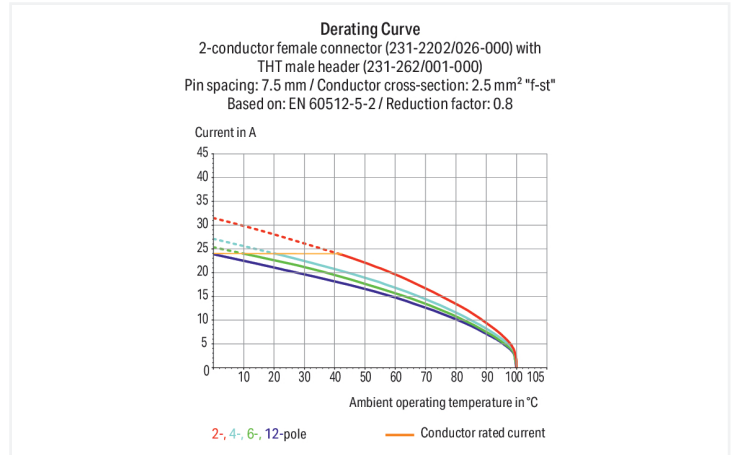


# Data Sheet | Item Number: 231-2209/037-000

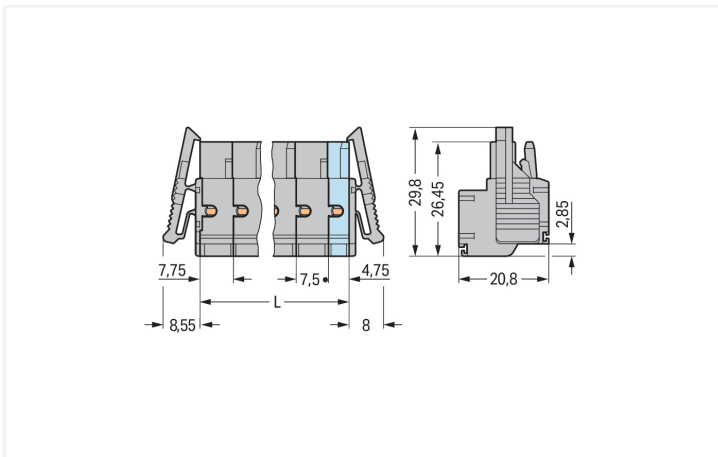
2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 7.5 mm; 9-pole; Lateral locking levers; gray

<https://www.wago.com/231-2209/037-000>



Color: ■ gray

Similar to illustration



Dimensions in mm

L = (pole no. - 2) x pin spacing + 12.5 mm<sup>2</sup>- to 3-pole female connectors – one latch only

## Female connector, 231 Series, operating tool

Effortless electrical installations are guaranteed with this female connector (item number 231-2209/037-000). Conductors can only be connected to this female connector if their strip length is between 9 and 10 mm. Featuring one conductor terminal along with Push-in CAGE CLAMP®, this connector delivers reliable performance. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, offering a key advantage: It allows direct insertion of both solid and fine-stranded conductors with ferrules without needing tools. No preparation is required; for example, crimping the conductor's ferrule is not necessary. The dimensions are (81.55 x 20.8 x 29.8) mm (width x height x depth). This female connector is suitable for conductor cross sections ranging from 0.2 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:

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	500 V	630 V	1000 V
Rated impulse withstand voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A

Approvals per	UL 1977
Rated voltage	600 V
Rated current	20 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	18
Total number of potentials	9
Number of connection types	1
Number of levels	1

## Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
Actuation direction 1	Operation parallel to conductor entry
Solid conductor	0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm <sup>2</sup> / 24 ... 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	9 ... 10 mm / 0.35 ... 0.39 inches
Pole number	9
Conductor entry direction to mating direction	0°

## Physical data

Pin spacing	7.5 mm / 0.295 inches
Width	81.55 mm / 3.211 inches
Height	20.8 mm / 0.819 inches
Depth	29.8 mm / 1.173 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
Mismatching protection	No
Locking of plug-in connection	Locking lever

### Material data

Note (material data)	<a href="#">Information on material specifications can be found here</a>
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	Copper alloy
Contact Plating	Tin
Fire load	0.46 MJ
Weight	26.5 g

### Environmental requirements

Limit temperature range	-60 ... +100 °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	4044918563888
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			Approvals for marine applications		
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-113351	DNV DNV GL SE	-	TAE000016Z
cURus Underwriters Laboratories Inc.	UL 1977	E45171	PRS Polski Rejestr Statków	-	TE/1095/880590/23
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-130478 REV.1			
UL UL International Germany GmbH	UL 1059	E45172			

**Downloads**

**Environmental Product Compliance**

Compliance Search	
Environmental Product Compliance 231-2209/037-000	<a href="#">↓</a>

**Documentation**

**Additional Information**

Technical Section	03.04.2019	pdf 2027.26 KB	<a href="#">↓</a>
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**CAD/CAE-Data**

CAD data	CAE data
2D/3D Models 231-2209/037-000	EPLAN Data Portal 231-2209/037-000
<a href="#">↓</a>	<a href="#">↓</a>
	ZUKEN Portal 231-2209/037-000
	<a href="#">↓</a>

## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Male connector/plug



**Item No.: 731-609**

1-conductor male connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 7.5 mm; 9-pole; 2,50 mm<sup>2</sup>; gray



**Item No.: 231-839/001-000**

THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 7.5 mm; 9-pole; gray



**Item No.: 231-239/001-000**

THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 7.5 mm; 9-pole; gray

## 1.2 Optional Accessories

### 1.2.1 Ferrule

#### 1.2.1.1 Ferrule



**Item No.: 216-241**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; un-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; un-insulated; 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; un-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; un-insulated; 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; un-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; un-insulated; 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; un-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; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored



**Item No.: 216-246**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; un-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.: 216-207**

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



**Item No.: 216-107**

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

### 1.2.2 Insulation stop

#### 1.2.2.1 Insulation stop



**Item No.: 231-673**

Insulation stop; 0.08-0.2 mm<sup>2</sup> / 0.2 mm<sup>2</sup> "s"; white



**Item No.: 231-674**

Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; light gray



**Item No.: 231-675**

Insulation stop; 0.75 - 1 mm<sup>2</sup>; dark gray

### 1.2.3 Marking

#### 1.2.3.1 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

## 1.2.4 Strain relief

### 1.2.4.1 Strain relief plate



**Item No.: 734-430**

Strain relief plate; for female and male connectors; 1 part; gray

**Item No.: 734-326**

Strain relief plate; for female and male connectors; 35 mm wide; 1 part; gray

**Item No.: 734-431**

Strain relief plate; for female and male connectors; 75 mm wide; 1 part; gray

## 1.2.5 Test and measurement

### 1.2.5.1 Testing accessories



**Item No.: 210-136**

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

**Item No.: 231-662**

Test plugs for female connectors; for 7.5 mm and 7.62 mm pin spacing; 2,50 mm<sup>2</sup>; light gray

## 1.2.6 Tool

### 1.2.6.1 Operating tool



**Item No.: 210-720**

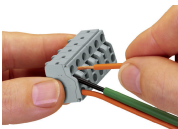
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

**Item No.: 210-657**

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

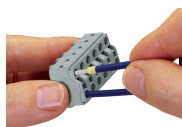
## Installation Notes

### Conductor termination



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm<sup>2</sup> (20 AWG) are terminated and removed using a screwdriver.

## Conductor termination



Solid conductors  $\geq 0.5 \text{ mm}^2$  (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.