



Color: ■ green-yellow

Similar to illustration

Female connector, 2022 Series, operating tool

This female connector (item number 2022-107/000-016) simplifies electrical installations. Conductors can 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 for the perfect solution. Variable wiring systems make pre-assembly easy, which leads to considerable time and cost savings in production, installation, operation, and maintenance. This product incorporates conductor terminals and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. It allows direct insertion of both solid and fine-stranded conductors with ferrules without needing to use any tools—all thanks to its pluggable design. The item's dimensions are (36.4 x 40.5 x 22.4) mm (width x height x depth). This female connector is suitable 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 |     |    | General information |                    |
| Overvoltage category            |  | III          | III | II | Wiring direction    | Front-entry wiring |
| Pollution degree                |  | 3            | 2   | 2  |                     |                    |
| Nominal voltage                 |  | -            | -   | -  |                     |                    |
| Rated impulse withstand voltage |  | -            | -   | -  |                     |                    |
| Rated current                   |  | -            | -   | -  |                     |                    |



| Connection Data            |   |                                                            |                                                                                                                                   |
|----------------------------|---|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Clamping units             | 7 | Connection 1                                               |                                                                                                                                   |
| Total number of potentials | 7 | Connection technology                                      | Push-in CAGE CLAMP®                                                                                                               |
|                            |   | Actuation type                                             | Operating tool                                                                                                                    |
|                            |   | Connectable conductor materials                            | Copper                                                                                                                            |
|                            |   | Nominal cross-section                                      | 2.5 mm²                                                                                                                           |
|                            |   | Solid conductor                                            | 0.25 ... 4 mm² / 22 ... 12 AWG                                                                                                    |
|                            |   | Solid conductor; push-in termination                       | 0.75 ... 4 mm² / 18 ... 12 AWG                                                                                                    |
|                            |   | Fine-stranded conductor                                    | 0.25 ... 4 mm² / 22 ... 12 AWG                                                                                                    |
|                            |   | Fine-stranded conductor; with insulated ferrule            | 0.25 ... 2.5 mm² / 22 ... 14 AWG                                                                                                  |
|                            |   | Fine-stranded conductor; with ferrule; push-in termination | 1 ... 2.5 mm² / 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 termination. |
|                            |   | Strip length                                               | 10 ... 12 mm / 0.39 ... 0.47 inches                                                                                               |
|                            |   | Pole number                                                | 7                                                                                                                                 |
|                            |   | Wiring direction                                           | Front-entry wiring                                                                                                                |

| Physical data |  |                        |
|---------------|--|------------------------|
| Width         |  | 36.4 mm / 1.433 inches |
| Height        |  | 40.5 mm / 1.594 inches |
| Depth         |  | 22.4 mm / 0.882 inches |
| Module width  |  | 5.2 mm / 0.205 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)               |  | <a href="#">Information on material specifications can be found here</a> |
| Color                              |  | green-yellow                                                             |
| Material group                     |  | I                                                                        |
| Insulation material (main housing) |  | Polyamide (PA66)                                                         |
| Flammability class per UL94        |  | V0                                                                       |
| Fire load                          |  | 0.444 MJ                                                                 |
| Weight                             |  | 24.5 g                                                                   |

## Environmental requirements

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

## Environmental Testing

|                                                                                                     |                                                     |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Test specification:<br>Railway applications –<br>Rolling stock –<br>Electronic equipment            | DIN EN 50155 (VDE 0115-200):2022-06                 |
| Test procedure:<br>Railway applications –<br>Rolling stock equipment –<br>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                                                                                           | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$      |
| 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                                                                                           | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$      |
| 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.                                   |
| 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)              | 50 pcs            |
| Packaging type        | Box               |
| Country of origin     | DE                |
| GTIN                  | 4066966676266     |
| 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<br>CSA Group                                                                 | C22.2 No. 158 | 2437422          | Railway<br>WAGO GmbH & Co. KG                                                     | -        | Z00004391.000    |

| Downloads                                            |                                                                                     |
|------------------------------------------------------|-------------------------------------------------------------------------------------|
| Environmental Product Compliance                     |                                                                                     |
| Compliance Search                                    |                                                                                     |
| Environmental Product Compliance<br>2022-107/000-016 |  |

| CAD/CAE-Data                     |                                       |
|----------------------------------|---------------------------------------|
| CAD data                         | CAE data                              |
| 2D/3D Models<br>2022-107/000-016 | EPLAN Data Portal<br>2022-107/000-016 |
|                                  | WSCAD Universe<br>2022-107/000-016    |
|                                  | ZUKEN Portal<br>2022-107/000-016      |



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.: 216-284**  
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



**Item No.: 216-286**  
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.: 2022-151**  
Locking lever; gray



**Item No.: 2022-152**  
Locking lever; orange

1.1.4 Marking

1.1.4.1 Label



**Item No.: 210-805**  
Labels; for Smart Printer; permanent adhesive; 6 x 15 mm; 3000 pieces on roll; white



**Item No.: 210-805/000-002**  
Labels; for Smart Printer; permanent adhesive; 6 x 15 mm; 3000 pieces on roll; yellow



1.1.4.2 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

1.1.4.3 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; yellow

1.1.6 Screwless end stop

1.1.6.1 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

1.1.7 Strain relief

1.1.7.1 Strain relief plate



**Item No.: 734-326**  
Strain relief plate; for female and male connectors; 35 mm wide; 1 part; gray

1.1.8 Tool

1.1.8.1 Operating tool

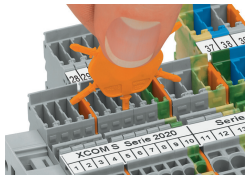


Item No.: 210-720

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

Installation Notes

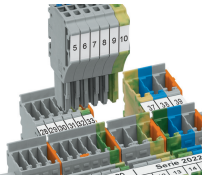
Coding



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

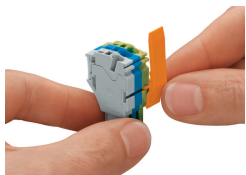


Coding a female plug: remove coding finger using a suitable tool.

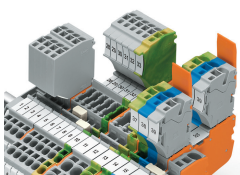


Insert coded female plug into X-COM®S-SYSTEM terminal block assembly.

Locking system



Slide the locking lever into position.



Female plugs can be individually locked.