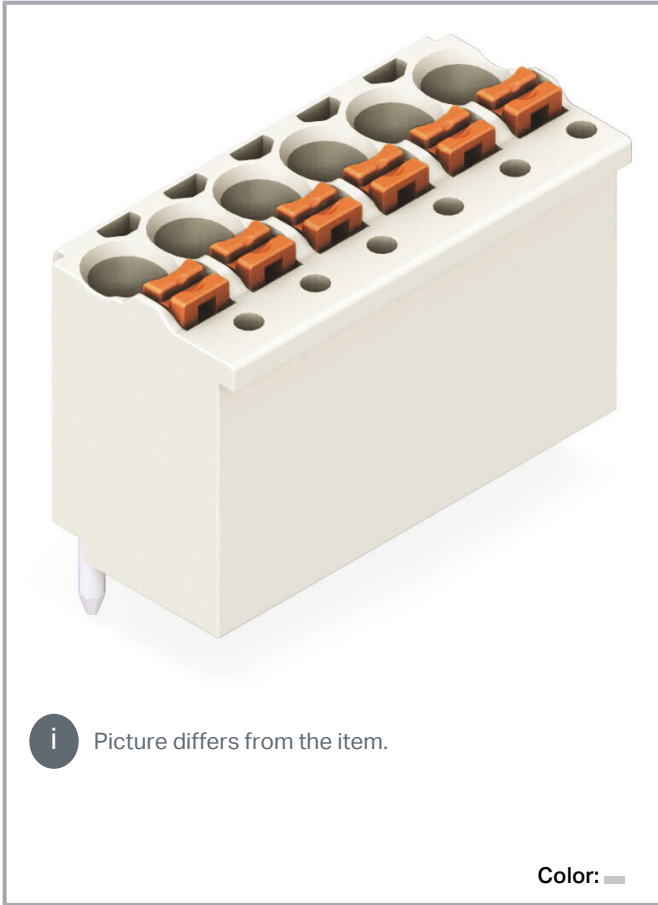


**Data sheet | Item number: 2091-1178/200-000**

1-conductor THR female connector straight; push-button; Push-in CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 8-pole; 1.0 mm Ø solder pin; 1,50 mm<sup>2</sup>; light gray



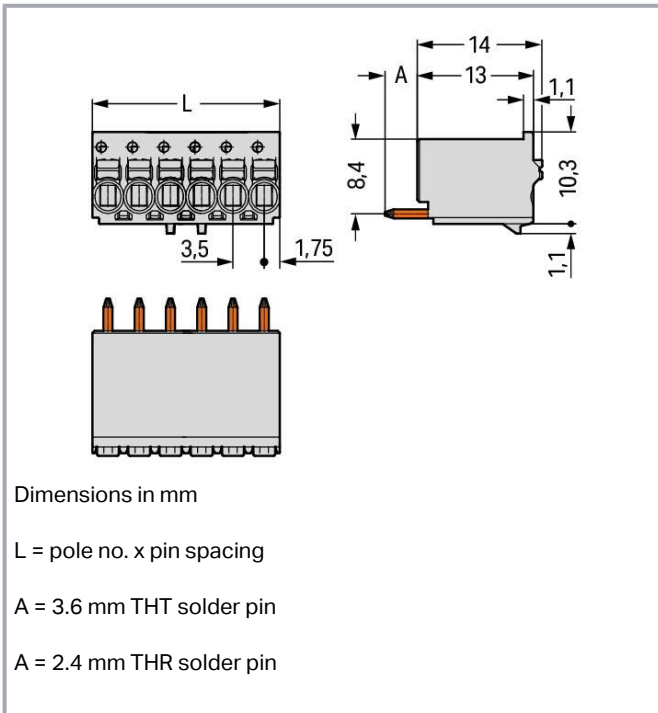
[www.wago.com/2091-1178/200-000](http://www.wago.com/2091-1178/200-000)



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

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) ≙ 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

Connection points	8
Total number of potentials	8
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 <sup>2</sup> / 24 ... 14 AWG
Fine-stranded conductor	0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 0.75 mm <sup>2</sup>
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1.5 mm <sup>2</sup>
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Conductor connection direction to PCB	90 °
Pole number	8

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



## Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	28 mm / 1.102 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 <sup>(+0.1)</sup> 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
-------------	-----

## 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 <sub>Cu</sub> )
Contact plating	Tin
Fire load	0.012 MJ

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

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Weight	4.2 g
MSL gemäß 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
PU (SPU)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821395904
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	2362521
	<b>KEMA/KEUR</b> DEKRA Certification B.V.	EN 61984	71-102260 REV.1
	<b>UL</b> Underwriters Laboratories Inc.	UL 1977	E45171

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



UR  
Underwriters Laboratories Inc.

UL 1059

E45172

## Optional accessories

### 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](http://www.wago.com/210-719)

### Coding

Coding



**Item no.: 2091-1610**  
Coding key carrier; suitable for 3.5 mm pin spacing; orange

[www.wago.com/2091-1610](http://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 0,5mm<sup>2</sup>

[www.wago.com/735-500](http://www.wago.com/735-500)

## Downloads

### Documentation

#### Additional Information

Technical Section	2019 Apr 3	pdf 2.0 MB	Download
Technical explanations			
THR Soldering Process		pdf 402.7 kB	Download

### CAD/CAE-Data

#### CAD data

2D/3D Models 2091-1178/200-000	URL	Download
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#### CAE data

ZUKEN Portal 2091-1178/200-000	URL	Download
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Subject to changes. Please also observe the further product documentation!

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 2091-1178/200-000

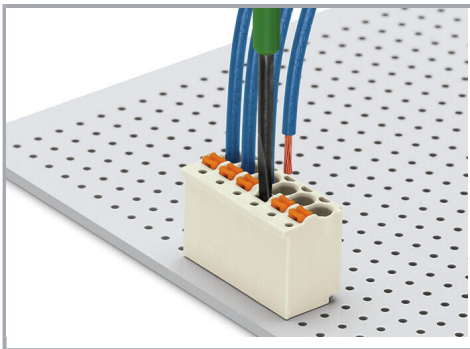
[URL](#)

[Download](#)

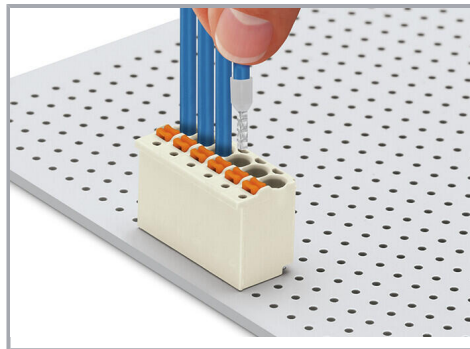
1-conductor THR female connector straight; push-button; Push-in CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 8-pole; 1.0 mm Ø solder pin; 1,50 mm<sup>2</sup>; light gray

## 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



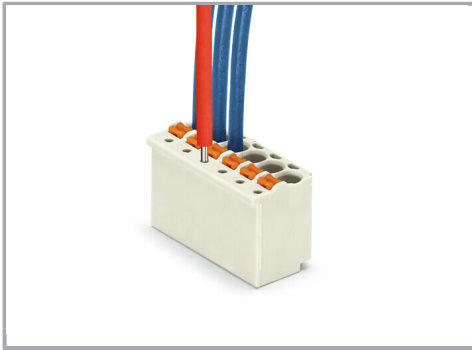
Pole marking via direct marking perpendicular to conductor entry.



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!