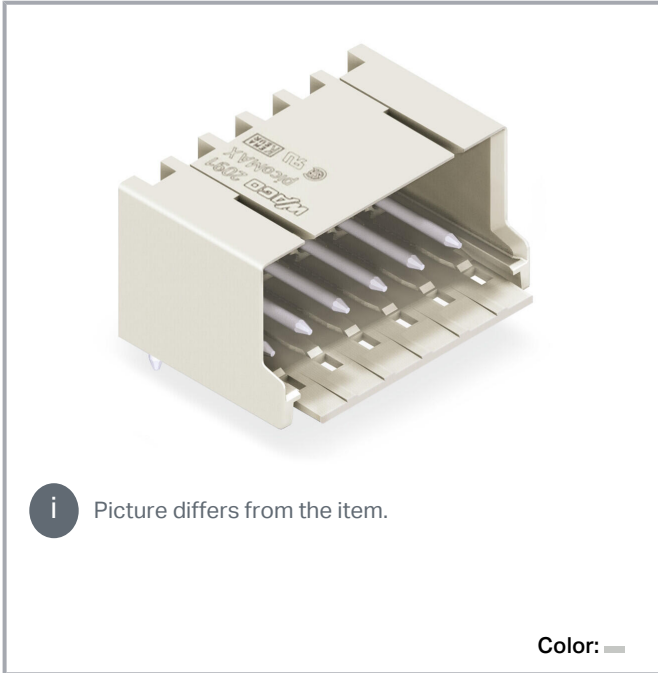


**Data sheet | Item number: 2091-1428**

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



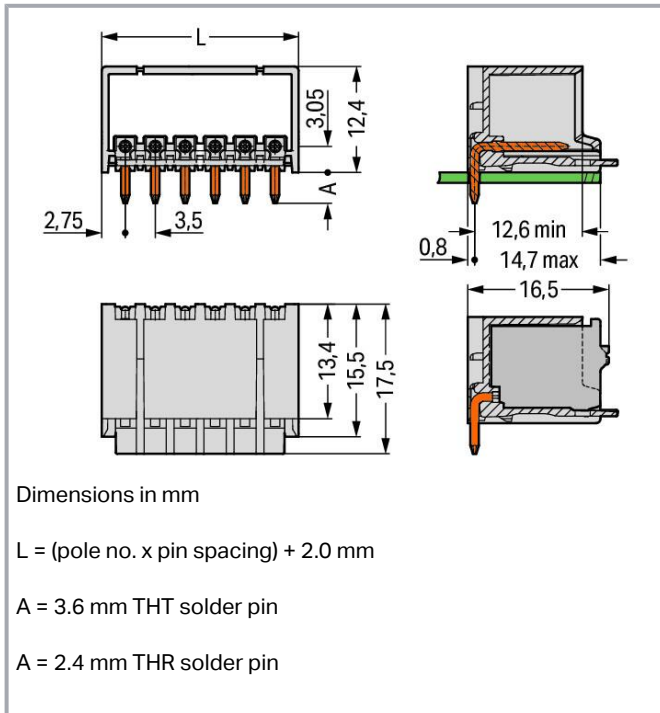
[www.wago.com/2091-1428](http://www.wago.com/2091-1428)



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 ( $\geq 4$  poles)
- Coding pins inserted into the header interface prevent mismating, 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

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



### 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) $\hat{=}$ Overvoltage category III / Pollution degree 2

### Ratings per UL 1059

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 <sup>(+0.1)</sup> mm

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## 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	0°
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)
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

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





ETIM 8.0	EC002637
ETIM 7.0	EC002637
PU (SPU)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821161127
Customs tariff number	85366990990

## 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
	<b>UL</b> Underwriters Laboratories Inc.	UL 1977	E45171

## Counterpart

	<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>	<a href="http://www.wago.com/2091-1108">www.wago.com/2091-1108</a>

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	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	1108/000-1000
	<b>Item no.2091-1108/000-5000</b> 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	<a href="http://www.wago.com/2091-1108/000-5000">www.wago.com/2091-1108/000-5000</a>
	<b>Item no.2091-1108/002-1000</b> 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	<a href="http://www.wago.com/2091-1108/002-1000">www.wago.com/2091-1108/002-1000</a>
	<b>Item no.2091-1108/002-000</b> 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	<a href="http://www.wago.com/2091-1108/002-000">www.wago.com/2091-1108/002-000</a>
	<b>Item no.2091-1128</b> 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	<a href="http://www.wago.com/2091-1128">www.wago.com/2091-1128</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

Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.0 MB	

### CAD/CAE-Data

#### CAD data

2D/3D Models 2091-1428	URL	Download
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#### PCB Design

Symbol and Footprint 2091-1428	URL	Download
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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
- 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 2091-1428	<a href="#">URL</a>	<a href="#">Download</a>
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### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 2091-1428	<a href="#">URL</a>	<a href="#">Download</a>
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

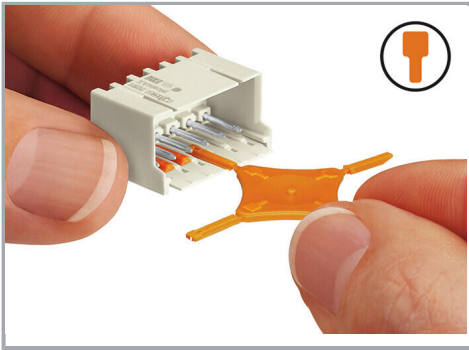
#### Coding

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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!