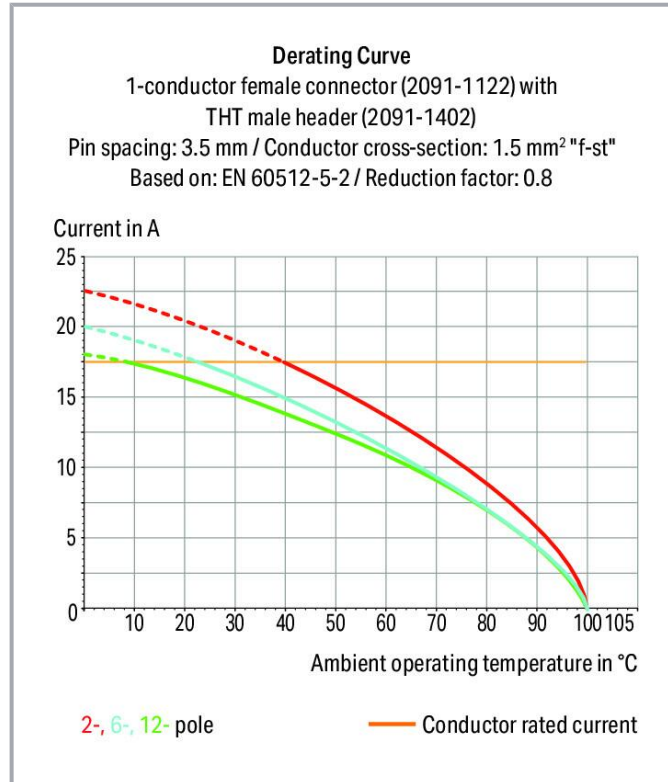
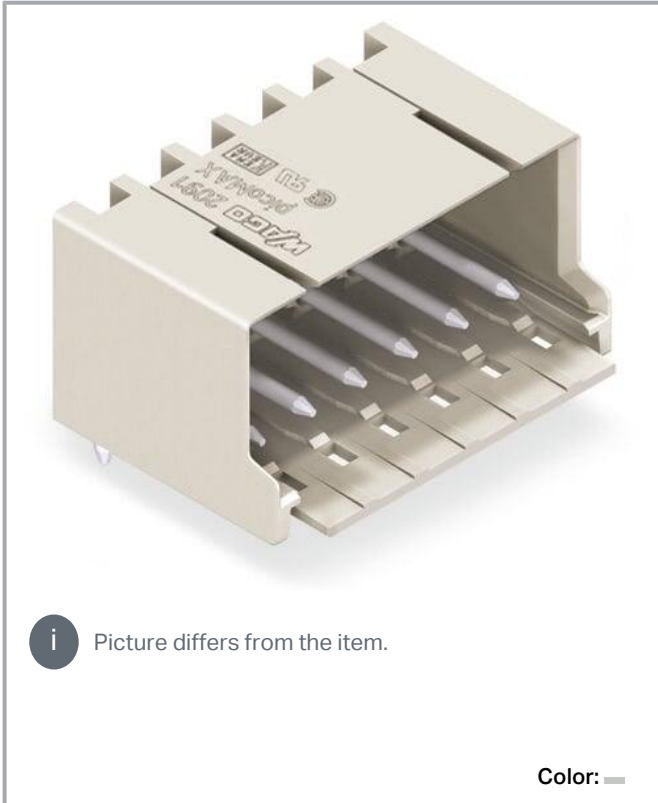


Data sheet | Item number: 2091-1428

THT male header; 1.0 mm Ø solder pin; angled; Pin spacing 3.5 mm; 8-pole;
light gray



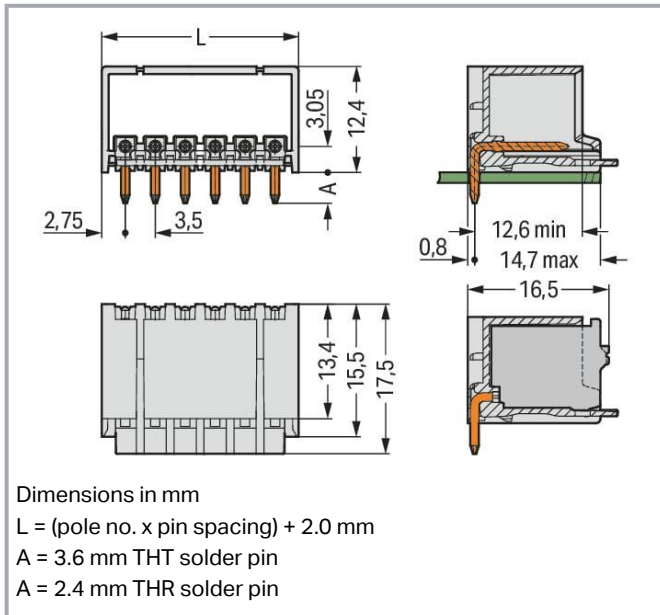
www.wago.com/2091-1428



Subject to changes. Please also observe the further product documentation!

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Item description

- Assembly of female connectors without loss of poles, allowing different functions to be divided within one male header (≥ 4 poles)
- Coding pins inserted into the header interface prevent mismatching, allowing subsequent coding in panel feedthrough applications
- The female connector is fully shrouded by the male header's housing, providing vibration resistance up to 20 g

Data

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. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Variants:

Direct marking

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

Electrical data

Ratings per IEC/EN

Ratings per

IEC/EN 60664-1

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| | |
|-------------------------------|---|
| Nominal voltage (III/3) | 160 V |
| Rated impulse voltage (III/3) | 2.5 kV |
| Rated voltage (III/2) | 160 V |
| Rated impulse voltage (III/2) | 2.5 kV |
| Nominal voltage (II/2) | 320 V |
| Rated surge voltage (II/2) | 2.5 kV |
| Rated current | 10 A |
| Legend (ratings) | (III / 2) ≙ 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

| | |
|----------------------------|---|
| Total number of potentials | 8 |
| Number of connection types | 1 |
| Number of levels | 1 |

Connection 1

| | |
|-------------|---|
| Pole number | 8 |
|-------------|---|

Physical data

| | |
|--------------------------------------|--------------------------|
| Pin spacing | 3.5 mm / 0.138 inches |
| Width | 30 mm / 1.181 inches |
| Height | 16 mm / 0.63 inches |
| Height from the surface | 12.4 mm / 0.488 inches |
| Depth | 17.5 mm / 0.689 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 | Yes |
|-----------------|-----|

Subject to changes. Please also observe the further product documentation!



| | |
|--------------------------|-----|
| Anti-rotation protection | Yes |
|--------------------------|-----|

Plug-in connection

| | |
|--------------------------------------|---------------------|
| Contact type (pluggable connector) | Male connector/plug |
| Connector (connection type) | for PCB |
| Mismating protection | No |
| Plugging without loss of pin spacing | Yes |
| Mating direction to the PCB | 0° |
| Locking of plug-in connection | Locking latch |

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 | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0 |
| Contact material | Electrolytic copper (E _{Cu}) |
| Contact plating | Tin |
| Fire load | 0.056 MJ |
| Weight | 2.8 g |

Environmental requirements

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

Commercial data

| | |
|---------------|-------------------------|
| Product Group | 26 (picoMAX Connectors) |
| eCl@ss 10.0 | 27-44-04-02 |
| eCl@ss 9.0 | 27-44-04-02 |
| ETIM 8.0 | EC002637 |
| ETIM 7.0 | EC002637 |

Subject to changes. Please also observe the further product documentation!

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| | |
|-----------------------|---------------|
| ECCN | NO DATA |
| PU (SPU) | 100 pcs |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4050821161127 |
| Customs tariff number | 85366930000 |

Environmental Product Compliance



| | |
|------------------------|-------------------------|
| RoHS Compliance Status | Compliant, No Exemption |
|------------------------|-------------------------|

Approvals / Certificates

General approvals





| Logo | Approval | Additional Approval Text | Certificate name |
|--|---------------------------------------|--------------------------|------------------------|
| | CB DEKRA Certification B.V. | IEC 61984 | NL-49736 /A1 |
|  | CSA DEKRA Certification B.V. | C22.2 No. 158 | 2362521 |
|  | CSA DEKRA Certification B.V. | C22.2 | 2362521 |
|  | KEMA/KEUR DEKRA Certification B.V. | EN 61984 | 71- 102260 REV.1 |
|  | UL Underwriters Laboratories Inc. | UL 1977 | E45171 |

Counterpart


| | | |
|---|---|--|
|  | Item no.2091-1108 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 8-pole; Gripping plate; 1,50 mm²; light gray | www.wago.com/2091-1108 |
|  | Item no.2091-1108/000-1000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 8-pole; Gripping plate; direct marking; 1,50 mm²; light gray | www.wago.com/2091-1108/000-1000 |

Subject to changes. Please also observe the further product documentation!



| | | |
|---|---|--|
|  | <p>Item no.2091-1108/000-5000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 8-pole; Gripping plate; direct marking; 1,50 mm²; light gray</p> | www.wago.com/2091-1108/000-5000 |
|  | <p>Item no.2091-1108/002-1000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 8-pole; Gripping plate sliding connector release; direct marking; 1,50 mm²; light gray</p> | www.wago.com/2091-1108/002-1000 |
|  | <p>Item no.2091-1108/002-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 8-pole; Gripping plate sliding connector release; 1,50 mm²; light gray</p> | www.wago.com/2091-1108/002-000 |
|  | <p>Item no.2091-1128 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 8-pole; 1,50 mm²; light gray</p> | www.wago.com/2091-1128 |

Optional accessories

| | | |
|--|--|--|
| Coding | | |
| Coding | | |
|  | <p>Item no.: 2091-1610 Coding key carrier; suitable for 3.5 mm pin spacing; orange</p> | www.wago.com/2091-1610 |

Downloads

Documentation

Additional Information

| | | | |
|------------------------|------------|--------|----------|
| Technical Section | 2019 Apr 3 | pdf | Download |
| Technical explanations | | 2.1 MB | |

CAD/CAE-Data

CAD data

| | | |
|------------------------|-----|----------|
| 2D/3D Models 2091-1428 | URL | Download |
|------------------------|-----|----------|

PCB Design

| | | |
|--|-----|----------|
| Symbol and Footprint via Ultra Librarian 2091-1428 | URL | Download |
|--|-----|----------|

CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

Supported formats:

Subject to changes. Please also observe the further product documentation!



- Accel EDA 14 & 15
- Altair
- Altium 6 to current version
- Autodesk Fusion 360
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics
- BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design
- Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000
- Zuken eCADSTAR 2020 and 2021Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

Symbol and Footprint via SamacSys 2091-1428

[URL](#)

[Download](#)

CAx data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

Supported formats:

- 3D (stp)
- Altium
- CADSTAR
- Capture

—
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- CircuitStudio
- CR-5000
- CR-8000
- DEHDL
- DesignSpark PCB
- DesignSpark PCB PRO
- DipTrace
- EAGLE
- Easy-PC
- EasyEDA
- eCADSTAR
- KiCad
- OrCAD_Allegro16
- PADS
- Proteus
- Pulsonix
- Quadcept
- SOLIDWORKS PCB
- TARGET 3001!
- xDX Designer
- Xpedition

PCB Component Libraries (EDA), PCB CAD Library SamacSys Electronic Component Search Engine

CAE data

| | | |
|------------------------|---------------------|--------------------------|
| ZUKEN Portal 2091-1428 | URL | Download |
|------------------------|---------------------|--------------------------|

Asset Administration Shell

| | | |
|--------------------------------------|---------------------|--------------------------|
| Asset Administration Shell 2091-1428 | URL | Download |
|--------------------------------------|---------------------|--------------------------|

Environmental Product Compliance

Compliance Search

| | | |
|--|---------------------|--------------------------|
| Environmental Product Compliance 2091-1428 | URL | Download |
|--|---------------------|--------------------------|

THT male header; 1.0 mm Ø solder pin; angled; Pin spacing 3.5 mm; 8-pole; light gray

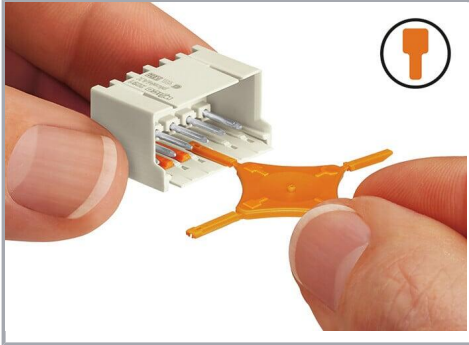
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Installation Notes

Coding



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

Subject to changes. Please also observe the further product documentation!