

**Data sheet | Item number: 2091-1408**

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



[www.wago.com/2091-1408](http://www.wago.com/2091-1408)



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

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Dimensions in mm

$L = (\text{pole no.} \times \text{pin spacing}) + 2.0 \text{ mm}$

A = 3.6 mm THT solder pin

A = 2.4 mm THR solder pin

### 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

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## 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
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

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## Connection 1

Pole number	8
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## Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	30 mm / 1.181 inches
Height	21.1 mm / 0.831 inches
Height from the surface	17.5 mm / 0.689 inches
Depth	12.4 mm / 0.488 inches
Solder pin length	3.6 mm
Solder pin diameter	1 mm
Drilled hole diameter with tolerance	1.2 <sup>(+0.1)</sup> mm

## Mechanical Data

Variable coding	Yes
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	90 °
Locking of plug-in connection	Locking latch

## PCB contact

PCB contact	THT
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## Material Data

Note (material data)	Information on material specifications can be found here
Color	light gray
Material group	I
Insulation material	Polyphthalamide (PPA GF)

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Flammability class per UL94	V0
Contact material	Electrolytic copper (E <sub>Cu</sub> )
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
PU (SPU)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821161042
Customs tariff number	85366930000

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

#### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>CB</b> DEKRA Certification B.V.	IEC 61984	NL-49736 /A1
	<b>CSA</b> DEKRA Certification B.V.	C22.2 No. 158	2362521
	<b>CSA</b> DEKRA Certification B.V.	C22.2	2362521
	<b>KEMA/KEUR</b> DEKRA Certification B.V.	EN 61984	71-102260 REV.1

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UL  
Underwriters Laboratories Inc.

UL 1977

E45171

## Counterpart

<b>Item no.2091-1128</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 8-pole; 1,50 mm <sup>2</sup> ; light gray	<a href="http://www.wago.com/2091-1128">www.wago.com/2091-1128</a>
<b>Item no.2091-1108</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 8-pole; Gripping plate; 1,50 mm <sup>2</sup> ; light gray	<a href="http://www.wago.com/2091-1108">www.wago.com/2091-1108</a>
<b>Item no.2091-1108/000-1000</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 8-pole; Gripping plate; direct marking; 1,50 mm <sup>2</sup> ; light gray	<a href="http://www.wago.com/2091-1108/000-1000">www.wago.com/2091-1108/000-1000</a>
<b>Item no.2091-1108/000-5000</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 8-pole; Gripping plate; direct marking; 1,50 mm <sup>2</sup> ; light gray	<a href="http://www.wago.com/2091-1108/000-5000">www.wago.com/2091-1108/000-5000</a>
<b>Item no.2091-1108/002-000</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 8-pole; Gripping plate sliding connector release; 1,50 mm <sup>2</sup> ; light gray	<a href="http://www.wago.com/2091-1108/002-000">www.wago.com/2091-1108/002-000</a>
<b>Item no.2091-1108/002-1000</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 8-pole; Gripping plate sliding connector release; direct marking; 1,50 mm <sup>2</sup> ; light gray	<a href="http://www.wago.com/2091-1108/002-1000">www.wago.com/2091-1108/002-1000</a>

## Optional accessories

### Coding

Coding

<b>Item no.: 2091-1610</b> 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>
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## Downloads

### Documentation

#### Additional Information

2019 年4月3日      pdf      Download  
2.0 MB

## CAD/CAE-Data

### CAD data

2D/3D Models 2091-1408      URL      Download

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## PCB Design

Symbol and Footprint 2091-1408

[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
- Altium 6 to current version
- 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

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

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## CAE data

ZUKEN Portal 2091-1408

[URL](#)

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 2091-1408

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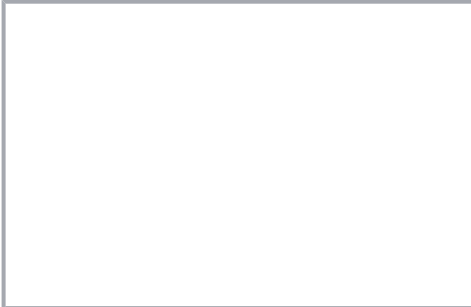
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## Installation Notes

### Coding



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

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