

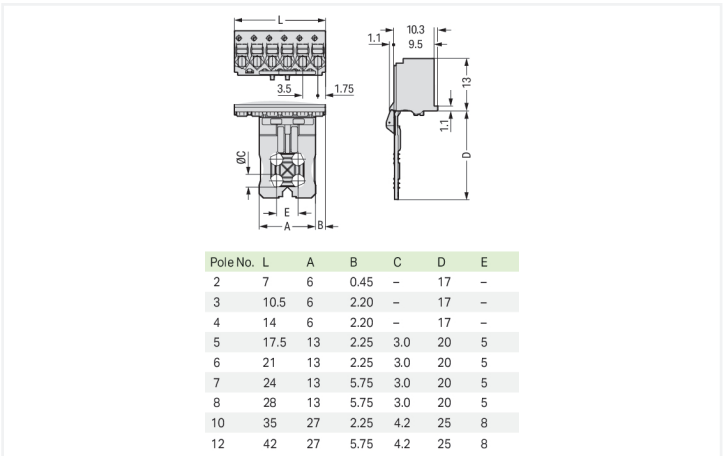
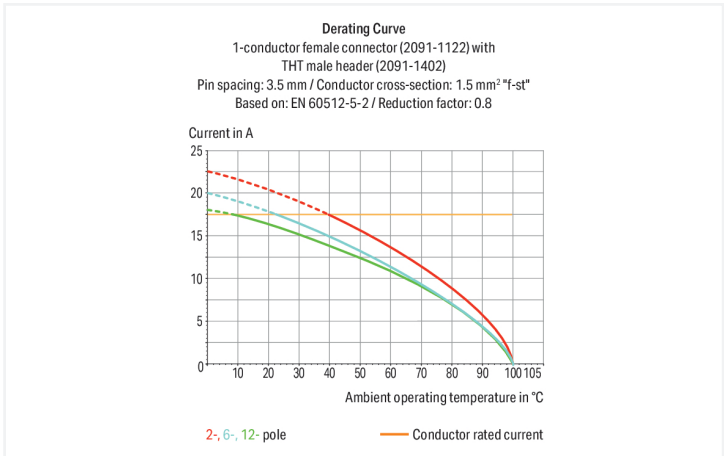
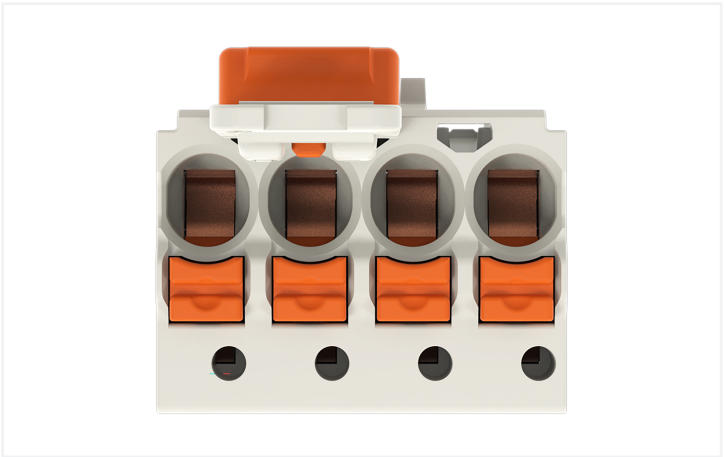
**Data Sheet | Item Number: 2091-1104/002-000**

1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 4-pole; Gripping plate sliding connector release; 1,50 mm<sup>2</sup>; light gray

<https://www.wago.com/2091-1104/002-000>



Color: ■ light gray



Dimensions in mm

Female connector, 2091 Series, Push-in CAGE CLAMP®

Fault-free electrical installations are guaranteed with this female connector (item number 2091-1104/002-000). Strip lengths must be between 8 and 9 mm when connecting conductors to this female connector. Featuring one conductor terminal along with Push-in CAGE CLAMP®, this product is highly versatile. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. Solid and fine-stranded conductors with ferrules can be inserted without the

need for tools—all thanks to its pluggable design. The dimensions are (14 x 31 x 12.4) mm (width x height x depth). Depending on the conductor type, this female connector is designed 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 tin.

## Notes

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety Information   | The <b>picoMAX® Pluggable Connection System</b> 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 unmated. |
| Safety information 2 | The use of ferrules is recommended for applications with higher requirements.<br><br>To prevent excessive force on the clamping point, effective cable strain relief must be used.                                                                                                                                                                                                                                                    |
| Variants:            | Direct marking<br>Other versions (or variants) can be requested from WAGO Sales or configured at <a href="https://configurator.wago.com/">https://configurator.wago.com/</a> .                                                                                                                                                                                                                                                        |

### Electrical data

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

| Approvals per |       | UL 1059 |       |
|---------------|-------|---------|-------|
| Use group     | B     | C       | D     |
| Rated voltage | 300 V | -       | 300 V |
| Rated current | 10 A  | -       | 10 A  |

## Connection Data

|                            |   |
|----------------------------|---|
| Clamping units             | 4 |
| Total number of potentials | 4 |
| 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 mm² / 24 ... 14 AWG       |
| Fine-stranded conductor                              | 0.2 ... 1.5 mm² / 24 ... 14 AWG       |
| Fine-stranded conductor; with insulated fer-<br>rule | 0.25 ... 0.75 mm²                     |
| Fine-stranded conductor; with uninsulated<br>ferrule | 0.25 ... 1.5 mm²                      |
| Strip length                                         | 8 ... 9 mm / 0.31 ... 0.35 inches     |
| Pole number                                          | 4                                     |

## Physical data

|             |                        |
|-------------|------------------------|
| Pin spacing | 3.5 mm / 0.138 inches  |
| Width       | 14 mm / 0.551 inches   |
| Height      | 31 mm / 1.22 inches    |
| Depth       | 12.4 mm / 0.488 inches |



| Mechanical data          |                                                   |
|--------------------------|---------------------------------------------------|
| Variable coding          | Yes                                               |
| Design                   | with gripping plate and sliding connector release |
| 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                              | 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                    | Tin                                                                      |
| Fire load                          | 0.025 MJ                                                                 |
| Weight                             | 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                  | 4050821411642 |
| 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 |
|---------------------------------------|---------------|------------------|
| CB<br>DEKRA Certification B.V.        | IEC 61984     | NL-89884         |
| CSA<br>CSA Group                      | C22.2         | 2362521          |
| CSA<br>DEKRA Certification B.V.       | C22.2 No. 158 | 2362521          |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 61984      | 71-129873        |
| UR<br>Underwriters Laboratories Inc.  | UL 1059       | E45172           |

Downloads

Environmental Product Compliance

| Compliance Search                                     |                   |
|-------------------------------------------------------|-------------------|
| Environmental Product Compliance<br>2091-1104/002-000 | <a href="#">↓</a> |

Documentation

| Additional Information |            |                   |                   |
|------------------------|------------|-------------------|-------------------|
| Technical Section      | 03.04.2019 | pdf<br>2027.26 KB | <a href="#">↓</a> |

CAD/CAE-Data

| CAD data                          |                   |
|-----------------------------------|-------------------|
| 2D/3D Models<br>2091-1104/002-000 | <a href="#">↓</a> |

| CAE data                          |                   |
|-----------------------------------|-------------------|
| ZUKEN Portal<br>2091-1104/002-000 | <a href="#">↓</a> |



1 Compatible Products

1.1 System counterpart

1.1.1 Male connector/plug



**Item No.: 2091-1424**  
THT male header; 1.0 mm Ø solder pin; angled; Pin spacing 3.5 mm; 4-pole; light gray

**Item No.: 2091-1404**  
THT male header; 1.0 mm Ø solder pin; straight; Pin spacing 3.5 mm; 4-pole; light gray

1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding



**Item No.: 2091-1610**  
Coding key carrier; suitable for 3.5 mm pin spacing; orange

1.2.2 Ferrule

1.2.2.1 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> / 22 AWG; 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> / 18 AWG; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-122**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; 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.: 216-204**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-104**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored

1.2.3 Test and measurement

1.2.3.1 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>

1.2.4 Tool

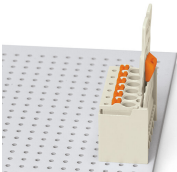
1.2.4.1 Operating tool



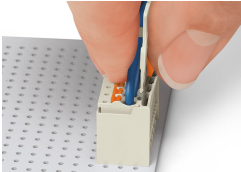
Item No.: 210-719  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

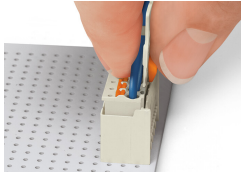
Locking system



Male header mated to a female connector with gripping plate and sliding connector release.

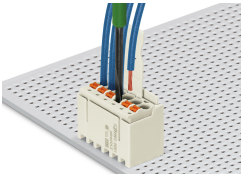


Push down sliding connector release (gripping plate) to open the locking latch.



Pull out female connector from male header.

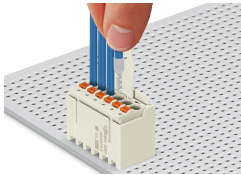
Conductor termination



Inserting fine-stranded conductor into mated female connector via push-button.



Inserting a fine-stranded conductor into an unmated female connector via push-button.



Inserting solid and ferruled conductors via push-in termination.

Marking



Pole marking via factory direct marking.

Coding



Coding a female connector (via coding key carrier and two keys for female connector, see symbol).



Testing



Testing via 1 mm Ø test pin – touch contact.