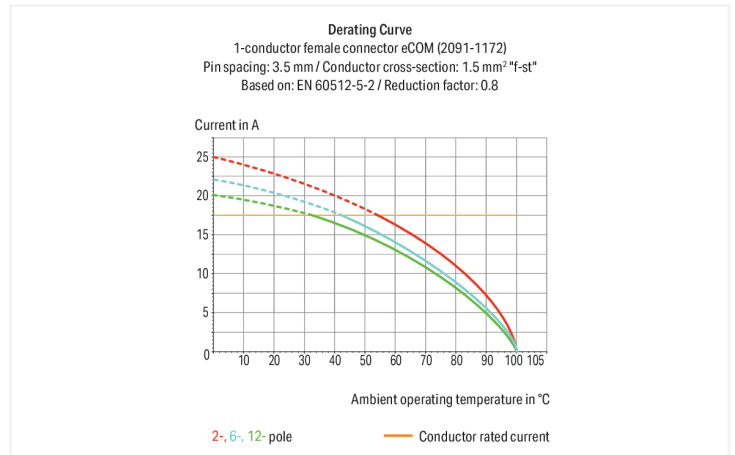


Data Sheet | Item Number: 2091-1380

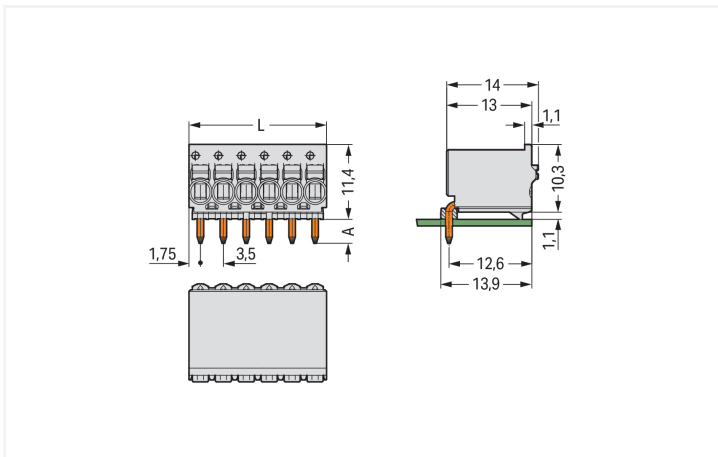
1-conductor THT female connector angled; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; 1.0 mm Ø solder pin; 1,50 mm²; light gray

<https://www.wago.com/2091-1380>



Color: ■ light gray

Similar to illustration



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-in CAGE CLAMP®

This female connector (item number 2091-1380) simplifies electrical installations. Ensure that the strip lengths are between 8 and 9 mm when connecting conductors to this female connector. This product features one conductor terminal 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 dimensions are (35 x 11.4 x 14) mm (width x height x depth). This female connector is suitable for conductor cross sections ranging from 0.2 mm² to 1.5 mm².

Tin is used for coating the contact surfaces. The pcb connector is designed for THT soldering.

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 60664-1 | | | Approvals per | UL 1059 | | |
|---------------------------------|----------------|--------|--------|---------------|---------|---|-------|
| | III | III | II | | B | C | D |
| Overvoltage category | III | III | II | Use group | B | C | D |
| Pollution degree | 3 | 2 | 2 | Rated voltage | 300 V | - | 300 V |
| Nominal voltage | 160 V | 160 V | 320 V | Rated current | 10 A | - | 10 A |
| Rated impulse withstand voltage | 2.5 kV | 2.5 kV | 2.5 kV | | | | |
| Rated current | 10 A | 10 A | 10 A | | | | |

Connection Data

| | | | |
|----------------------------|----|---|---|
| Clamping units | 10 | Connection 1 | |
| Total number of potentials | 10 | Connection technology | Push-in CAGE CLAMP® |
| Number of connection types | 1 | Actuation type | Push-button |
| Number of levels | 1 | Actuation direction 1 | Operation parallel to conductor entry |
| | | Solid conductor | 0.2 ... 1.5 mm ² / 24 ... 14 AWG |
| | | Fine-stranded conductor | 0.2 ... 1.5 mm ² / 24 ... 14 AWG |
| | | Fine-stranded conductor; with insulated ferrule | 0.25 ... 0.75 mm ² |
| | | Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm ² |
| | | Strip length | 8 ... 9 mm / 0.31 ... 0.35 inches |
| | | Conductor connection direction to PCB | 0° |
| | | Pole number | 10 |

Physical data

| | |
|--------------------------------------|------------------------|
| Pin spacing | 3.5 mm / 0.138 inches |
| Width | 35 mm / 1.378 inches |
| Height | 11.4 mm / 0.449 inches |
| Depth | 14 mm / 0.551 inches |
| Solder pin length | 3.6 mm |
| Solder pin diameter | 1 mm |
| Drilled hole diameter with tolerance | 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 | 0° |

PCB contact

| | |
|-------------|-----|
| PCB contact | THT |
|-------------|-----|

Material data

| | |
|------------------------------------|--|
| Note (material data) | Information on material specifications can be found here |
| 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 _{Cu}) |
| Contact Plating | Tin |
| Fire load | 0.019 MJ |
| Weight | 5.6 g |

Environmental requirements

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

Commercial data

| | |
|-----------------------|-------------------------|
| Product Group | 26 (picoMAX Connectors) |
| PU (SPU) | 100 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4050821162926 |
| Customs tariff number | 85366990990 |

Product Classification

| | |
|-------------|----------------------|
| UNSPSC | 39121409 |
| eCl@ss 10.0 | 27-44-04-02 |
| eCl@ss 9.0 | 27-44-04-02 |
| 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 DEKRA Certification B.V. | IEC 61984 | NL-89884 |
| CSA CSA Group | C22.2 | 2362521 |
| CSA DEKRA Certification B.V. | C22.2 No. 158 | 2362521 |
| KEMA/KEUR DEKRA Certification B.V. | EN 61984 | 71-129873 |

Downloads

Environmental Product Compliance

| Compliance Search | |
|--|-------------------|
| Environmental Product Compliance 2091-1380 | ↓ |

Documentation

| Additional Information | | | |
|------------------------|------------|-------------------|-------------------|
| Technical Section | 03.04.2019 | pdf 2027.26 KB | ↓ |

CAD/CAE-Data

| CAD data | |
|---------------------------|-------------------|
| 2D/3D Models 2091-1380 | ↓ |

| CAE data | |
|---------------------------|-------------------|
| ZUKEN Portal 2091-1380 | ↓ |

PCB Design

| | |
|--|-------------------|
| Symbol and Footprint via SamacSys 2091-1380 | ↓ |
| Symbol and Footprint via Ultra Librarian 2091-1380 | ↓ |

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 mm² / AWG 24; insulated; electro-tin plated; yellow

Item No.: 216-131

Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored

Item No.: 216-302

Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise

Item No.: 216-132

Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated



Item No.: 216-101

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

Item No.: 216-202

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

Item No.: 216-102

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

Item No.: 216-122

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored



Item No.: 216-203

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-103

Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

Item No.: 216-143

Ferrule; Sleeve for 1 mm² / 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 mm² / AWG 16; insulated; electro-tin plated; black



Item No.: 216-144

Ferrule; Sleeve for 1.5 mm² / 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 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

Item No.: 216-106

Ferrule; Sleeve for 2.5 mm² / 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 0,5mm²

1.1.3 Tool

1.1.3.1 Operating tool

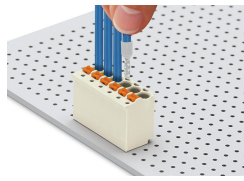
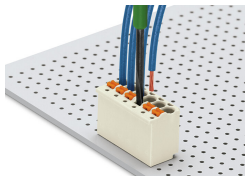


Item No.: 210-719

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.