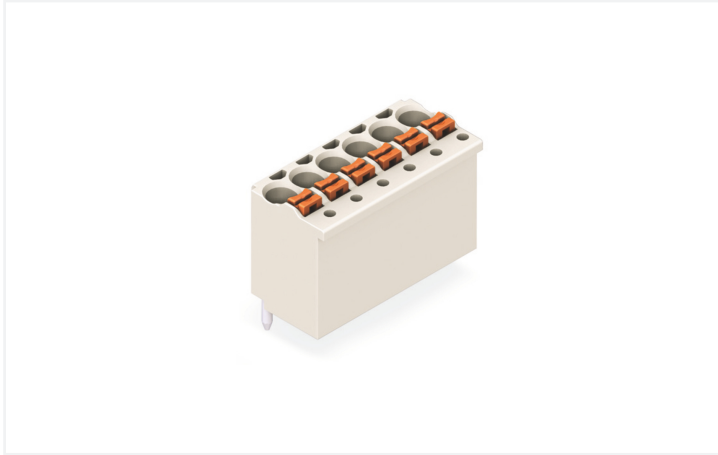


## Data Sheet | Item Number: 2091-2176/200-000

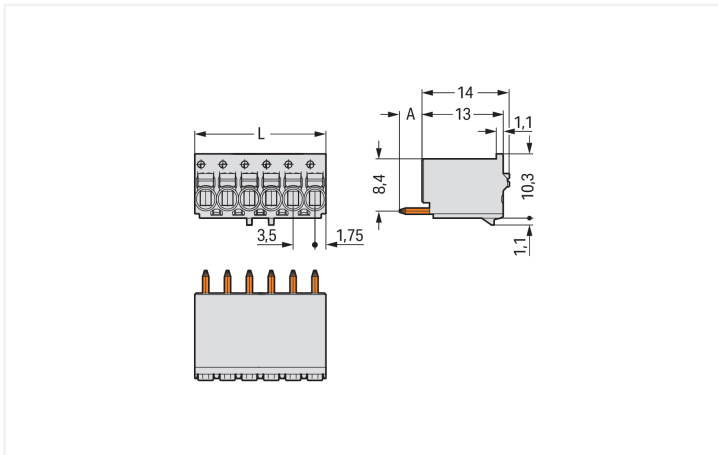
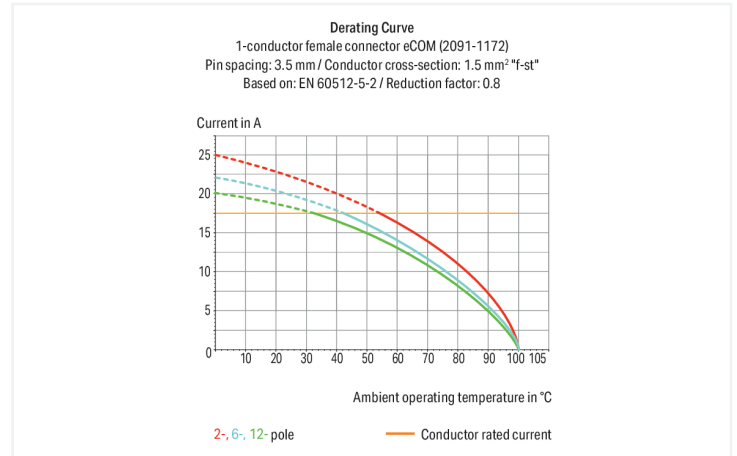
1-conductor THR female connector straight; push-button; Push-in CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 6-pole; 1.0 mm Ø solder pin; Silver-plated contacts; 1,50 mm<sup>2</sup>; light gray



<https://www.wago.com/2091-2176/200-000>



Color: ■ light gray



Dimensions in mm

L = pole no. x pin spacing A = 3.6 mm THT solder pin A = 2.4 mm THR solder pin

Female connector, 2091 Series, push-button

Enjoy easy electrical installations with this female connector (item number 2091-2176/200-000). Strip lengths must be between 8 and 9 mm when connecting conductors to this female connector. This product features one conductor terminal and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® technology provides a universal connection solution for any type of conductor. 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 (21 x 14 x 11.4) mm (width x height x depth). This female connector is suitable for conductor cross sections ranging from 0.2 mm<sup>2</sup> to 1.5 mm<sup>2</sup>.

The contact surface is coated with silver. THR is used to solder the pcb connector.

## Notes

## Safety Information

The **picoMAX® Pluggable Connection System** includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when un-mated.

## Safety information 2

The use of ferrules is recommended for applications with higher requirements.

To prevent excessive force on the clamping point, effective cable strain relief must be used.

## Electrical data

## Ratings per IEC/EN

|   |  |
|---|--|
| Ratings per                               | IEC/EN 60664-1   |
| Nominal voltage (III/3)                   | 160 V  |
| Rated impulse withstand voltage (III / 3) | 2.5 kV   |
| Rated voltage (III/2)                     | 160 V  |
| Rated impulse withstand voltage (III/2)   | 2.5 kV   |
| Nominal voltage (II/2)                    | 320 V  |
| Rated impulse withstand voltage (II/2)    | 2.5 kV   |
| Rated current                             | 10 A   |
| Legend (ratings)                          | (III / 2) $\triangleq$ Overvoltage category III / Pollution degree 2 |

## Ratings per UL

|                                |         |
|--------------------------------|---------|
| Approvals per                  | UL 1059 |
| Rated voltage UL (Use Group B) | 300 V   |
| Rated current UL (Use Group B) | 10 A    |
| Rated voltage UL (Use Group D) | 300 V   |
| Rated current UL (Use Group D) | 10 A    |

## Connection Data

|                            |   |
|----------------------------|---|
| Clamping units             | 6 |
| Total number of potentials | 6 |
| Number of connection types | 1 |
| Number of levels           | 1 |

## Connection 1

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Actuation type                                    | Push-button                                 |
| Actuation direction 1                             | Operation parallel to conductor entry       |
| Solid conductor                                   | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG |
| Fine-stranded conductor                           | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup>               |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup>                |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inches           |
| Conductor connection direction to PCB             | 90°   |
| Pole number                                       | 6   |

## Physical data

|                                    |                        |
|------------------------------------|------------------------|
| Pin spacing                        | 3.5 mm / 0.138 inches  |
| Width                              | 21 mm / 0.827 inches   |
| Height                             | 14 mm / 0.551 inches   |
| Depth                              | 11.4 mm / 0.449 inches |
| Solder pin length                  | 2.4 mm                 |
| Solder pin diameter                | 1 mm                   |
| Plated through-hole diameter (THR) | 1.2 (+0.1) mm          |

### Mechanical data

|                          |     |
|--------------------------|-----|
| Variable coding          | No  |
| Anti-rotation protection | Yes |

### Plug-in connection

|                                      |                         |
|--------------------------------------|-------------------------|
| Contact type (pluggable connector)   | Female connector/socket |
| Connector (connection type)          | for PCB                 |
| Mismating protection                 | No                      |
| Plugging without loss of pin spacing | Yes                     |
| Mating direction to the PCB          | 90 °                    |

### PCB contact

|             |     |
|-------------|-----|
| PCB contact | THR |
|-------------|-----|

### Material data

|                                    |  |
|------------------------------------|--|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | light gray   |
| Material group                     | I  |
| Insulation material (main housing) | Polyphthalamide (PPA GF)   |
| Flammability class per UL94        | V0   |
| Clamping spring material           | Chrome-nickel spring steel (CrNi)  |
| Contact material                   | Electrolytic copper (E <sub>Cu</sub> )                                   |
| Contact Plating                    | Silver   |
| Fire load                          | 0.061 MJ   |
| Weight                             | 3.2 g  |

### Environmental requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
| Processing temperature  | -35 ... +60 °C  |

### Commercial data

|                       |               |
|-----------------------|---------------|
| PU (SPU)              | 100 pcs       |
| Packaging type        | Box           |
| Country of origin     | DE            |
| GTIN                  | 4066966518610 |
| Customs tariff number | 85366990990   |

### Product Classification

|           |                      |
|-----------|----------------------|
| UNSPSC    | 39121409             |
| ETIM 9.0  | EC002637             |
| ETIM 10.0 | EC002637             |
| ECCN      | NO US CLASSIFICATION |

**Environmental Product Compliance**

RoHS Compliance Status Compliant, No Exemption

**Approvals / Certificates**

**General approvals**



| Approval                              | Standard  | Certificate Name |
|---------------------------------------|-----------|------------------|
| CB<br>DEKRA Certification B.V.        | IEC 61984 | NL-89884         |
| CSA<br>CSA Group                      | C22.2     | 2362521          |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 61984  | 71-129873        |

**Downloads**

**Environmental Product Compliance**

Compliance Search

|   |   |
|---|---|
| Environmental Product Compliance<br>2091-2176/200-000 | ↓ |
|---|---|

**Documentation**

Additional Information

|                   |            |                   |   |
|-------------------|------------|-------------------|---|
| Technical Section | 03.04.2019 | pdf<br>2027.26 KB | ↓ |
|                   |            | pdf<br>611.20 KB  | ↓ |

**CAD/CAE-Data**

CAD data

|                                   |   |
|-----------------------------------|---|
| 2D/3D Models<br>2091-2176/200-000 | ↓ |
|-----------------------------------|---|

**1 Compatible Products**

**1.1 Optional Accessories**

**1.1.1 Ferrule**

**1.1.1.1 Ferrule**



**Item No.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow

**Item No.: 216-131**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored

**Item No.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise

**Item No.: 216-132**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-101**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored

**Item No.: 216-202**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

**Item No.: 216-102**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored

**Item No.: 216-122**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-203**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red

**Item No.: 216-103**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated

**Item No.: 216-143**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

**Item No.: 216-204**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-144**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

**Item No.: 216-104**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored

**Item No.: 216-106**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated; silver-colored

**1.1.2 Test and measurement**

**1.1.2.1 Testing accessories**



**Item No.: 735-500**

WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm<sup>2</sup>

**1.1.3 Tool**

**1.1.3.1 Operating tool**

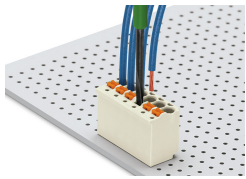


**Item No.: 210-719**

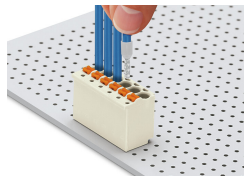
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

## Installation Notes

### Conductor termination



Terminating fine-stranded conductors and removing all conductor types via push-buttons.



Solid and ferruled conductors are terminated by simply pushing them into unit.

### Marking



Pole marking via direct marking perpendicular to conductor entry.



Pole marking via factory direct marking.

### Testing



Testing via 1 mm Ø test pin – touch contact.