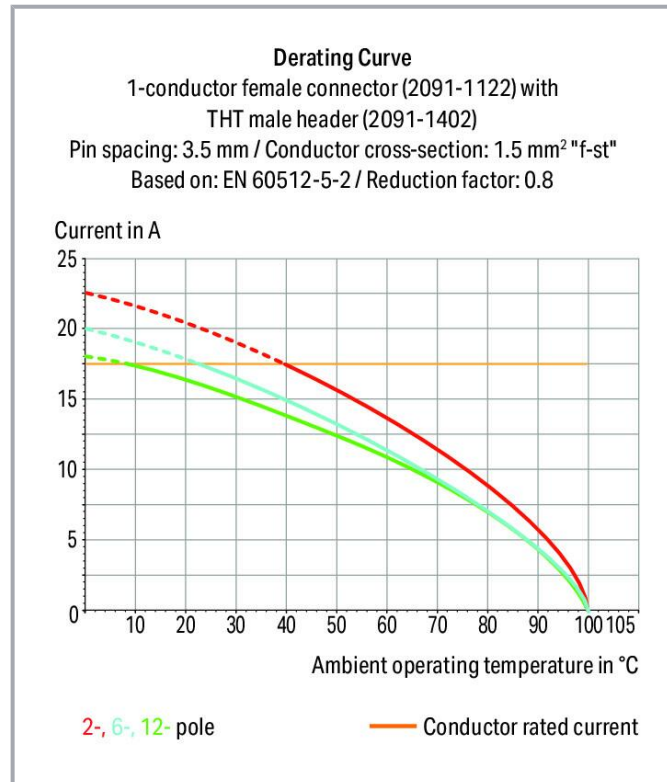
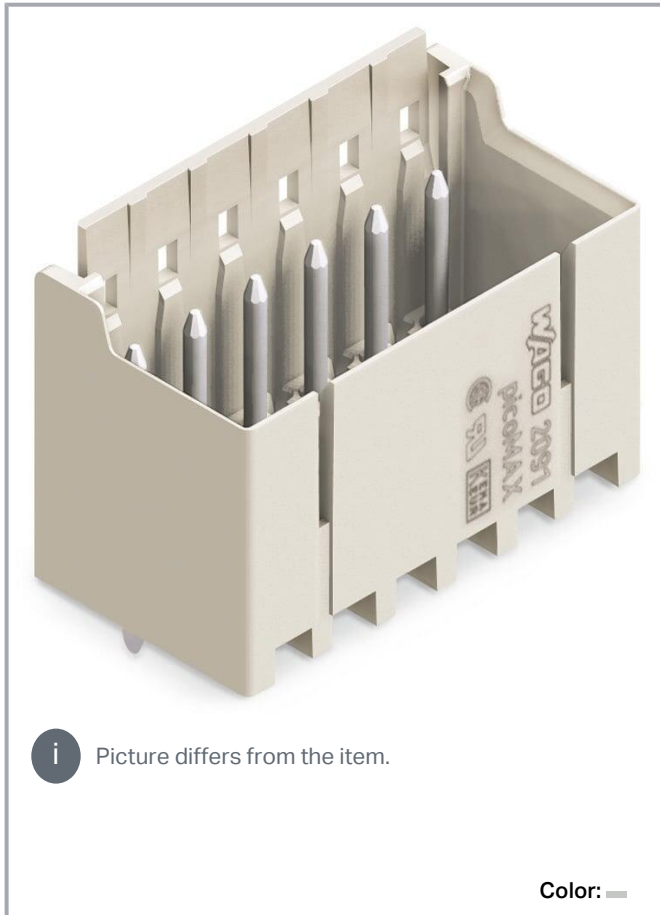


Data sheet | Item number: 2091-1412/200-000

THR male header; 1.0 mm Ø solder pin; straight; Pin spacing 3.5 mm; 12-pole; light gray

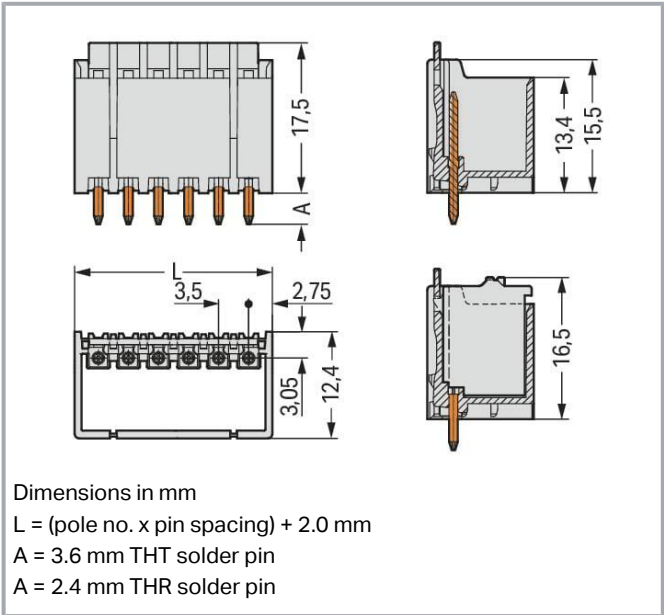
www.wago.com/2091-1412/200-000



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 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

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	12
Number of connection types	1
Number of levels	1

Connection 1

Pole number	12
-------------	----

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	44 mm / 1.732 inches
Height	19.9 mm / 0.783 inches
Height from the surface	17.5 mm / 0.689 inches
Depth	12.4 mm / 0.488 inches
Solder pin length	2.4 mm
Solder pin diameter	1 mm
Plated through-hole diameter (THR)	1.2 ^(+0.1) mm

Mechanical Data

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



Anti-rotation protection	Yes
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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	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 _{Cu})
Contact plating	Tin
Fire load	0.082 MJ
Weight	3.8 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)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821396161
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
	CB DEKRA Certification B.V.	IEC 61984	NL-49736 /A1
	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
	UR Underwriters Laboratories Inc.	UL 1059	E45172

Counterpart



Item no. 2091-1132

1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 12-pole; 1,50 mm²; light gray

www.wago.com/2091-1132

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

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Optional accessories

Coding

Coding



Item no.: 2091-1610

Coding key carrier; suitable for 3.5 mm pin spacing; orange

www.wago.com/2091-1610

Downloads

Documentation

Additional Information

Technical Section	2019 年4月3日	pdf	Download
Technical explanations		2.1 MB	
THR Soldering Process		pdf	Download
		556.8 kB	

CAD/CAE-Data

CAD data

2D/3D Models 2091-1412/200-000	URL	Download
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CAE data

ZUKEN Portal 2091-1412/200-000	URL	Download
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Asset Administration Shell

Asset Administration Shell 2091-1412/200-000	URL	Download
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PCB Design

Symbol and Footprint via SamacSys 2091-1412/200-000	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:

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

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



- 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

Symbol and Footprint via Ultra Librarian 2091-1412/200-000

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
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad

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

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- 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

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2091-1412/200-000	URL	Download
THR male header; 1.0 mm Ø solder pin; straight; Pin spacing 3.5 mm; 12-pole; light gray		

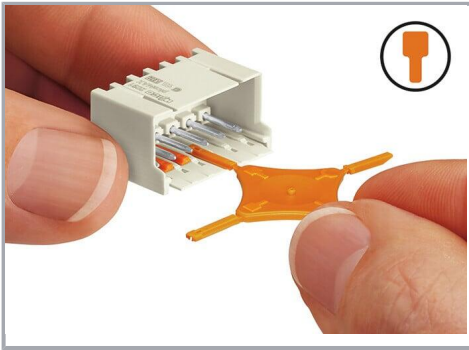
Installation Notes

Coding

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

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

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