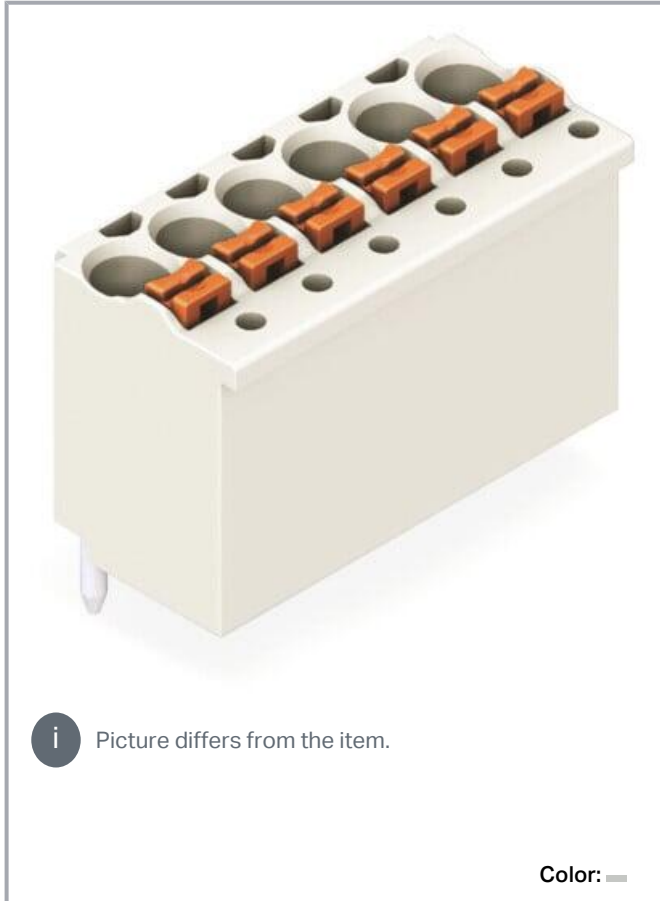


Data sheet | Item number: 2091-1180/200-000

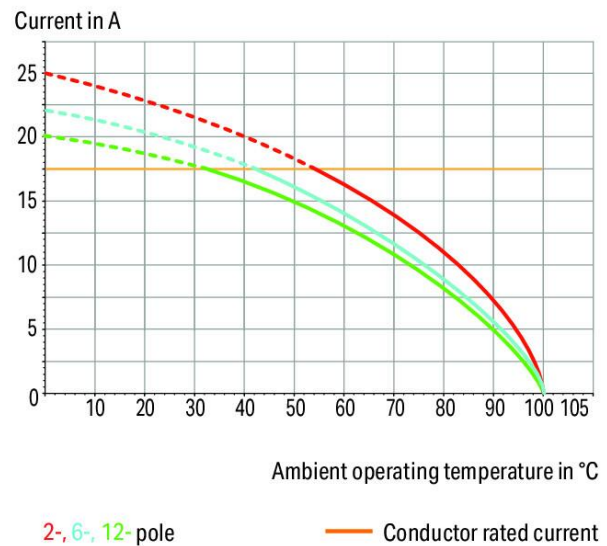
1-conductor THR female connector straight; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; 1.0 mm Ø solder pin; 1,50 mm²; light gray

www.wago.com/2091-1180/200-000



Derating Curve

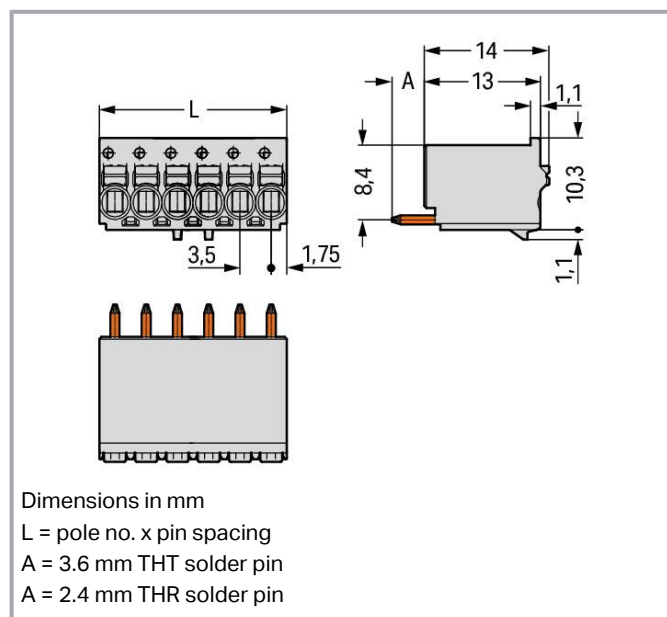
1-conductor female connector eCOM (2091-1172)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



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

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Item description

- Universal connection for all conductor types
- Simple, push-in termination of solid and ferruled conductors
- Easy-to-use design does not require specialty tools
- Ability to wire while mated or unmated
- Integrated test ports for testing parallel to conductor entry
- Factory-installed, straight or angled solder pins allow horizontal or vertical mounting to the PCB

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.

Electrical data

Ratings per IEC/EN

Ratings per

IEC/EN 60664-1

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



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

Connection points	10
Total number of potentials	10
Number of connection types	1
Number of levels	1

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-button
Actuation direction 1	Operation parallel to conductor entry
Solid conductor	0.2 ... 1.5 mm ² / 24 ... 14 AWG
Fine-stranded conductor	0.2 ... 1.5 mm ² / 24 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 0.75 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1.5 mm ²
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Conductor connection direction to PCB	90 °
Pole number	10

Physical data

Pin spacing	3.5 mm / 0.138 inches
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Width	35 mm / 1.378 inches
Height	14 mm / 0.551 inches
Depth	11.4 mm / 0.449 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	No
Anti-rotation protection	Yes

Plug-in connection

Contact type (pluggable connector)	Female connector/socket
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	none

PCB contact

PCB contact	THR
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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
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Electrolytic copper (E _{Cu})
Contact plating	Tin
Fire load	0.015 MJ
Weight	5.3 g
MSL per J-STD 020D	1

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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
ECCN	NO DATA
PU (SPU)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821395911
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
	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	UL 1059	E45172

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



Underwriters Laboratories Inc.

Optional accessories

Coding

Coding



Item no.: 2091-1610

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

www.wago.com/2091-1610

Testing and measuring

Testing accessories



Item no.: 735-500

WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm²

www.wago.com/735-500

Tool

Operating tool



Item no.: 210-719

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

www.wago.com/210-719

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 2091-1180/200-000	URL	Download
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CAE data

ZUKEN Portal 2091-1180/200-000	URL	Download
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Asset Administration Shell

Asset Administration Shell 2091-1180/200-000	URL	Download
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PCB Design

Symbol and Footprint via Ultra Librarian 2091-1180/200-000	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:

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

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

Symbol and Footprint via SamacSys 2091-1180/200-000

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
- 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 2091-1180/200-000

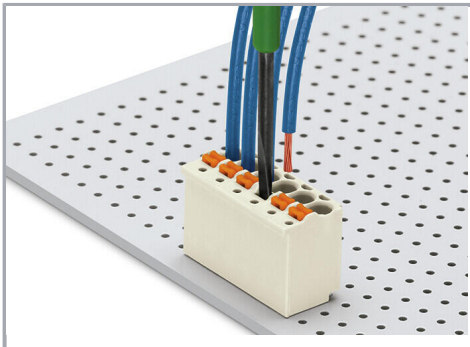
URL

Download

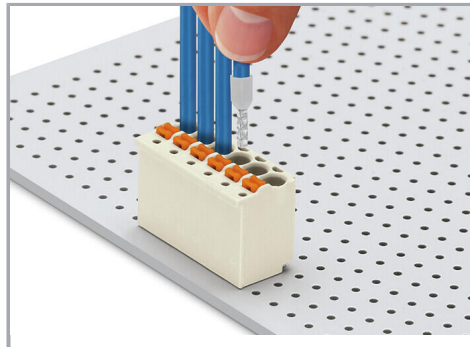
1-conductor THR female connector straight; push-button; Push-in CAGE CLAMP®;
1.5 mm²; Pin spacing 3.5 mm; 10-pole; 1.0 mm Ø solder pin; 1,50 mm²; light gray

Installation Notes

Conductor termination



Terminating fine-stranded conductors and removing all conductor types via push-buttons.



Solid and ferruled conductors are terminated by simply pushing them into unit.

Marking



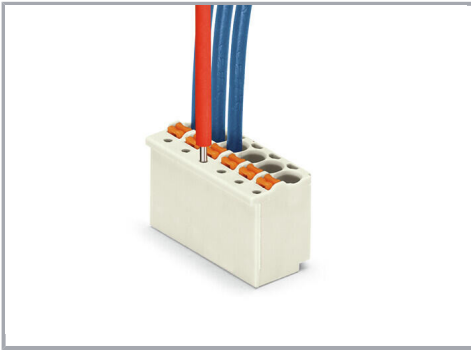
Pole marking via direct marking perpendicular to conductor entry.



Pole marking via factory direct marking.

Testing

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



Testing via 1 mm Ø test pin – touch contact.

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

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