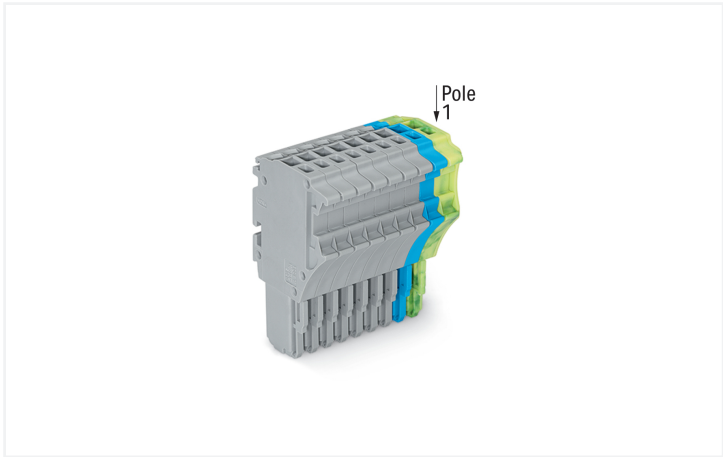




Color:  gray/blue/green-yellow

Female connector, 2020 Series, Push-in CAGE CLAMP®

This female connector (item number 2020-109/000-038) simplifies electrical installations. Conductors can only be connected to this female connector if their strip length is between 9 and 11 mm . Pluggable rail-mount terminal blocks are primarily found in switchgear units and control systems, most notably in railroad technology. These innovative systems combine the properties of rail-mount terminal blocks and connectors for a flexible and reliable wiring system. You also have the option of pre-assembling installations, which not only makes production but also installation, operation, and maintenance more efficient and cost-effective. This product features conductor terminals and utilizes Push-in CAGE CLAMP®. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, featuring a winning design: 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 (32.2 x 40.5 x 22.4) mm (width x height x depth). Depending on the type of conductor, this female connector is ideal for conductor cross sections ranging from 0.14 mm² to 1.5 mm².

An operating tool is used to operate this female connector/socket.

Notes	
Safety Information	According to EN 61984, pluggable connectors without current interrupting capacity must not be mated or unmated when live or under load.
Safety information 2	Notice: An appropriate end plate must be applied to the carrier terminal blocks after each female plug.

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	300 V 300 V 300 V
Nominal voltage		500 V	-	-	Rated current	15 A 15 A 15 A
Rated impulse withstand voltage		6 kV	-	-		
Rated current		13.5 A	-	-		



Approvals per		CSA 22.2 No 158		
Use group		B	C	D
Rated voltage		300 V	300 V	300 V
Rated current		10 A	10 A	10 A

General information	
Wiring direction	Front-entry wiring

Connection Data

Clamping units	9
Total number of potentials	9

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Nominal cross-section	1 mm²
Solid conductor	0.14 ... 1.5 mm² / 24 ... 16 AWG
Solid conductor; push-in termination	0.5 ... 1.5 mm² / 20 ... 16 AWG
Fine-stranded conductor	0.14 ... 1.5 mm² / 24 ... 16 AWG
Fine-stranded conductor; with insulated ferrule	0.14 ... 0.75 mm² / 24 ... 18 AWG
Fine-stranded conductor; with ferrule; push-in termination	0.5 ... 0.75 mm² / 20 ... 18 AWG
Note (conductor cross-section)	Depending on the conductor characteristic, a conductor with a smaller cross-section can also be inserted via push-in termination.
Strip length	9 ... 11 mm / 0.35 ... 0.43 inches
Pole number	9
Wiring direction	Front-entry wiring

Physical data

Width	32.2 mm / 1.268 inches
Height	40.5 mm / 1.594 inches
Depth	22.4 mm / 0.882 inches
Module width	3.5 mm / 0.138 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

Material data

Note (material data)	Information on material specifications can be found here
Color	gray/blue/green-yellow
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.368 MJ
Weight	20.5 g



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

Commercial data	
Product Group	18 (X-COM-System)
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821027270
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	



Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc.	UL 1059	E 45172

Downloads	
Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 2020-109/000-038	



Documentation

Bid Text			
2020-109/000-038	19.02.2019	xml 4.01 KB	
2020-109/000-038	06.08.2018	docx 15.21 KB	

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 2020-109/000-038	EPLAN Data Portal 2020-109/000-038
	WSCAD Universe 2020-109/000-038
	ZUKEN Portal 2020-109/000-038

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.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

1.1.2 Locking system

1.1.2.1 Locking system



Item No.: 2022-151
Locking lever; gray



Item No.: 2022-152
Locking lever; orange

1.1.3 Marking

1.1.3.1 Marker



Item No.: 793-3501
WMB marking card; as card; plain; snap-on type; white



Item No.: 2009-113
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; white



1.1.3.2 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

1.1.4 Protective warning marker

1.1.4.1 Cover



Item No.: 2000-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.1.5 Screwless end stop

1.1.5.1 Mounting accessories



Item No.: 249-117
Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



Item No.: 249-116
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.1.6 Strain relief

1.1.6.1 Strain relief plate



Item No.: 734-329
Strain relief plate; for female and male connectors; 25 mm wide; 1 part; gray

1.1.7 Tool

1.1.7.1 Operating tool



Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



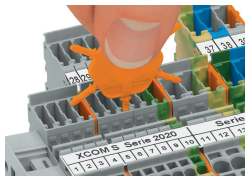
Item No.: 210-648
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short



Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Installation Notes

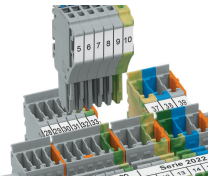
Coding



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®S-SYSTEM terminal block assembly.