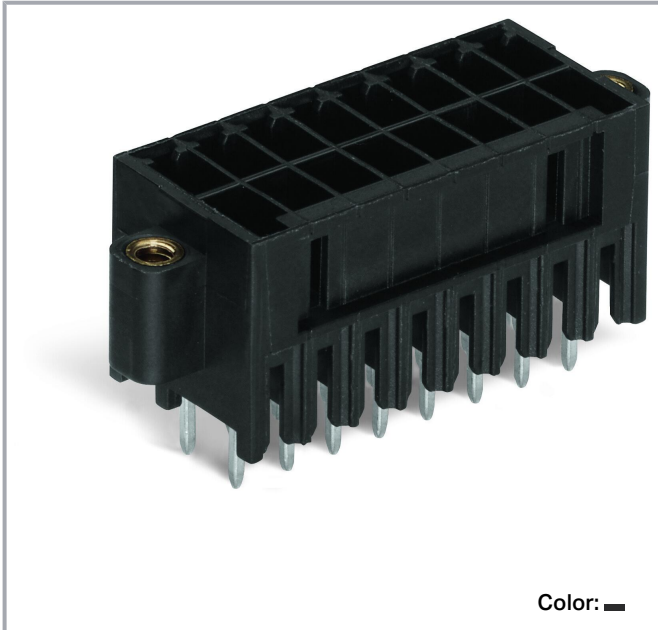


**Data sheet | Item number: 713-1408/117-000**

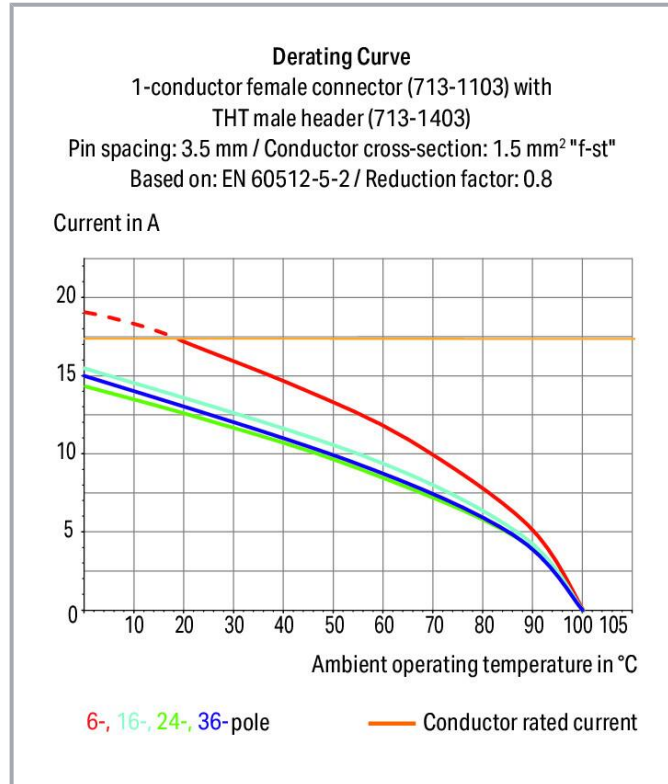
THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Threaded flange; Pin spacing 3.5 mm; 16-pole; black



[www.wago.com/713-1408/117-000](http://www.wago.com/713-1408/117-000)



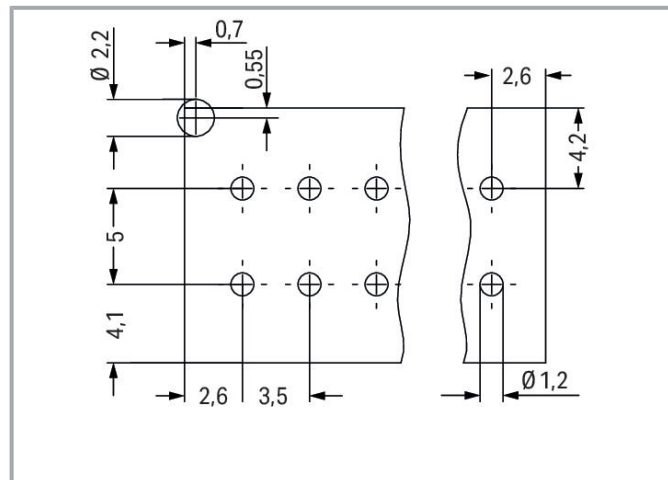
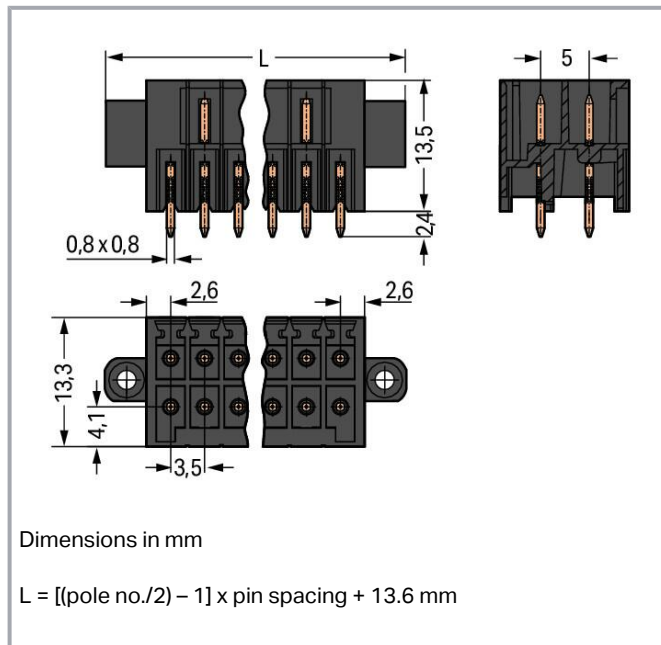
Color: ■



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/>.

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

## 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) $\hat{=}$ Overvoltage category III / Pollution degree 2

### Ratings per UL 1059

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	16
Number of connection types	1
Number of levels	2

### Connection 1

Pole number	16
-------------	----

## Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	38.1 mm / 1.5 inches

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



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 <sup>(+0.1)</sup> 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	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 <sub>Cu</sub> )
Contact plating	Tin
Fire load	0.096 MJ
Weight	4.8 g

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



MSL gemäß 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
PU (SPU)	25 pcs
Packaging type	box
Country of origin	PL
GTIN	4050821156451
Customs tariff number	85366990990

## 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)	2668606d-037e-4ff3-8709-04bfcee9f507
SCIP notification number (Belgium)	aa9c96ab-39f6-4f2d-926b-c24329fc0e45
SCIP notification number (Bulgaria)	900dec2c-ec92-44af-888c-3919fe67a06f
SCIP notification number (Czech Republic)	23d35dc1-1d8c-4ade-bf19-d77d7c2eed27
SCIP notification number (Denmark)	50addbea-2328-4629-aa4c-deb406ffd573
SCIP notification number (Finland)	fc91d672-f6cb-41d6-bccb-bb53ca49a162
SCIP notification number (France)	8b8bb3b5-9d08-42bc-be1d-c1775fa251e8
SCIP notification number (Germany)	acdc9484-274d-414b-8703-d850ebe23991
SCIP notification number (Hungary)	838c518b-505b-4235-9e78-71d4a4dba21e
SCIP notification number (Italy)	6851cf63-6a03-4ad5-94cc-e065928a81d3
SCIP notification number (Netherlands)	57a8f2e3-1f31-4265-bb7f-e103e23b2196
SCIP notification number (Poland)	5475d2ed-56d5-4ca9-b754-38b01e9f73b4
SCIP notification number (Romania)	c52924f8-50c8-4b45-ac5f-130374b67525
SCIP notification number (Sweden)	5260db26-8df3-496f-b124-e7f79424f038


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## Approvals / Certificates

### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172

## Counterpart



Item no.713-1108/107-000

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 16-pole; 100% protected against mismatching; Screw flange; 1,50 mm<sup>2</sup>; black

[www.wago.com/713-1108/107-000](http://www.wago.com/713-1108/107-000)

## Optional accessories

### Coding

Coding



Item no.: 714-101  
Coding key; orange

[www.wago.com/714-101](http://www.wago.com/714-101)

## Downloads

### Documentation

#### Additional Information

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

## CAD/CAE-Data

### CAD data

2D/3D Models 713-1408/117-000	URL	Download
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### PCB Design

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



[URL](#)

[Download](#)

Symbol and Footprint 713-1408/117-000

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
- Altium 6 to current version
- 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

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

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#### CAE data

ZUKEN Portal 713-1408/117-000

[URL](#)

[Download](#)

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 713-1408/117-000

[URL](#)

[Download](#)

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; 16-pole; black

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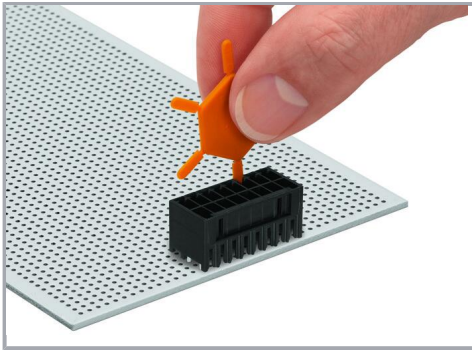
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## Installation Notes

### Coding



Coding a male header by inserting a coding pin.

## Product family

**MCS MINI HD**

[Show all products from the family](#)

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