# Data Sheet | Item Number: 2020-167

Start module for 1-conductor female connector; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 1-pole; with integrated end plate; 1,50 mm²; green-yellow

https://www.wago.com/2020-167



Color: green-yellow

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

Enjoy seamless electrical installations with this female connector (item number 2020-167). Ensure that the strip lengths are between 9 and 11 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. 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, offering a key advantage: both solid and fine-stranded conductors with ferrules can be directly inserted without the need for tools or any preparation, such as crimping the ferrule. The item's dimensions are (4.2 x 40.5 x 22.4) mm (width x height x depth). This female connector is suitable for conductor cross sections ranging from 0.14 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 | | |
|---|---|---|---|
| Overvoltage category | III | III | II |
| Pollution degree | 3 | 2 | 2 |
| Nominal voltage | - | - | - |
| Rated impulse withstand voltage | - | - | - |
| Rated current | - | - | - |

| 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 | 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 | 1 |
| Wiring direction | Front-entry wiring |

## Physical data

| | |
|---|---|
| Width | 4.2 mm / 0.138 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 |

## Material data

| | |
|---|---|
| Note (material data) | Information on material specifications can be found here |
| Color | green-yellow |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.05 MJ |
| Weight | 2.7 g |


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## Environmental requirements

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

## Commercial data

| | |
|---|---|
| Product Group | 18 (X-COM-System) |
| PU (SPU) | 250 pcs |
| Packaging type | Box |
| Country of origin | CN |
| GTIN | 4050821245155 |
| 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 |
|---|---|---|
| CCA<br>DEKRA Certification B.V. | EN 60947 | NTR NL 7617 |
| CSA<br>DEKRA Certification B.V. | C22.2 | 2516073 |
| UL<br>UL International Germany GmbH | UL 1059 | E 45172 |

### Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|---|---|
| EU-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |

### Approvals for marine applications

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


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## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 2020-167

### Documentation

**Bid Text**

| | | |
|---|---|---|
| 2020-167 | 19.02.2019 | xml 4.16 KB |
| 2020-167 | 06.08.2018 | docx 15.54 KB |

### CAD/CAE-Data

**CAD data**

2D/3D Models 2020-167

**CAE data**

EPLAN Data Portal 2020-167

WSCAD Universe 2020-167

ZUKEN Portal 2020-167

## 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.: 2022-141
Locking lever; gray



Item No.: 2022-151
Locking lever; gray



Item No.: 2022-142
Locking lever; orange



Item No.: 2022-152
Locking lever; orange

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## 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 Strain relief

### 1.1.5.1 Strain relief plate



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

## 1.1.6 Tool

### 1.1.6.1 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

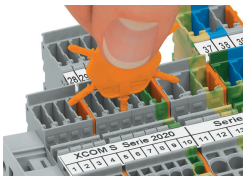


Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured


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## Installation Notes

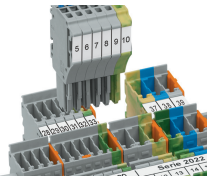
### Coding



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.