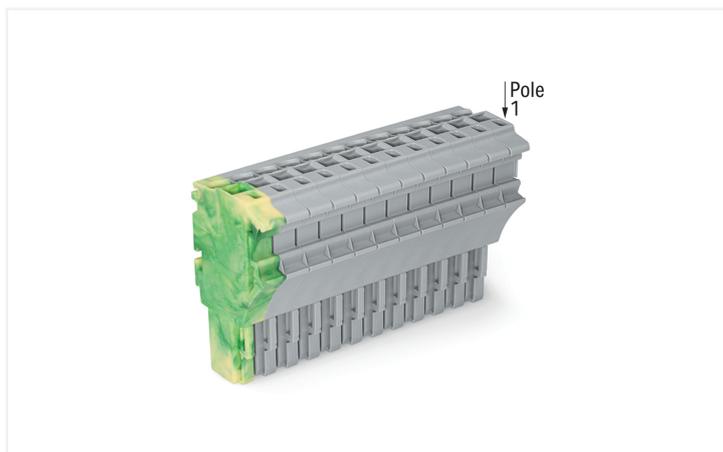


## Data Sheet | Item Number: 2022-113/000-037

1-conductor female connector; Push-in CAGE CLAMP®; 4 mm<sup>2</sup>; Pin spacing 5.2 mm;  
13-pole; 4,00 mm<sup>2</sup>; green-yellow/gray

<https://www.wago.com/2022-113/000-037>



Color: ■ gray/green-yellow

Similar to illustration

Female connector, 2022 Series, gray/green-yellow

Enjoy easy electrical installations with this female connector (item number 2022-113/000-037). Ensure that the strip lengths are between 10 and 12 mm when connecting conductors to this female connector. 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. Featuring conductor terminals along with Push-in CAGE CLAMP®, this product outperforms the competition. 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 dimensions are (67.6 x 40.5 x 22.4) mm (width x height x depth). Depending on the conductor type, this female connector is ideal for conductor cross sections ranging from 0.25 mm<sup>2</sup> to 4 mm<sup>2</sup>.

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 |       |   |
|---|--------------|-----|----|---------------|---------|-------|---|
|   | III          | III | II |               | B       | C     | D |
| Overvoltage category                                      | III          | III | II |               |         |       |   |
| Pollution degree  | 3            | 2   | 2  |               |         |       |   |
| Nominal voltage   | 690 V        | -   | -  |               |         |       |   |
| Rated impulse withstand voltage                           | 6 kV         | -   | -  |               |         |       |   |
| Rated current   | 24 A         | -   | -  |               |         |       |   |
| Current at conductor cross-section (max.) mm <sup>2</sup> | 32 A         | -   | -  |               |         |       |   |
|   |              |     |    | Use group     | 600 V   | 600 V | - |
|   |              |     |    | Rated voltage | 20 A    | 20 A  | - |
|   |              |     |    | Rated current |         |       |   |

| 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             | 13 |
| Total number of potentials | 13 |

| Connection 1   |   |
|--|---|
| Connection technology                                      | Push-in CAGE CLAMP®   |
| Actuation type   | Operating tool  |
| Connectable conductor materials                            | Copper  |
| Nominal cross-section                                      | 2.5 mm <sup>2</sup>   |
| Solid conductor  | 0.25 ... 4 mm <sup>2</sup> / 22 ... 12 AWG  |
| Solid conductor; push-in termination                       | 0.75 ... 4 mm <sup>2</sup> / 18 ... 12 AWG  |
| Fine-stranded conductor                                    | 0.25 ... 4 mm <sup>2</sup> / 22 ... 12 AWG  |
| Fine-stranded conductor; with insulated ferrule            | 0.25 ... 2.5 mm <sup>2</sup> / 22 ... 14 AWG  |
| Fine-stranded conductor; with ferrule; push-in termination | 1 ... 2.5 mm <sup>2</sup> / 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  | 13  |
| Wiring direction   | Front-entry wiring  |

## Physical data

|              |                        |
|--------------|------------------------|
| Width        | 67.6 mm / 2.661 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                              | gray/green-yellow  |
| Material group                     | I  |
| Insulation material (main housing) | Polyamide (PA66)   |
| Flammability class per UL94        | V0   |
| Fire load                          | 0.822 MJ   |
| Weight                             | 45.4 g   |

## Environmental requirements

|                                  |                 |  |
|----------------------------------|-----------------|--|
| Processing temperature           | -35 ... +85 °C  | <b>Environmental Testing</b>   |
| Continuous operating temperature | -60 ... +105 °C |  |
|                                  |                 | Test specification: DIN EN 50155 (VDE 0115-200):2022-06<br>Railway applications –<br>Rolling stock –<br>Electronic equipment             |
|                                  |                 | Test procedure: DIN EN 61373 (VDE 0115-0106):2011-04<br>Railway applications –<br>Rolling stock equipment –<br>Vibration and shock tests |
|                                  |                 | 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)              | 25 pcs            |
| Packaging type        | Box               |
| Country of origin     | DE                |
| GTIN                  | 4066966676983     |
| 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   | -        | Z00004392.000    |

**Downloads**

**Environmental Product Compliance**

|  |   |
|--|---|
| Compliance Search                                    |   |
| Environmental Product Compliance<br>2022-113/000-037 | ↓ |

**Documentation**

|                  |            |                  |   |
|------------------|------------|------------------|---|
| Bid Text         |            |                  |   |
| 2022-113/000-037 | 17.05.2019 | xml<br>4.21 KB   | ↓ |
| 2022-113/000-037 | 14.05.2019 | docx<br>15.47 KB | ↓ |

CAD/CAE-Data

**CAD data**

2D/3D Models  
2022-113/000-037

**CAE data**

EPLAN Data Portal  
2022-113/000-037

WSCAD Universe  
2022-113/000-037

ZUKEN Portal  
2022-113/000-037

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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup>; 5 pieces/strip; light gray



**Item No.: 2002-172**  
Insulation stop; 0.75 - 1 mm<sup>2</sup>; 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.: 734-430**

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

## 1.1.8 Tool

### 1.1.8.1 Operating tool

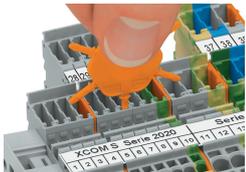


**Item No.: 210-720**

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

## Installation Notes

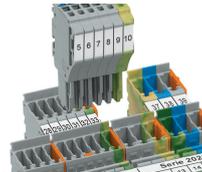
### Coding



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.