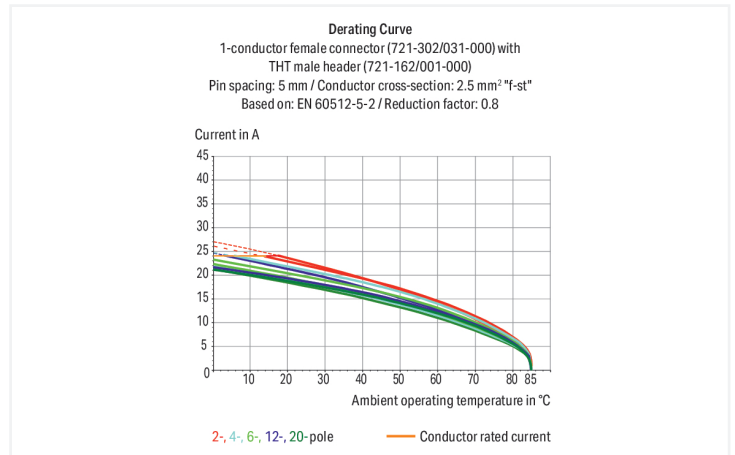


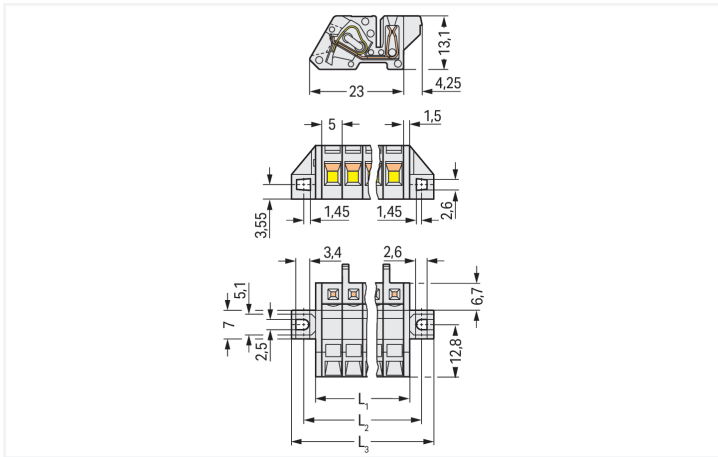
## Data Sheet | Item Number: 721-312/031-000

1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5 mm;  
12-pole; 100% protected against mismatching; clamping collar; 2,50 mm<sup>2</sup>; light gray

<https://www.wago.com/721-312/031-000>



Color: ■ light gray



Dimensions in mm

$L1 = (\text{pole no.} \times \text{pin spacing}) + 3 \text{ mm}$   
 $L2 = (\text{pole no.} \times \text{pin spacing}) + 8.8 \text{ mm}$   
 $L3 = (\text{pole no.} \times \text{pin spacing}) + 14.8 \text{ mm}$

Female connector, 721 Series, operating tool

Effortless electrical installations are guaranteed with this female connector (item number 721-312/031-000). Strip lengths must be between 7 and 8 mm when connecting conductors to this female connector. This product incorporates one conductor terminal and utilizes CAGE CLAMP®. Our trusted universal connection known as CAGE CLAMP® is industry-leading when it comes to connection technology and electrical interconnections. The dimensions are (74.8 x 13.1 x 27.25) mm (width x height x depth). This female connector is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 2.5 mm<sup>2</sup>.

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				Approvals per UL 1059			
	III	III	II	Use group	B	C	D
Overvoltage category	III	III	II	Rated voltage	300 V	-	300 V
Pollution degree	3	2	2	Rated current	15 A	-	10 A
Nominal voltage	320 V	320 V	630 V				
Rated impulse withstand voltage	4 kV	4 kV	4 kV				
Rated current	12 A	12 A	12 A				

Approvals per UL 1977	
Rated voltage	600 V
Rated current	15 A

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

## Connection Data

Clamping units	12
Total number of potentials	12
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
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm <sup>2</sup>
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm <sup>2</sup>
Strip length	7 ... 8 mm / 0.28 ... 0.31 inches
Pole number	12
Conductor entry direction to mating direction	90 °

## Physical data

Pin spacing	5 mm / 0.197 inches
Width	74.8 mm / 2.945 inches
Height	13.1 mm / 0.516 inches
Depth	27.25 mm / 1.073 inches

### Mechanical data

Variable coding	No
Housing sheet thickness	0.6 ... 1.2 mm / 0.024 ... 0.047 inches
Design	angled; mountable
Mounting type	Mounting flange
Mounting type	Panel mounting
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)	<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	Copper alloy
Contact Plating	Tin
Fire load	0.36 MJ
Weight	17.7 g

### Environmental requirements

Limit temperature range	-60 ... +85 °C
Processing temperature	-35 ... +60 °C

### Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918574143
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
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**Approvals / Certificates**

**General approvals**



Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-113351
CSA DEKRA Certification B.V.	C22.2	1466354
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-130478 REV.1
UL Underwriters Laboratories Inc.	UL 1059	E45172
UR Underwriters Laboratories Inc.	UL 1977	E45171

**Approvals for marine applications**



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	24-0095975-PDA
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**

<b>Compliance Search</b>	
Environmental Product Compliance 721-312/031-000	<a href="#">↓</a>

**Documentation**

<b>Additional Information</b>			
Technical Section	03.04.2019	pdf 2027.26 KB	<a href="#">↓</a>

**CAD/CAE-Data**

<b>CAD data</b>	
2D/3D Models 721-312/031-000	<a href="#">↓</a>

<b>CAE data</b>	
EPLAN Data Portal 721-312/031-000	<a href="#">↓</a>
ZUKEN Portal 721-312/031-000	<a href="#">↓</a>

## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Male connector/plug



**Item No.: 721-612**

1-conductor male connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 12-pole; 100% protected against mismatching; 2,50 mm<sup>2</sup>; light gray

**Item No.: 721-142/001-000**

THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismatching; Pin spacing 5 mm; 12-pole; light gray

## 1.2 Optional Accessories

### 1.2.1 Cover

#### 1.2.1.1 Cover



**Item No.: 231-668**

Lockout caps; for covering unused clamping units; gray

### 1.2.2 Ferrule

#### 1.2.2.1 Ferrule



**Item No.: 216-131**

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



**Item No.: 216-132**

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



**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.: 216-141**

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.: 216-242**

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



**Item No.: 216-262**

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



**Item No.: 216-142**

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



**Item No.: 216-243**

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



**Item No.: 216-263**

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



**Item No.: 216-143**

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



**Item No.: 216-244**

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



**Item No.: 216-264**

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



**Item No.: 216-284**

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



**Item No.: 216-144**

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



**Item No.: 216-289**

Ferrule; Sleeve for 10 mm<sup>2</sup> / AWG 8; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-209**

Ferrule; Sleeve for 10 mm<sup>2</sup> / AWG 8; insulated; electro-tin plated; red



**Item No.: 216-109**

Ferrule; Sleeve for 10 mm<sup>2</sup> / AWG 8; uninsulated; electro-tin plated



**Item No.: 216-210**

Ferrule; Sleeve for 16 mm<sup>2</sup> / AWG 6; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



**Item No.: 216-110**

Ferrule; Sleeve for 16 mm<sup>2</sup> / AWG 6; uninsulated; electro-tin plated; brown metallic



**Item No.: 216-246**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

### 1.2.2.1 Ferrule



**Item No.: 216-266**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

**Item No.: 216-286**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

**Item No.: 216-106**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; un-insulated; electro-tin plated; silver-colored

**Item No.: 216-267**

Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-287**

Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

**Item No.: 216-207**

Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; gray

**Item No.: 216-107**

Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; un-insulated; electro-tin plated

**Item No.: 216-208**

Ferrule; Sleeve for 6 mm<sup>2</sup> / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow



**Item No.: 216-288**

Ferrule; Sleeve for 6 mm<sup>2</sup> / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

**Item No.: 216-108**

Ferrule; Sleeve for 6 mm<sup>2</sup> / AWG 10; un-insulated; electro-tin plated; silver-colored

### 1.2.3 Jumper

#### 1.2.3.1 Jumper



**Item No.: 231-910**

Jumper; for conductor entry; 10-way; insulated; gray

**Item No.: 231-902**

Jumper; for conductor entry; 2-way; insulated; gray

**Item No.: 231-903**

Jumper; for conductor entry; 3-way; insulated; gray

**Item No.: 231-905**

Jumper; for conductor entry; 5-way; insulated; gray



**Item No.: 231-907**

Jumper; for conductor entry; 7-way; insulated; gray

### 1.2.4 Marking

#### 1.2.4.1 Marking strip



**Item No.: 210-332/500-202**

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

**Item No.: 210-332/500-205**

Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

**Item No.: 210-332/500-204**

Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

**Item No.: 210-332/500-206**

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

### 1.2.5 Strain relief

#### 1.2.5.1 Strain relief housing



**Item No.: 232-612**

Strain relief housing; for female and male connectors; 2 parts; Pin spacing 5 mm; 12-pole; gray

## 1.2.6 Test and measurement

### 1.2.6.1 Testing accessories



**Item No.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable; red

**Item No.: 231-661**

Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm<sup>2</sup>; light gray

## 1.2.7 Tool

### 1.2.7.1 Operating tool



**Item No.: 280-440**

Operating tool; made of insulating material; 10-way; white

**Item No.: 209-130**

Operating tool; made of insulating material; 1-way; for 264 Series (1-/2-way), 280, 281 Series (up to 3-way); natural

**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



**Item No.: 280-432**

Operating tool; made of insulating material; 2-way; white

**Item No.: 280-433**

Operating tool; made of insulating material; 3-way; white

**Item No.: 280-434**

Operating tool; made of insulating material; 4-way; white

**Item No.: 280-435**

Operating tool; made of insulating material; 5-way; gray



**Item No.: 280-436**

Operating tool; made of insulating material; 6-way; white

**Item No.: 280-437**

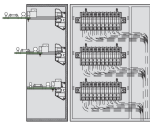
Operating tool; made of insulating material; 7-way; white

**Item No.: 280-438**

Operating tool; made of insulating material; 8-way; white

## Installation Notes

### Application



Multilevel arrangement in a distributed electronic housing

### Application



Angled female connector – a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.