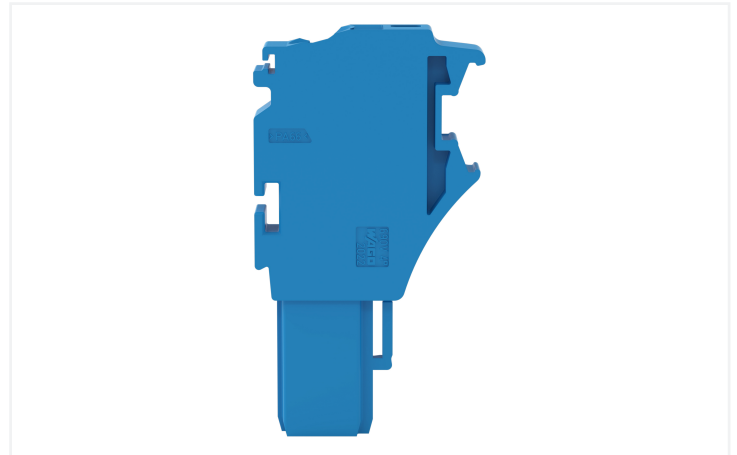
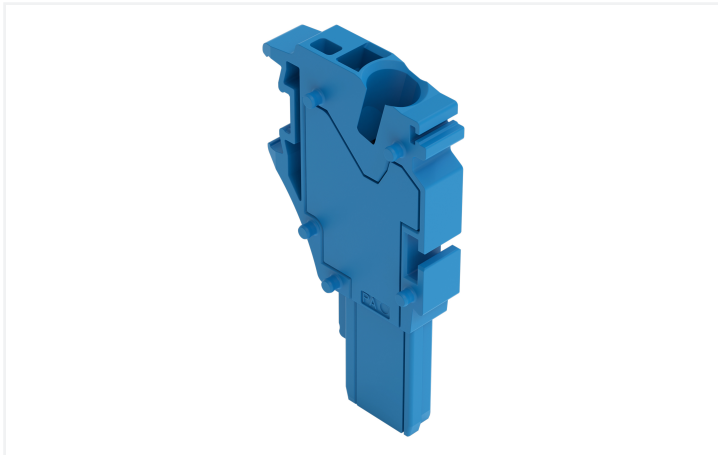


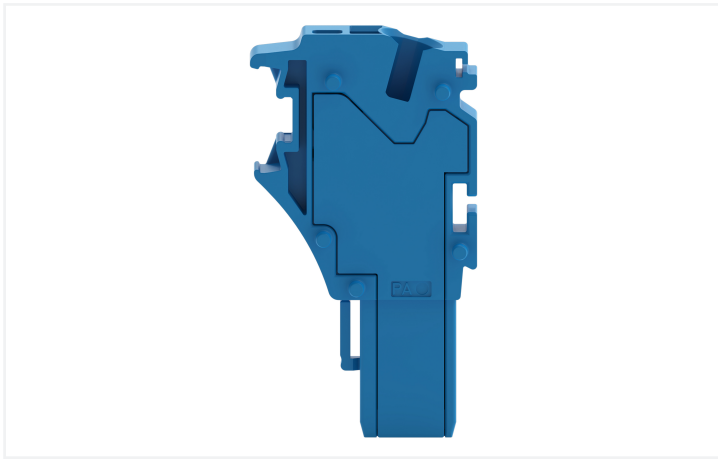
## Data Sheet | Item Number: 2022-184

End module for 1-conductor female connector; Push-in CAGE CLAMP®; 4 mm<sup>2</sup>; Pin spacing 5.2 mm; 1-pole; 4,00 mm<sup>2</sup>; blue

<https://www.wago.com/2022-184>



Color: ■ blue



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

This female connector (item number 2022-184) provides fault-free electrical installations. Ensure that the strip lengths are between 10 and 12 mm when connecting conductors to this female connector. Pluggable rail-mount terminal blocks are mainly used in switchgear units and control systems (e. g., in railroad technology). They are essentially a combination of rail-mount terminal blocks and pluggable connectors. You can also pre-assemble installations thanks to the variable wiring system. This saves both time and money during manufacture, installation, operation, and maintenance. Featuring conductor terminals along with Push-in CAGE CLAMP®, this connector is highly versatile. Push-in CAGE CLAMP® technology provides a universal connection solution for all conductor types. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. The item's dimensions are (5.2 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 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 |    |
|-----------------------------------------------|-------|--------------|----|
| 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.) mm² | 32 A  | -            | -  |

| Approvals per |       | UL 1059 |   |
|---------------|-------|---------|---|
| Use group     | B     | C       | D |
| Rated voltage | 600 V | 600 V   | - |
| Rated current | 20 A  | 20 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 |
| Total number of potentials | 1 |

| Connection 1                                               |                                                                                                                                   |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 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                                                | 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)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | blue                                                                     |
| Material group                     | I                                                                        |
| Insulation material (main housing) | Polyamide (PA66)                                                         |
| Flammability class per UL94        | V0                                                                       |
| Fire load                          | 0.065 MJ                                                                 |
| Weight                             | 3.6 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 <sub>1</sub> = 5 Hz to f <sub>2</sub> = 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 <sub>1</sub> = 5 Hz to f <sub>2</sub> = 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                                               |



| Environmental Testing                                                 |                   |
|-----------------------------------------------------------------------|-------------------|
| 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)              | 250 pcs           |
| Packaging type        | Bag               |
| Country of origin     | CN                |
| GTIN                  | 4066966659986     |
| 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          | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG                             | -        | -                |
| KEMA/KEUR<br>DEKRA Certification B.V.                                                                                                                                                                                                                      | EN 61984      | 71-101560        | Railway<br>WAGO GmbH & Co. KG                                                       | -        | Z00004392.000    |
| UL<br>Underwriters Laboratories<br>Inc.                                                                                                                                                                                                                    | UL 1059       | E45172           | UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG                             | -        | -                |



Approvals for marine applications



| Approval                                              | Standard | Certificate Name  |
|-------------------------------------------------------|----------|-------------------|
| ABS<br>American Bureau of Ship-<br>ping               | EN 60947 | 24-0152298-PDA    |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd | -        | TAE00001V2        |
| PRS<br>Polski Rejestr Statków                         | -        | TE/1094/880590/23 |

Downloads

Environmental Product Compliance

| Compliance Search                            |
|----------------------------------------------|
| Environmental Product<br>Compliance 2022-184 |



Documentation

| Bid Text |            |                  |  |
|----------|------------|------------------|--|
| 2022-184 | 19.02.2019 | xml<br>4.26 KB   |  |
| 2022-184 | 14.05.2019 | docx<br>16.12 KB |  |

CAD/CAE-Data

| CAD data                 |
|--------------------------|
| 2D/3D Models<br>2022-184 |



| CAE data                      |
|-------------------------------|
| EPLAN Data Portal<br>2022-184 |
| WSCAD Universe<br>2022-184    |
| ZUKEN Portal<br>2022-184      |





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.: 2022-141**  
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; 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



**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

1.1.8 Tool

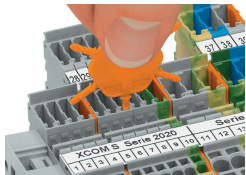
1.1.8.1 Operating tool



**Item No.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

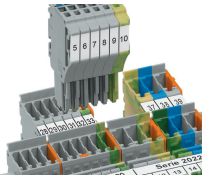
Coding



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

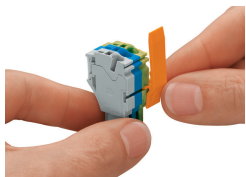


Coding a female plug: remove coding finger using a suitable tool.

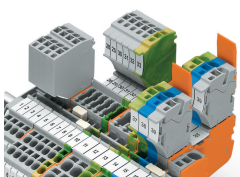


Insert coded female plug into X-COM®S-SYSTEM terminal block assembly.

Locking system



Slide the locking lever into position.



Female plugs can be individually locked.