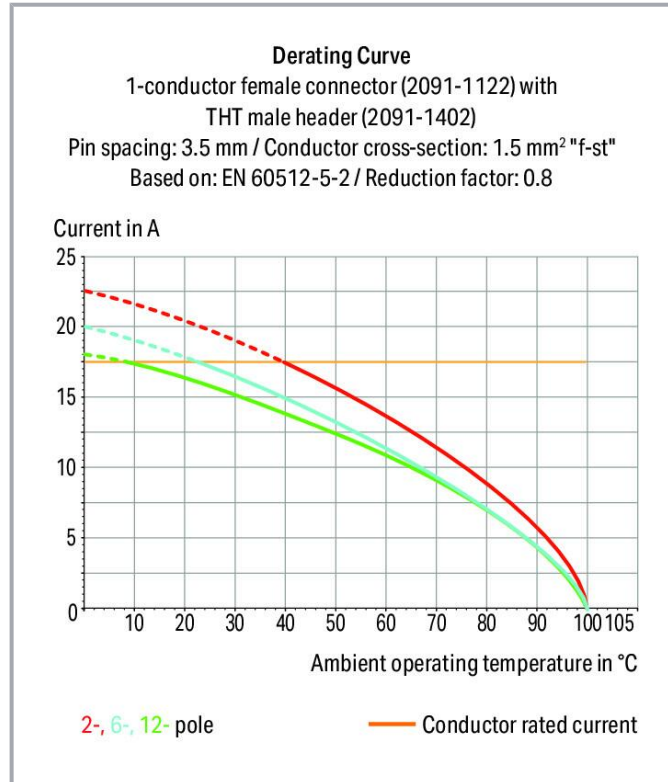
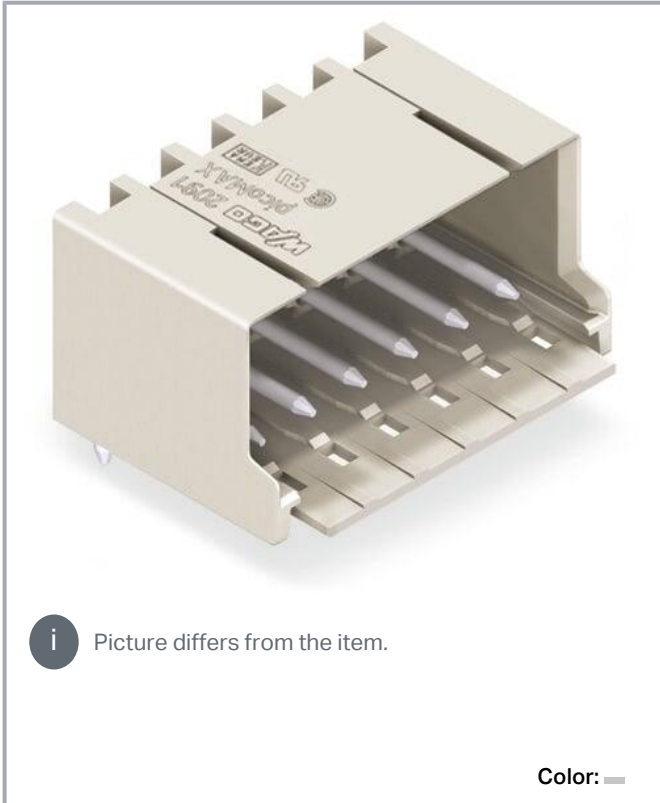


**Data sheet | Item number: 2091-1423/200-000**

THR male header; 1.0 mm Ø solder pin; angled; Pin spacing 3.5 mm; 3-pole;  
light gray



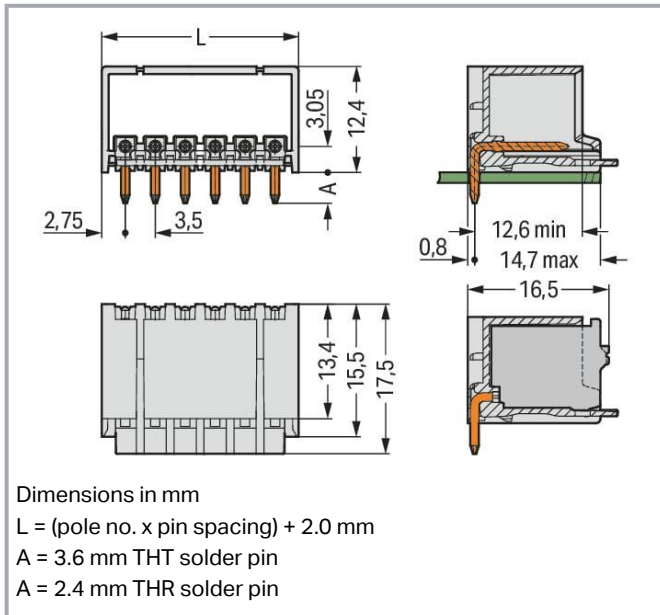
[www.wago.com/2091-1423/200-000](http://www.wago.com/2091-1423/200-000)



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

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We are always happy to take your call at +49 (571) 887-44222.



## Item description

- Assembly of female connectors without loss of poles, allowing different functions to be divided within one male header ( $\geq 4$  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

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

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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) $\triangleq$ 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

|                            |   |
|----------------------------|---|
| Total number of potentials | 3 |
| Number of connection types | 1 |
| Number of levels           | 1 |

### Connection 1

|             |   |
|-------------|---|
| Pole number | 3 |
|-------------|---|

### Physical data

|                                    |                          |
|------------------------------------|--------------------------|
| Pin spacing                        | 3.5 mm / 0.138 inches    |
| Width                              | 12.5 mm / 0.492 inches   |
| Height                             | 14.8 mm / 0.583 inches   |
| Height from the surface            | 12.4 mm / 0.488 inches   |
| Depth                              | 17.5 mm / 0.689 inches   |
| Solder pin length                  | 2.4 mm                   |
| Solder pin diameter                | 1 mm                     |
| Plated through-hole diameter (THR) | 1.2 <sup>(+0.1)</sup> 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 | THR |
|-------------|-----|

### 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 <sub>Cu</sub> ) |
| Contact plating             | Tin                                    |
| Fire load                   | 0.026 MJ                               |
| Weight                      | 1.2 g                                  |
| MSL per J-STD 020D          | 1                                      |

### Environmental requirements

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

### Commercial data

|             |             |
|-------------|-------------|
| 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!





|                       |               |
|-----------------------|---------------|
| ECCN                  | NO DATA       |
| PU (SPU)              | 200 pcs       |
| Packaging type        | box           |
| Country of origin     | DE            |
| GTIN                  | 4050821396222 |
| 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<br>DEKRA Certification B.V.        | IEC 61984                | NL-49736<br>/A1        |
|   | CSA<br>DEKRA Certification B.V.       | C22.2                    | 2362521                |
|  | KEMA/KEUR<br>DEKRA Certification B.V. | EN 61984                 | 71-<br>102260<br>REV.1 |
|  | UL<br>Underwriters Laboratories Inc.  | UL 1977                  | E45171                 |
|  | UR<br>Underwriters Laboratories Inc.  | UL 1059                  | E45172                 |

## Counterpart

|   |  |  |
|---|--|--|
|  | <b>Item no.2091-1123</b><br>1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 3-pole;<br>1,50 mm <sup>2</sup> ; light gray | <a href="http://www.wago.com/2091-1123">www.wago.com/2091-1123</a> |
|---|--|--|


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



## Optional accessories

### Coding

#### Coding

|   |   |  |
|---|---|--|
|  | <b>Item no.: 2091-1610</b><br>Coding key carrier; suitable for 3.5 mm pin spacing; orange | <a href="http://www.wago.com/2091-1610">www.wago.com/2091-1610</a> |
|---|---|--|

## Downloads

### Documentation

#### Additional Information

|                        |            |                 |          |
|------------------------|------------|-----------------|----------|
| Technical Section      | 2019 Apr 3 | pdf<br>2.1 MB   | Download |
| Technical explanations |            |                 |          |
| THR Soldering Process  |            | pdf<br>556.8 kB | Download |

## CAD/CAE-Data

### CAD data

|                                |     |          |
|--------------------------------|-----|----------|
| 2D/3D Models 2091-1423/200-000 | URL | Download |
|--------------------------------|-----|----------|

### CAE data

|                                |     |          |
|--------------------------------|-----|----------|
| ZUKEN Portal 2091-1423/200-000 | URL | Download |
|--------------------------------|-----|----------|

### Asset Administration Shell

|  |     |          |
|--|-----|----------|
| Asset Administration Shell 2091-1423/200-000 | URL | Download |
|--|-----|----------|

### PCB Design

|  |     |          |
|--|-----|----------|
| Symbol and Footprint via Ultra Librarian 2091-1423/200-000 | 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:

- Accel EDA 14 & 15
- Altair
- Altium 6 to current version
- Autodesk Fusion 360

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



- 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

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Symbol and Footprint via SamacSys 2091-1423/200-000

[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
- CircuitStudio
- CR-5000
- CR-8000
- DEHDL

—  
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- 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

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## Environmental Product Compliance

### Compliance Search

|  |     |          |
|--|-----|----------|
| Environmental Product Compliance 2091-1423/200-000                                   | URL | Download |
| THR male header; 1.0 mm Ø solder pin; angled; Pin spacing 3.5 mm; 3-pole; light gray |     |          |

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## Installation Notes

### Coding

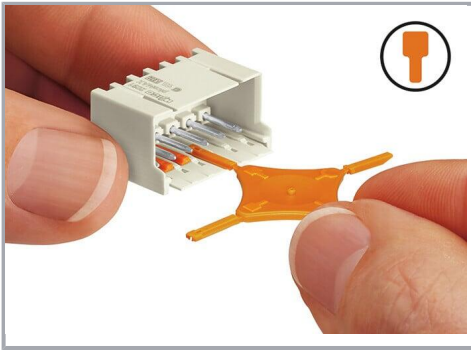
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Coding a male header (via coding key carrier and two keys for male header, see symbol).

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