

Data sheet | Item number: 2091-1412

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

www.wago.com/2091-1412



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

WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



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 (≥ 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

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

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

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



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) \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

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

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

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



Connection 1

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

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	44 mm / 1.732 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 ^(+0.1) 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
-------------	-----

Material Data

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

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



Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{Cu})
Contact plating	Tin
Fire load	0.082 MJ
Weight	3.9 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	4050821161066
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

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

UL
Underwriters Laboratories Inc.

UL 1977

E45171

Counterpart

Item no.2091-1132 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm ² ; Pin spacing 3.5 mm; 12-pole; 1,50 mm ² ; light gray	www.wago.com/2091-1132
Item no.2091-1112/000-1000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm ² ; Pin spacing 3.5 mm; 12-pole; Gripping plate; direct marking; 1,50 mm ² ; light gray	www.wago.com/2091-1112/000-1000
Item no.2091-1112/000-5000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm ² ; Pin spacing 3.5 mm; 12-pole; Gripping plate; direct marking; 1,50 mm ² ; light gray	www.wago.com/2091-1112/000-5000
Item no.2091-1112 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm ² ; Pin spacing 3.5 mm; 12-pole; Gripping plate; 1,50 mm ² ; light gray	www.wago.com/2091-1112
Item no.2091-1112/002-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm ² ; Pin spacing 3.5 mm; 12-pole; Gripping plate sliding connector release; 1,50 mm ² ; light gray	www.wago.com/2091-1112/002-000
Item no.2091-1112/002-1000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm ² ; Pin spacing 3.5 mm; 12-pole; Gripping plate sliding connector release; direct marking; 1,50 mm ² ; light gray	www.wago.com/2091-1112/002-1000

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

2019 年4月3日 pdf Download
2.0 MB

CAD/CAE-Data

CAD data

2D/3D Models 2091-1412 URL Download

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

WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



PCB Design

Symbol and Footprint 2091-1412

[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

CAE data

ZUKEN Portal 2091-1412

[URL](#)

[Download](#)

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2091-1412

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

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

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

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

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!