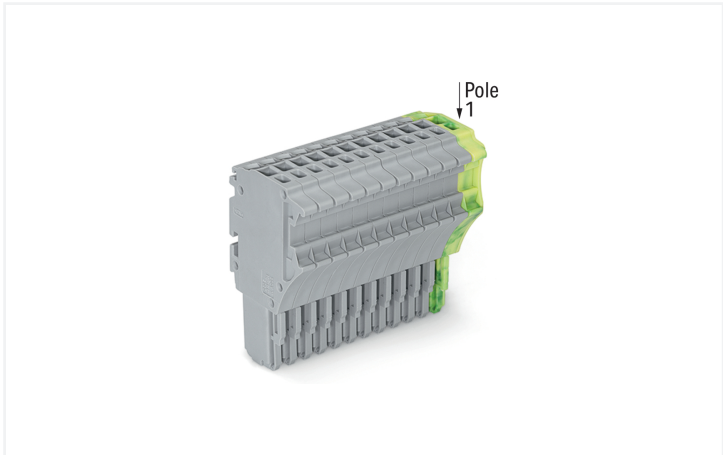




Color:  gray/green-yellow

Female connector, 2020 Series, gray/green-yellow

This female connector (item number 2020-112/000-036) simplifies electrical installations. Conductors should 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, boasting a key feature: 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 item's dimensions are (42.7 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.

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. |
| 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             | 12 | <b>Connection 1</b>                                        |                                                                                                                                   |
| Total number of potentials | 12 | 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                                                | 12                                                                                                                                |
|                            |    | Wiring direction                                           | Front-entry wiring                                                                                                                |

| Physical data |                        |
|---------------|------------------------|
| Width         | 42.7 mm / 1.681 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)               |  | <a href="#">Information on material specifications can be found here</a> |
| Color                              |  | gray/green-yellow                                                        |
| Material group                     |  | I                                                                        |
| Insulation material (main housing) |  | Polyamide (PA66)                                                         |
| Flammability class per UL94        |  | V0                                                                       |
| Fire load                          |  | 0.485 MJ                                                                 |
| Weight                             |  | 27.2 g                                                                   |



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

| Commercial data       |                   |
|-----------------------|-------------------|
| Product Group         | 18 (X-COM-System) |
| PU (SPU)              | 20 pcs            |
| Packaging type        | Box               |
| Country of origin     | DE                |
| GTIN                  | 4050821026907     |
| 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<br>Underwriters Laboratories<br>Inc. | UL 1059  | E 45172          |

| Downloads                                               |  |
|---------------------------------------------------------|--|
| Environmental Product Compliance                        |  |
| Compliance Search                                       |  |
| Environmental Product<br>Compliance<br>2020-112/000-036 |  |



Documentation

| Bid Text         |            |                  |  |
|------------------|------------|------------------|--|
| 2020-112/000-036 | 19.02.2019 | xml<br>4.01 KB   |  |
| 2020-112/000-036 | 06.08.2018 | docx<br>15.20 KB |  |

CAD/CAE-Data

| CAD data                         |
|----------------------------------|
| 2D/3D Models<br>2020-112/000-036 |



| CAE data                              |
|---------------------------------------|
| EPLAN Data Portal<br>2020-112/000-036 |
| WSCAD Universe<br>2020-112/000-036    |
| ZUKEN Portal<br>2020-112/000-036      |



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.: 734-326**  
Strain relief plate; for female and male connectors; 35 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



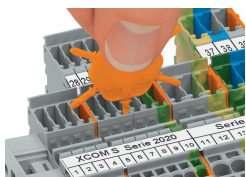
**Item No.: 210-648**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short



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

## Installation Notes

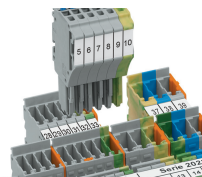
### Coding



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.