

Data Sheet | Item Number: 2022-182

End module for 1-conductor female connector; Push-in CAGE CLAMP®; 4 mm²; Pin spacing 5.2 mm; 1-pole; 4,00 mm²; orange

<https://www.wago.com/2022-182>



Color: ■ orange



Female connector, 2022 Series, Push-in CAGE CLAMP®

Enjoy effortless electrical installations with this female connector (item number 2022-182). Conductors should only be connected to this female connector if their strip length is between 10 and 12 mm. Pluggable rail-mount terminal blocks are hugely popular in switchgear and control systems, for example, in railroad technology. They combine the best of rail-mount terminal blocks and connectors to create the perfect solution. Variable wiring systems make pre-assembly easy, which saves both time and money in production, installation, operation, and maintenance. This product incorporates conductor terminals and utilizes Push-in CAGE CLAMP®. 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 (5.2 x 40.5 x 22.4) mm (width x height x depth). Depending on the conductor type, this female connector is designed for conductor cross sections ranging from 0.25 mm² to 4 mm².

This female connector/socket is operated with an operating tool.



Notes	
Safety Information	According to EN 61984, pluggable connectors without current interrupting capacity must not be mated or unmated when live or under load.

Electrical data

Ratings per		IEC/EN 61984		Approvals per		UL 1059	
Overvoltage category	III	III	II	Use group	B	C	D
Pollution degree	3	2	2	Rated voltage	600 V	600 V	-
Nominal voltage	690 V	-	-	Rated current	20 A	20 A	-
Rated impulse withstand voltage	6 kV	-	-				
Rated current	24 A	-	-				
Current at conductor cross-section (max.) mm ²	32 A	-	-				

Approvals per		CSA 22.2 No 158	
Use group	B	C	D
Rated voltage	-	600 V	-
Rated current	-	20 A	-

General information	
Wiring direction	Front-entry wiring

Connection Data

Clamping units	1	Connection 1	
Total number of potentials	1	Connection technology	Push-in CAGE CLAMP®
		Actuation type	Operating tool
		Connectable conductor materials	Copper
		Nominal cross-section	2.5 mm ²
		Solid conductor	0.25 ... 4 mm ² / 22 ... 12 AWG
		Solid conductor; push-in termination	0.75 ... 4 mm ² / 18 ... 12 AWG
		Fine-stranded conductor	0.25 ... 4 mm ² / 22 ... 12 AWG
		Fine-stranded conductor; with insulated fer- rule	0.25 ... 2.5 mm ² / 22 ... 14 AWG
		Fine-stranded conductor; with ferrule; push- in termination	1 ... 2.5 mm ² / 18 ... 14 AWG
		Note (conductor cross-section)	Depending on the conductor characteristic, a conductor with a smaller cross-section can also be inserted via push-in termina- tion.
		Strip length	10 ... 12 mm / 0.39 ... 0.47 inches
		Pole number	1
		Wiring direction	Front-entry wiring

Physical data	
Width	5.2 mm / 0.205 inches
Height	40.5 mm / 1.594 inches
Depth	22.4 mm / 0.882 inches



Mechanical data	
Variable coding	Yes
Marking level	Side marking
Anti-rotation protection	Yes

Plug-in connection	
Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	No
Plugging without loss of pin spacing	Yes

Material data	
Note (material data)	Information on material specifications can be found here
Color	orange
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.059 MJ
Weight	3.6 g

Environmental requirements	
Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C

Environmental Testing	
Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
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 ₁ = 5 Hz to f ₂ = 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
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	f ₁ = 5 Hz to f ₂ = 150 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.



Environmental Testing	
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	18 (X-COM-System)
PU (SPU)	250 pcs
Packaging type	Bag
Country of origin	CN
GTIN	4066966659979
Customs tariff number	85366990990

Product Classification	
UNSPSC	39121409
eCl@ss 10.0	27-14-11-06
eCl@ss 9.0	27-14-11-06
ETIM 9.0	EC001284
ETIM 10.0	EC001284
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
					
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CSA CSA Group	C22.2 No. 158	2437422	Railway WAGO GmbH & Co. KG	-	Z00004392.000

Downloads

Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 2022-182	

Documentation			
Bid Text			
2022-182	19.02.2019	xml 4.26 KB	
2022-182	14.05.2019	docx 16.13 KB	

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 2022-182 	EPLAN Data Portal 2022-182 
	WSCAD Universe 2022-182 
	ZUKEN Portal 2022-182 

1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 Ferrule

 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.: 216-242 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.: 216-243 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.: 216-244 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.: 216-246 Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue
 Item No.: 216-266 Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue			



1.1.2 Insulation stop

1.1.2.1 Insulation stop



Item No.: 2002-171
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/
strip; light gray



Item No.: 2002-172
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip;
dark gray

1.1.3 Locking system

1.1.3.1 Locking system



Item No.: 2022-141
Locking lever; gray



Item No.: 2022-151
Locking lever; gray



Item No.: 2022-142
Locking lever; orange



Item No.: 2022-152
Locking lever; orange

1.1.4 Marking

1.1.4.1 Marker



Item No.: 793-5501
WMB marking card; as card; for terminal
block width 5 - 17.5 mm; stretchable 5 - 5.2
mm; plain; snap-on type; white



Item No.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces
on roll; stretchable 5 - 5.2 mm; plain; snap-
on type; white

1.1.4.2 Marking strip



Item No.: 210-833
Marking strips; 25 m on roll; 6 mm wide;
plain; Self-adhesive; white



Item No.: 2009-110
Marking strips; for Smart Printer; on reel; not
stretchable; plain; snap-on type; white



Item No.: 210-831
Marking strips; on reel; 2.3 mm wide; plain;
Self-adhesive; white



Item No.: 210-832
Marking strips; on reel; 3 mm wide; plain;
Self-adhesive; white



Item No.: 210-834
Marking strips; on reel; 5 mm wide; plain;
Self-adhesive; white

1.1.5 Protective warning marker

1.1.5.1 Cover



Item No.: 2002-115
Protective warning marker; for 5 terminal
blocks; with high-voltage symbol, black; yel-
low

1.1.6 Strain relief

1.1.6.1 Strain relief plate

Item No.: 734-430

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

Item No.: 734-328

Strain relief plate; for female and male connectors; 12.5 mm wide; 1 part; gray

Item No.: 734-329

Strain relief plate; for female and male connectors; 25 mm wide; 1 part; gray

Item No.: 734-326

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

Item No.: 734-327

Strain relief plate; for female and male connectors; 6 mm wide; 1 part; gray

Item No.: 734-431

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

1.1.7 Tool

1.1.7.1 Operating tool



Item No.: 210-720

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

Installation Notes

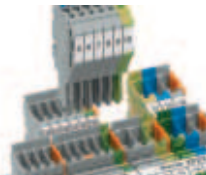
Coding



Insert coding pin into the corresponding slot and twist it off.



Coding a female plug: remove coding finger using a suitable tool.



Insert coded female plug into X-COM*5-SYSTEM terminal block assembly.

Locking system



Slide the locking lever into position.



Female plugs can be individually locked.