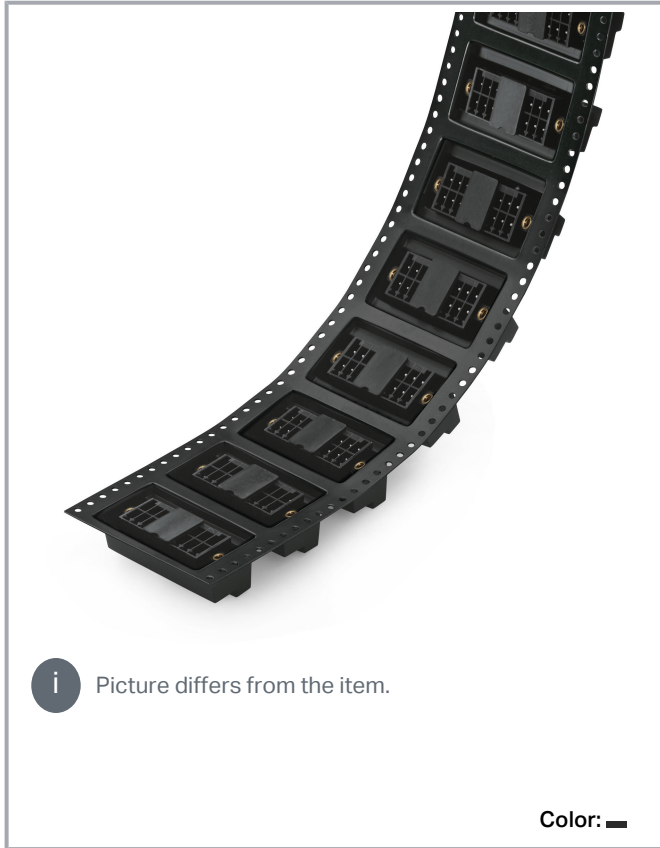


**Data sheet | Item number: 713-1416/117-000/997-409**

THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 32-pole; black



[www.wago.com/713-1416/117-000/997-409](http://www.wago.com/713-1416/117-000/997-409)



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

WAGO Kontakttechnik GmbH & Co. KG  
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Dimensions in mm

$L = [(pole\ no./2) - 1] \times pin\ spacing + 13.6\ mm$

Dimensions in mm

W = tape width

R = feed direction

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



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

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## Data

### Notes

#### Safety information 1

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. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

Other pole numbers  
Other solder pin lengths  
Gold-plated or partially gold-plated contact surfaces

## Electrical data

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
Approvals per	CSA
Rated voltage CSA (Use Group B)	150 V
Rated current CSA (Use Group B)	12 A
Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	80 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge 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

## Connection data

Total number of potentials	32
Number of connection types	1
Number of levels	2
Pole No.	32

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## Physical data

Pin spacing	3.5 mm / 0.138 inch
Width	66.1 mm / 2.602 inch
Height	15.9 mm / 0.626 inch
Height from the surface	13.5 mm / 0.531 inch
Depth	13.3 mm / 0.524 inch
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
Reel diameter of tape-and-reel packaging	330 mm
Tape width	88 mm

## Plug-in connection

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

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-plated
Weight	8.6 g

## Environmental requirements

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

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

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## Commercial data

PU (SPU)	120 Stück
Packaging type	bag
Country of origin	DE
GTIN	4050821308942
Customs tariff number	85366990990

## Approvals / Certificates

### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UR Underwriters Laboratories Inc.	UL 1059	E45172

## Counterpart



Item no. 713-1116/107-000

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

[www.wago.com/713-1116/107-000](http://www.wago.com/713-1116/107-000)

## 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 explanations	Apr 3, 2019	pdf 2.0 MB	Download
THR Soldering Process		pdf 548.2 kB	Download

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

## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 713-1416/117-000/997-409

URL

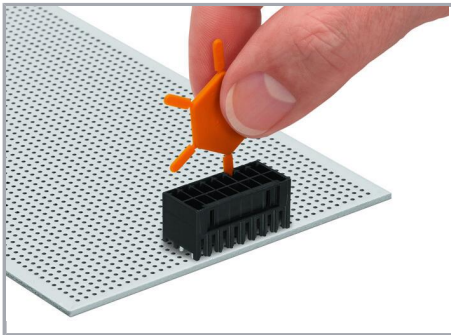
Download

THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; in tape-and-reel packaging; 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](#)

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