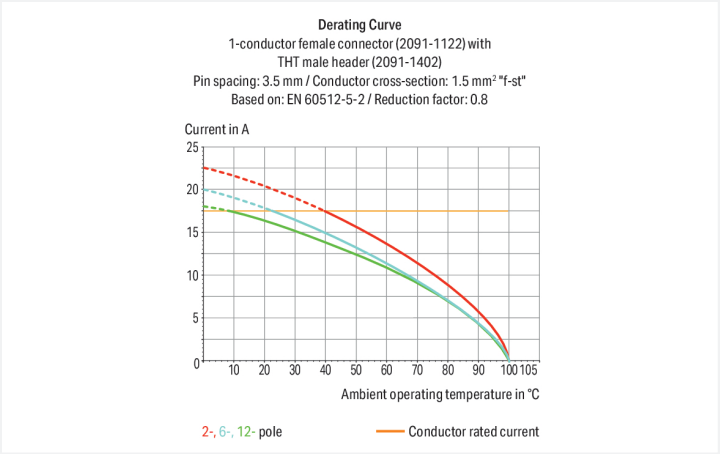
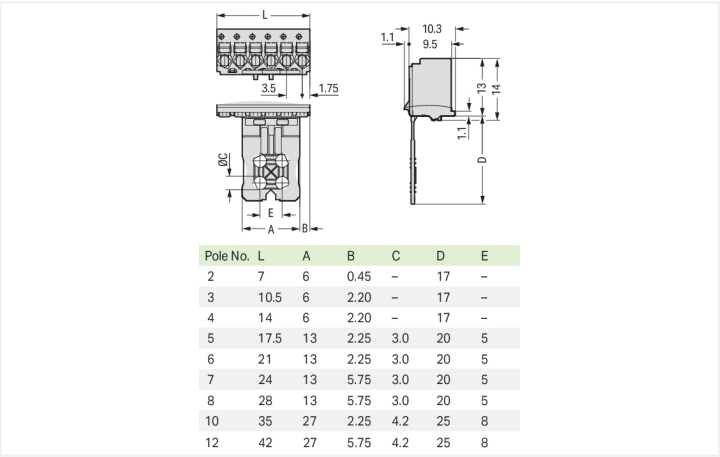
Data Sheet | Item Number: 2091-1112

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

https://www.wago.com/2091-1112



Color: light gray



Pole No.	L	A	B	C	D	E
2	7	6	0.45	–	17	–
3	10.5	6	2.20	–	17	–
4	14	6	2.20	–	17	–
5	17.5	13	2.25	3.0	20	5
6	21	13	2.25	3.0	20	5
7	24	13	5.75	3.0	20	5
8	28	13	5.75	3.0	20	5
10	35	27	2.25	4.2	25	8
12	42	27	5.75	4.2	25	8

Dimensions in mm

Female connector, 2091 Series, with 3.5 mm pin spacing

This female connector (item number 2091-1112) simplifies electrical installations. Ensure that the strip lengths are between 8 and 9 mm when connecting conductors to this female connector. This product incorporates one conductor terminal and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® technology provides a universal connection solution for any type of conductor. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. The dimensions are (42 x 38 x 11.4) mm (width x height x depth). This female connector is suitable for conductor cross sections ranging from 0.2 mm² to 1.5 mm².

Tin is used for coating the contact surfaces.

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.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 un-mated.
Safety information 2	The use of ferrules is recommended for applications with higher requirements. To prevent excessive force on the clamping point, effective cable strain relief must be used.
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 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	160 V	160 V	320 V
Rated impulse withstand voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data

Clamping units	12
Total number of potentials	12
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 mm² / 24 … 14 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.75 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 … 1.5 mm²
Strip length	8 … 9 mm / 0.31 … 0.35 inches
Pole number	12

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	42 mm / 1.654 inches
Height	38 mm / 1.496 inches
Depth	11.4 mm / 0.449 inches

Mechanical data

Variable coding	Yes
Design	with gripping plate
Anti-rotation protection	Yes

Continued on next page

Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	No
Plugging without loss of pin spacing	Yes

Material data

Note (material data)	Information on material specifications can be found here
Color	light gray
Material group	I
Insulation material (main housing)	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	0.033 MJ
Weight	6.1 g

Environmental requirements

Limit temperature range	-60 … +100 °C
Processing temperature	-35 … +60 °C

Commercial data

Product Group	26 (picoMAX Connectors)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821160748
Customs tariff number	85366990990

Product Classification

UNSPSC	39121409
eCl@ss 10.0	27-14-11-06
eCl@ss 9.0	27-14-11-06
ETIM 9.0	EC001284
ETIM 10.0	EC001284
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

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Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-89884
CSA CSA Group	C22.2	2362521
CSA DEKRA Certification B.V.	C22.2 No. 158	2362521
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-129873
UR Underwriters Laboratories Inc.	UL 1059	E45172

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2091-1112

Documentation

Additional Information

Technical Section	03.04.2019	pdf 2027.26 KB

CAD/CAE-Data

CAD data

2D/3D Models 2091-1112

CAE data

ZUKEN Portal 2091-1112

1 Compatible Products

1.1 System counterpart

1.1.1 Male connector/plug

Item No.: 2091-1532/002-000
1-conductor male connector; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 12-pole; Integrated release lever; 1,50 mm²; light gray

Item No.: 2091-1432
THT male header; 1.0 mm Ø solder pin; angled; Pin spacing 3.5 mm; 12-pole; light gray

Item No.: 2091-1412
THT male header; 1.0 mm Ø solder pin; straight; Pin spacing 3.5 mm; 12-pole; light gray

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1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding

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

1.2.2 Ferrule

1.2.2.1 Ferrule

Item No.: 216-301
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow

Item No.: 216-131
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored

Item No.: 216-302
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise

Item No.: 216-132
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

Item No.: 216-101
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

Item No.: 216-202
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

Item No.: 216-102
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

Item No.: 216-122
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

Item No.: 216-203
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-103
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

Item No.: 216-143
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

Item No.: 216-204
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

Item No.: 216-144
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

Item No.: 216-104
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

Item No.: 216-106
Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated; silver-colored

1.2.3 Test and measurement

1.2.3.1 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

Continued on next page

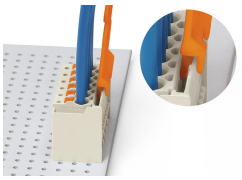
1.2.4 Tool

1.2.4.1 Operating tool

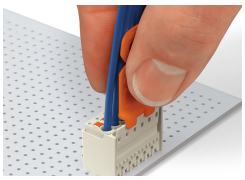
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

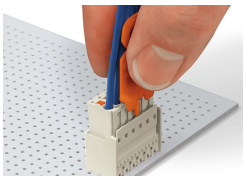
Locking system



Disconnecting a female connector via unlocking tool. Plug unlocking tool into the male header's locking latch.

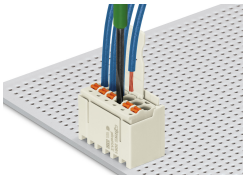


Insert unlocking tool until it hits the backstop. Wedge opens locking latches.

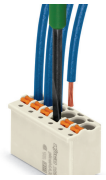


Pull on both unlocking tool and conductors to remove female connector from male header.

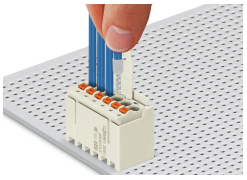
Conductor termination



Inserting fine-stranded conductor into mated female connector via push-button.



Inserting a fine-stranded conductor into an unmated female connector via push-button.



Inserting solid and ferruled conductors via push-in termination.

Marking

Pole marking via factory direct marking.

Coding

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

Testing

Testing via 1 mm Ø test pin – touch contact.