2,50 mm²; gray



Item No.: 2231-213/037-000
 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; Lateral locking levers; 2,50 mm²; gray



Item No.: 2231-213/008-000
 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; Snap-in mounting feet; 2,50 mm²; gray



Item No.: 232-843
 THT female header; angled; Pin spacing 7.5 mm; 13-pole; 0.6 x 1.0 mm solder pin; gray



Item No.: 232-843/045-000
 THT female header; angled; Pin spacing 7.5 mm; 13-pole; 0.6 x 1.0 mm solder pin; gray



Item No.: 232-843/031-000
 THT female header; angled; Pin spacing 7.5 mm; 13-pole; clamping collar; 0.6 x 1.0 mm solder pin; gray



Item No.: 232-843/039-000
 THT female header; angled; Pin spacing 7.5 mm; 13-pole; Locking lever; 0.6 x 1.0 mm solder pin; gray



Item No.: 232-843/047-000
 THT female header; angled; Pin spacing 7.5 mm; 13-pole; Spacer flange; 0.6 x 1.0 mm solder pin; gray



Item No.: 232-743
 THT female header; straight; Pin spacing 7.5 mm; 13-pole; 0.6 x 1.0 mm solder pin; gray



Item No.: 232-743/045-000
 THT female header; straight; Pin spacing 7.5 mm; 13-pole; 0.6 x 1.0 mm solder pin; gray



Item No.: 232-743/031-000
 THT female header; straight; Pin spacing 7.5 mm; 13-pole; clamping collar; 0.6 x 1.0 mm solder pin; gray



Item No.: 232-743/039-000
 THT female header; straight; Pin spacing 7.5 mm; 13-pole; Locking lever; 0.6 x 1.0 mm solder pin; gray



Item No.: 232-743/047-000
 THT female header; straight; Pin spacing 7.5 mm; 13-pole; Spacer flange; 0.6 x 1.0 mm solder pin; gray

1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding



Item No.: 231-130
 Coding key; snap-on type; light gray

1.2.2 Cover

1.2.2.1 Cover



Item No.: 231-668

Lockout caps; for covering unused clamping units; gray

1.2.3 Ferrule

1.2.3.1 Ferrule



Item No.: 216-301

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



Item No.: 216-302

Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



Item No.: 216-201

Ferrule; Sleeve for 0.5 mm² / 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 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



Item No.: 216-141

Ferrule; Sleeve for 0.5 mm² / 20 AWG; un-insulated; 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; un-insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 1/08.92



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.: 216-142

Ferrule; Sleeve for 0.75 mm² / 18 AWG; un-insulated; 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; un-insulated; 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.: 216-103

Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated



Item No.: 216-143

Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



Item No.: 216-204

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.: 216-144

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



Item No.: 216-106

Ferrule; Sleeve for 2.5 mm² / AWG 14; un-insulated; electro-tin plated; silver-colored

1.2.4 Insulation stop

1.2.4.1 Insulation stop



Item No.: 231-673

Insulation stop; 0.08-0.2 mm² / 0.2 mm² "s"; white



Item No.: 231-674

Insulation stop; 0.25 - 0.5 mm²; light gray



Item No.: 231-675

Insulation stop; 0.75 - 1 mm²; dark gray

1.2.5 Marking

1.2.5.1 Marking strip



Item No.: 210-331/750-202

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (100x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-332/750-020

Marking strips; as a DIN A4 sheet; MARKED; 1-20 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

1.2.6 Tool

1.2.6.1 Operating tool



Item No.: 210-720

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



Item No.: 210-657

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured



Item No.: 231-291

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

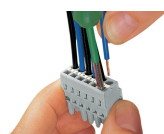


Item No.: 231-131

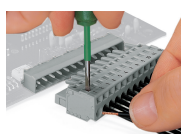
Operating tool; made of insulating material; 1-way; loose; white

Installation Notes

Conductor termination



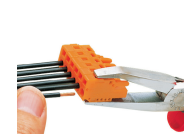
Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.



Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.

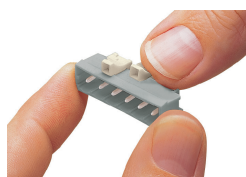


Inserting a conductor into CAGE CLAMP® unit via operating tool (231-291).



Inserting a conductor via operating tool.

Coding



Coding a male header – fitting coding key(s).

Testing



Testing – female connector with CAGE CLAMP®
Integrated test ports for testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug

Installation



Male connector with strain relief plate



Strain relief housing shown with a male connector equipped with CAGE CLAMP®

Marking



Labeling via direct marking or self-adhesive strips.