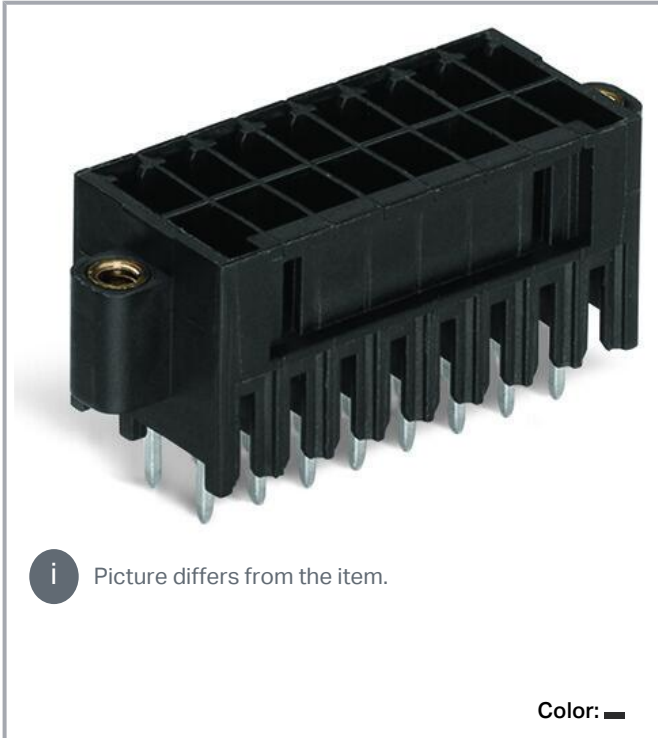


Data sheet | Item number: 713-1416/117-000

THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Threaded flange; Pin spacing 3.5 mm; 32-pole; black

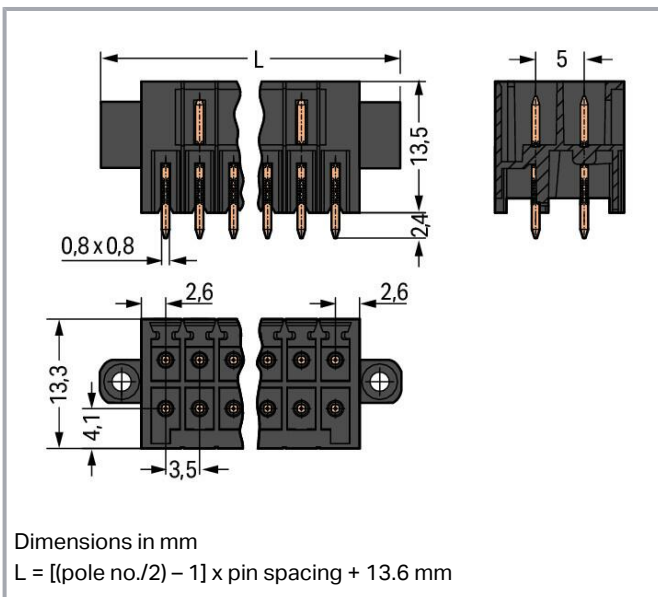


www.wago.com/713-1416/117-000



i Picture differs from the item.

Color:



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

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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

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) ≙ Overvoltage category III / Pollution degree 2

Ratings per UL

Approvals per	UL 1059
---------------	---------

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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	32
Number of connection types	1
Number of levels	2

Connection 1

Pole number	32
-------------	----

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	66.1 mm / 2.602 inches
Height	15.9 mm / 0.626 inches
Height from the surface	13.5 mm / 0.531 inches
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

Mechanical Data

Variable coding	Yes
Anti-rotation protection	Yes

Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB

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



Mismating protection	Yes
Plugging without loss of pin spacing	No
Mating direction to the PCB	90 °
Locking of plug-in connection	Threaded flange

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	0.173 MJ
Weight	8.6 g
MSL per J-STD 020D	1

Environmental requirements

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

Commercial data

Product Group	3 (Multi Conn. System)
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)	10 pcs
Packaging type	box

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Country of origin	PL
GTIN	4050821156536
Customs tariff number	85366930000

Environmental Product Compliance

CAS-No.	7439-92-1
REACH Candidate List Substance	Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c)
SCIP notification number (Austria)	f927d326-7946-467f-b3ab-9b96534401d9
SCIP notification number (Belgium)	df3154e2-d6ce-44a4-93ce-a5e2df139b36
SCIP notification number (Bulgaria)	9728a8ac-b42f-4e10-888b-8a4e1b89a717
SCIP notification number (Czech Republic)	68fb3393-1c23-4570-bd98-a02061d4cd1e
SCIP notification number (Denmark)	f7470bf3-ebde-4b3f-86fc-00634a3547d9
SCIP notification number (Finland)	daa1edc1-bb73-4716-921a-f8a5e99ab739
SCIP notification number (France)	d335e640-9397-410d-9c3d-552f0d032d07
SCIP notification number (Germany)	89810692-a0a4-4494-909e-6a937f9e1dd4
SCIP notification number (Hungary)	c5867cca-62a6-43dd-8ba5-d8000aa1838b
SCIP notification number (Italy)	5fd51a7a-fa60-4887-8241-680e59ce81df
SCIP notification number (Netherlands)	04664599-75c9-4490-bdb8-54ac764ac39a
SCIP notification number (Poland)	f32b467a-b9d5-483a-94de-c8c34b9c324c
SCIP notification number (Romania)	019ca7c0-5612-4ef5-9bc3-baffe9208a43
SCIP notification number (Sweden)	170e7ec2-379d-4840-97de-c2b60f54b928

Approvals / Certificates**General approvals**

Logo	Approval	Additional Approval Text	Certificate name
	CSA CSA Group	C22.2	2315087
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	71- 126089
	UR Underwriters Laboratories Inc.	UL 1059	E45172

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Counterpart



Item no. 713-1116/107-000

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 32-pole; 100% protected against mismatching; Screw flange; 1,50 mm²; black

www.wago.com/713-1116/107-000

Optional accessories

Coding

Coding



Item no.: 714-101

Coding key; orange

www.wago.com/714-101

Downloads

Documentation

Additional Information

Technical Section	2019 Apr 3	pdf 2.1 MB	Download
Technical explanations			
THR Soldering Process		pdf 548.2 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 713-1416/117-000	URL	Download
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PCB Design

Symbol and Footprint via Ultra Librarian 713-1416/117-000	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

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- 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

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

Symbol and Footprint via SamacSys 713-1416/117-000

[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

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

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- 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

CAE data

ZUKEN Portal 713-1416/117-000	URL	Download
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Asset Administration Shell

Asset Administration Shell 713-1416/117-000	URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 713-1416/117-000	URL	Download
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THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Threaded flange; Pin spacing 3.5 mm; 32-pole; black

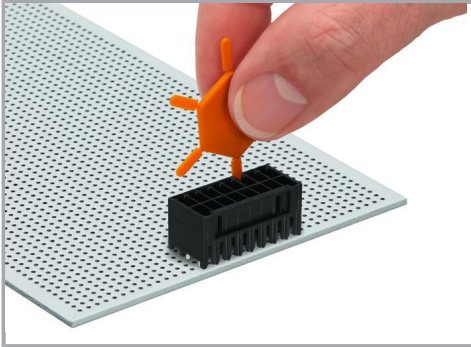
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Installation Notes

Coding



Coding a male header by inserting a coding pin.

Product family

MCS MINI HD

[Show all products from the family](#)

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