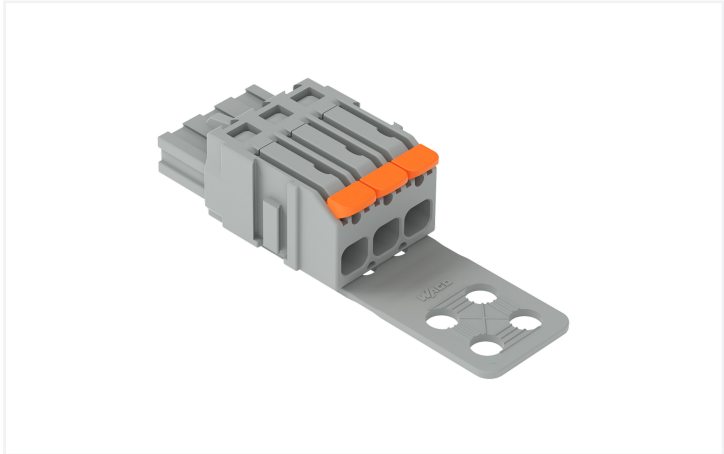
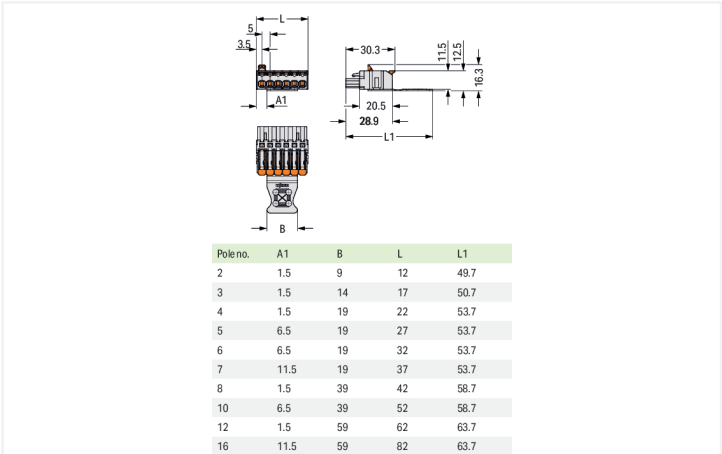
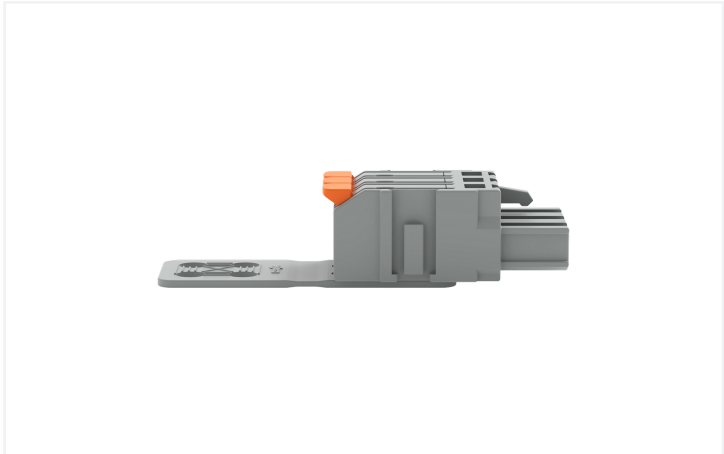
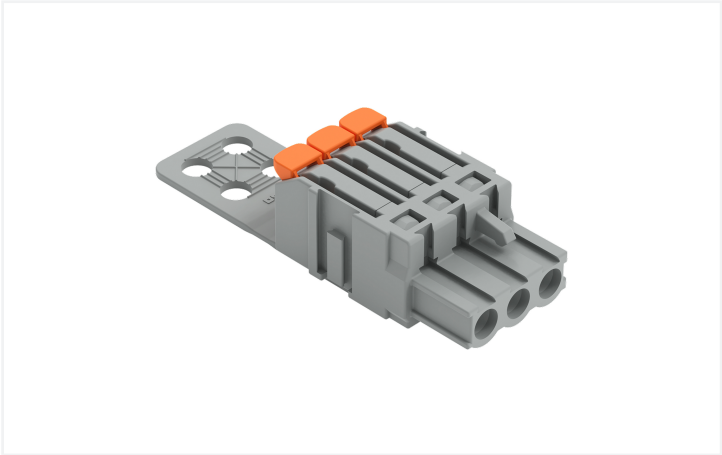
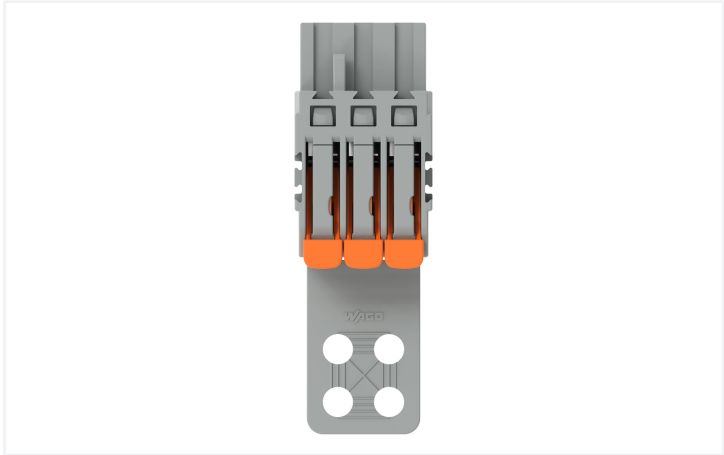




Color: ■ gray



Dimensions in mm

Female connector, 2231 Series, gray

Easy electrical installations are guaranteed with this female connector (item number 2231-1103/327-000/333-000). Conductors can only be connected to this female connector if their strip length is between 11 and 12 mm . Featuring one conductor terminal along with Push-in CAGE CLAMP®, this product delivers reliable performance. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. Both solid and fine-stranded conductors with ferrules

can be inserted without needing to use any tools—all thanks to its pluggable design. Dimensions: (17 x 11.5 x 50.7) mm (width x height x depth). Depending on the type of conductor, this female connector is suitable for conductor cross sections ranging from 0.2 mm² to 2.5 mm².

Tin is used for coating the contact surfaces. The strain relief plate is a safety precaution for connected conductors that also makes cables easier to handle..

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 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		320 V	320 V	630 V
Rated impulse withstand voltage		4 kV	4 kV	4 kV
Rated current		16 A	16 A	16 A
Approvals per		UL 1059		
Use group		B	C	D
Rated voltage		300 V	150 V	300 V
Rated current		20 A	15 A	10 A
Approvals per		CSA		
Use group		B	C	D
Rated voltage		300 V	150 V	300 V
Rated current		20 A	15 A	10 A

Connection Data																				
Clamping units	3	Connection 1 <table><tr><td>Connection technology</td><td>Push-in CAGE CLAMP®</td></tr><tr><td>Actuation type</td><td>Lever</td></tr><tr><td>Solid conductor</td><td>0.2 ... 2.5 mm² / 24 ... 12 AWG</td></tr><tr><td>Fine-stranded conductor</td><td>0.2 ... 2.5 mm² / 24 ... 12 AWG</td></tr><tr><td>Fine-stranded conductor; with insulated ferrule</td><td>0.25 ... 1.5 mm²</td></tr><tr><td>Fine-stranded conductor; with uninsulated ferrule</td><td>0.25 ... 2.5 mm²</td></tr><tr><td>Strip length</td><td>11 ... 12 mm / 0.43 ... 0.47 inches</td></tr><tr><td>Pole number</td><td>3</td></tr><tr><td>Conductor entry direction to mating direction</td><td>0 °</td></tr></table>	Connection technology	Push-in CAGE CLAMP®	Actuation type	Lever	Solid conductor	0.2 ... 2.5 mm² / 24 ... 12 AWG	Fine-stranded conductor	0.2 ... 2.5 mm² / 24 ... 12 AWG	Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm²	Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm²	Strip length	11 ... 12 mm / 0.43 ... 0.47 inches	Pole number	3	Conductor entry direction to mating direction	0 °
Connection technology	Push-in CAGE CLAMP®																			
Actuation type	Lever																			
Solid conductor	0.2 ... 2.5 mm² / 24 ... 12 AWG																			
Fine-stranded conductor	0.2 ... 2.5 mm² / 24 ... 12 AWG																			
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm²																			
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm²																			
Strip length	11 ... 12 mm / 0.43 ... 0.47 inches																			
Pole number	3																			
Conductor entry direction to mating direction	0 °																			
Total number of potentials	3																			
Number of connection types	1																			
Number of levels	1																			

Physical data	
Pin spacing	5 mm / 0.197 inches
Width	17 mm / 0.669 inches
Height	11.5 mm / 0.453 inches
Depth	50.7 mm / 1.996 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		No
Strain relief		Strain relief plate

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		Copper alloy
Contact Plating		Tin
Fire load		0.091 MJ
Actuator color		orange
Weight of insulation material		3.81 g
Weight		5.7 g

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

Commercial data		
PU (SPU)		100 pcs
Packaging type		Box
Country of origin		PL
GTIN		4066966637663
Customs tariff number		85366990990

Product Classification		
UNSPSC		39121409
ETIM 10.0		EC002638
ECCN		NO US CLASSIFICATION

Environmental Product Compliance		
RoHS Compliance Status		Compliant, No Exemption

Downloads

Environmental Product Compliance

Compliance Search

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Documentation

Additional Information

Technical Section

03.04.2019

pdf

2027.26 KB

↓

CAD/CAE-Data

CAD data

↓

1 Compatible Products

1.1 System counterpart

1.1.1 Male connector/plug

 Item No.: 231-603 1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 3-pole; gray	 Item No.: 2231-1603 1-conductor male connector; lever; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 3-pole; 2,50 mm²; gray	 Item No.: 2231-1603/333-000 1-conductor male connector; lever; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 3-pole; Strain relief plate; 2,50 mm²; gray	 Item No.: 231-433/001-000/105-604/997-405 THR male header; 1.0 x 1.0 mm solder pin; angled; in tape-and-reel packaging; Pin spacing 5 mm; 3-pole; black
 Item No.: 231-433/001-000/105-604 THR male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 3-pole; black	 Item No.: 231-133/001-000/105-604/997-405 THR male header; 1.0 x 1.0 mm solder pin; straight; in tape-and-reel packaging; Pin spacing 5 mm; 3-pole; black	 Item No.: 231-133/001-000/105-604 THR male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 3-pole; black	 Item No.: 231-463/001-000/105-604/997-405 THR male header; 1.2 x 1.2 mm solder pin; angled; in tape-and-reel packaging; Pin spacing 5 mm; 3-pole; black
 Item No.: 231-463/001-000/105-604 THR male header; 1.2 x 1.2 mm solder pin; angled; Pin spacing 5 mm; 3-pole; black	 Item No.: 231-163/001-000/105-604/997-405 THR male header; 1.2 x 1.2 mm solder pin; straight; in tape-and-reel packaging; Pin spacing 5 mm; 3-pole; black	 Item No.: 231-163/001-000/105-604 THR male header; 1.2 x 1.2 mm solder pin; straight; Pin spacing 5 mm; 3-pole; black	 Item No.: 231-433/001-000 THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 3-pole; gray
 Item No.: 231-133/001-000 THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 3-pole; gray	 Item No.: 231-463/001-000 THT male header; 1.2 x 1.2 mm solder pin; angled; Pin spacing 5 mm; 3-pole; gray	 Item No.: 231-163/001-000 THT male header; 1.2 x 1.2 mm solder pin; straight; Pin spacing 5 mm; 3-pole; gray	

1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding



Item No.: 2231-505
Coding pin carrier; 5 coding keys; for female connectors; orange

1.2.2 Ferrule

1.2.2.1 Ferrule



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.: 216-263
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.: 216-264
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

1.2.3 Locking system

1.2.3.1 Locking system



Item No.: 2231-515
center locking; for female connectors; For Push-in CAGE CLAMP® connection; lever; Pin spacing 5 mm; 5-pole; orange



Item No.: 2231-510
Locking lever; for female connectors; 1 part; For Push-in CAGE CLAMP® connection; lever; orange

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 Test and measurement

1.2.5.1 Testing accessories



Item No.: 231-661
Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm²; light gray



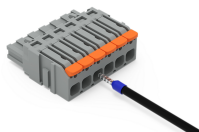
Item No.: 735-500
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm²

Installation Notes

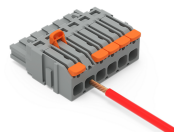
Conductor termination



Inserting solid conductor via push-in termination.

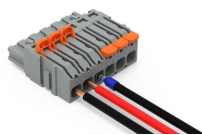


Ferruled fine-stranded conductors can be directly inserted.



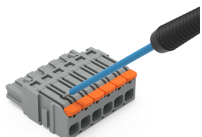
Insert fine-stranded conductors – and remove all conductors – via operating tool.

Conductor removal

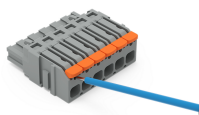


Removing a conductor via lever.

Testing



Prüfen senkrecht zur Leiteranschlussrichtung (90°) Prüfstift 1 mm 735-500



Prüfen aus Leiteranschlussrichtung (0°) Prüfstift 1 mm 735-500

Coding



Coding a 1-conductor female connector by inserting a coding pin.