

THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Levers; in tape-and-reel packaging; Pin spacing 3.5 mm; 10-pole; black

www.wago.com/713-1405/116-000/997-406

Derating Curve

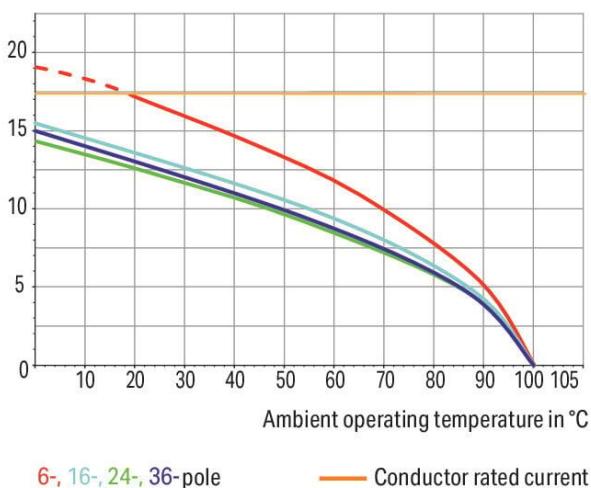
1-conductor female connector (713-1103) with

THT male header (713-1403)

Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"

Based on: EN 60512-5-2 / Reduction factor: 0.8

Current in A



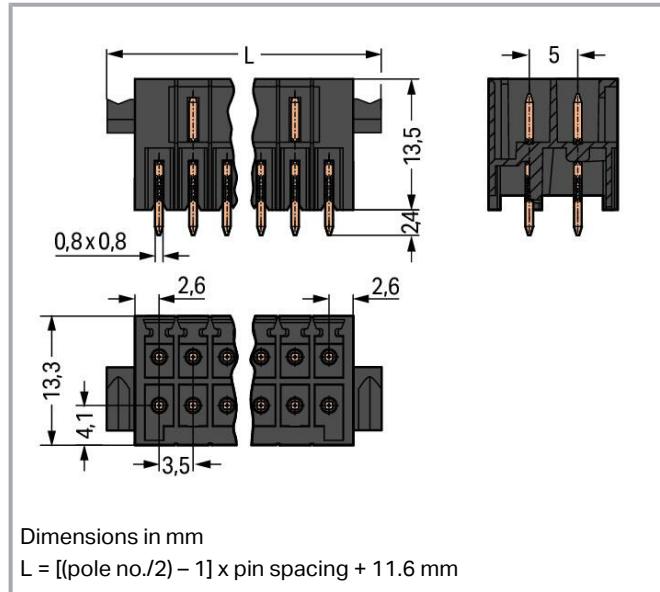
6-, 16-, 24-, 36-pole

Conductor rated current



Picture differs from the item.

Color: ■



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

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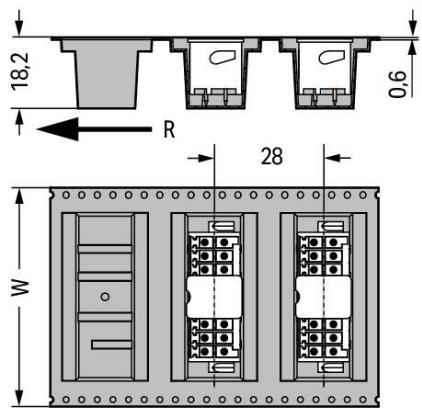
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Do you have any questions about our products?

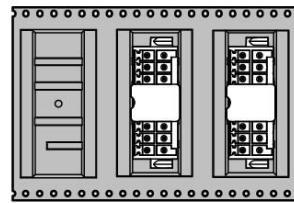
We are always happy to take your call at +49 (571) 887-44222.



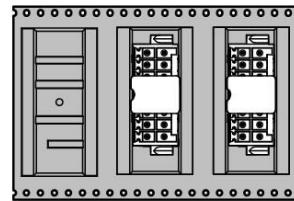
Dimensions in mm

W = tape width

R = feed direction



Position with odd number of poles



Position with even number of poles

Dimensions in mm

Pin position in tape-and-reel packaging

Item description

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Separated pin slots prevent damage and make the headers touch-proof when unplugged
- 100% protected against mismatching
- Coding option available

Data

Notes

Safety information

The *MCS – MULTI 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 unmated.

Variants:

Other pole numbers
 Other solder pin lengths
 Gold-plated or partially gold-plated contact surfaces
 Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

Electrical data

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

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Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	80 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)	250 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)	150 V
Rated current UL (Use Group B)	10 A
Rated voltage UL (Use Group C)	50 V
Rated current UL (Use Group C)	10 A

Ratings per CSA

Approvals per	CSA
Rated voltage CSA (Use Group B)	150 V
Rated current CSA (Use Group B)	12 A

Connection data

Total number of potentials	10
Number of connection types	1
Number of levels	2

Connection 1

Pole number	10
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Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	25.6 mm / 1.008 inches
Height	15.9 mm / 0.626 inches
Height from the surface	13.5 mm / 0.531 inches

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

Depth	13.3 mm / 0.524 inches
Solder pin length	2.4 mm
Solder pin dimensions	0.8 x 0.8 mm
Plated through-hole diameter (THR)	1.3 (± 0.1) mm
Reel diameter of tape-and-reel packaging	330 mm
Tape width	44 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	Yes
Plugging without loss of pin spacing	No
Mating direction to the PCB	90 °
Locking of plug-in connection	Locking lever

PCB contact

PCB contact	THR
Solder pin arrangement	over the entire male connector (in-line)
Number of solder pins per potential	1

Material data

Note (material data)

Information on material specifications can be found here

Color	black
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin
Fire load	0.069 MJ
Weight	2.9 g

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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
PU (SPU)	120 pcs
Packaging type	bag
Country of origin	DE
GTIN	4050821308737
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
	CSA CSA Group	C22.2	2315087
	UR Underwriters Laboratories Inc.	UL 1059	E45172

Counterpart

Item no. 713-1105/037-000

1-conductor female connector, 2-row; CAGE CLAMP®, 1.5 mm²; Pin spacing 3.5 mm; 10-pole; 100% protected against mismatching; Levers: 1.50 mm²; black

www.wago.com/713-1105/037-000

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

Optional accessories

Coding

Coding



Item no.: 714-101

Coding key; orange

www.wago.com/714-101

Downloads

Documentation

Additional Information

2019 Apr 3

pdf
2.1 MB

[Download](#)

THR Soldering Process

pdf
548.2 kB

[Download](#)

CAD/CAE-Data

CAD data

2D/3D Models 713-1405/116-000/997-406

[URL](#) [Download](#)

Asset Administration Shell

Asset Administration Shell 713-1405/116-000/997-406

[URL](#) [Download](#)

PCB Design

Symbol and Footprint via Ultra Librarian 713-1405/116-000/997-406

[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

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- 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

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

Symbol and Footprint via SamacSys 713-1405/116-000/997-406

[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

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- 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

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 713-1405/116-000/997-406

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Installation Notes

Coding

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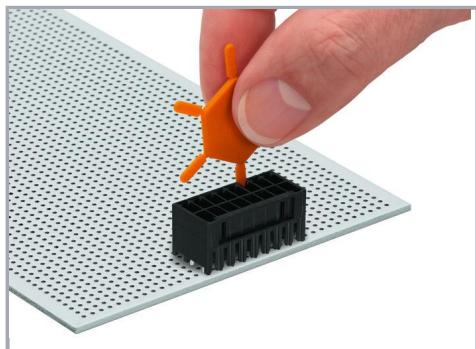
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Coding a male header by inserting a coding pin.

Product family

MCS MINI HD

[Show all products from the family](#)

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