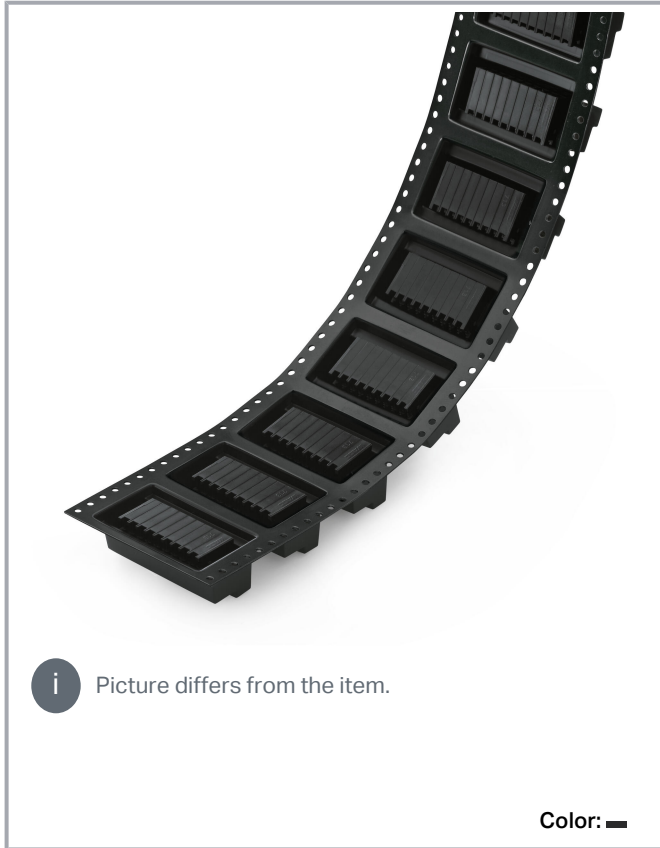


**Data sheet | Item number: 713-1430/117-000/997-408**

THR male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 20-pole; black



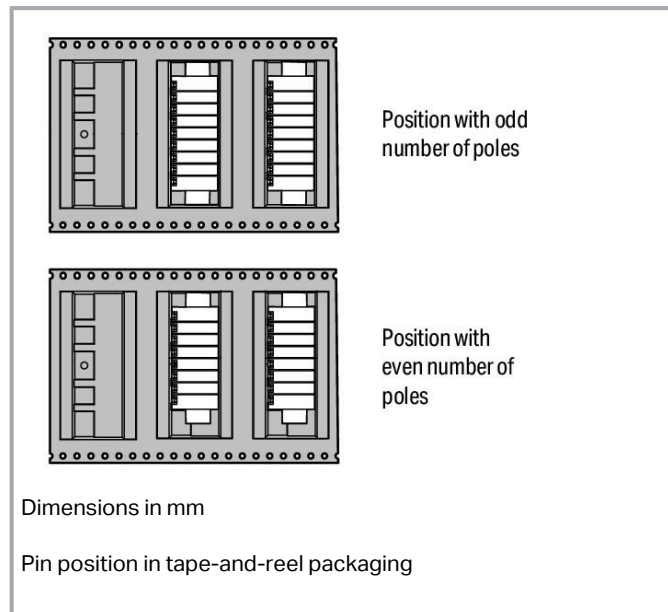
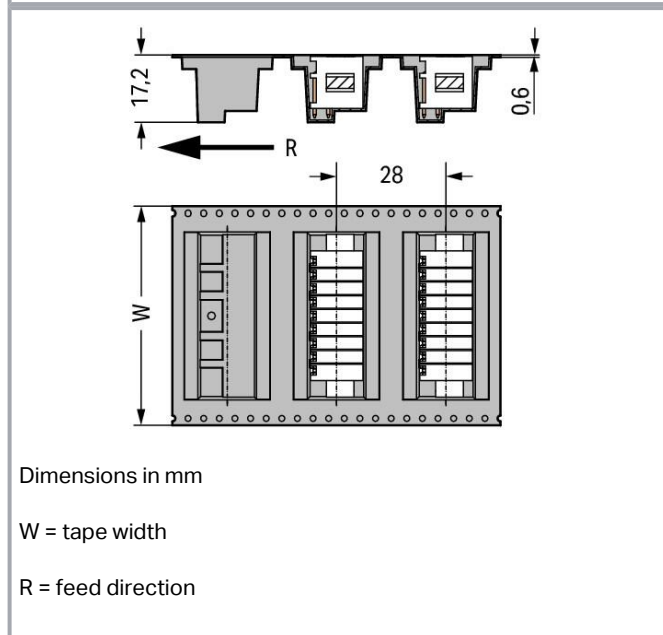
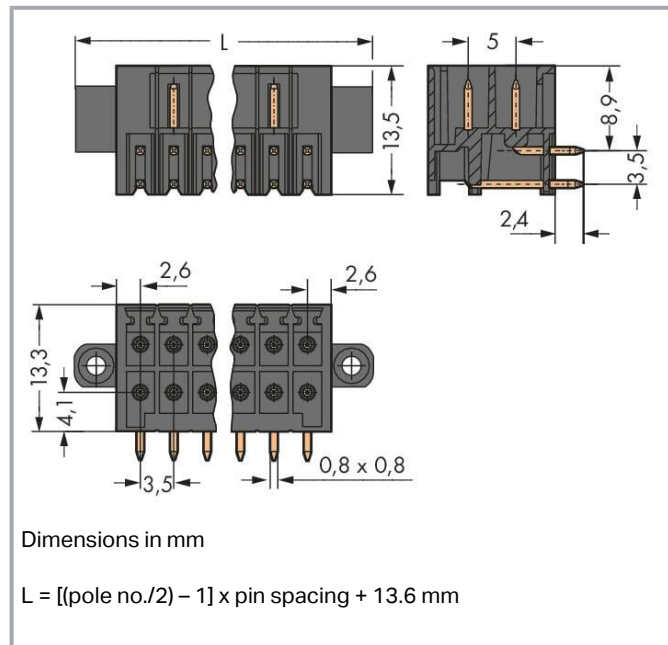
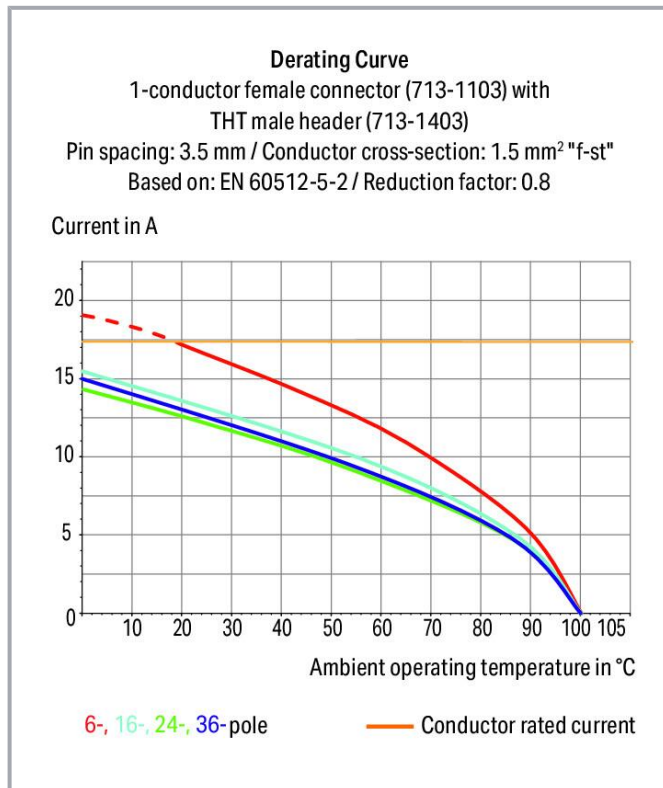
[www.wago.com/713-1430/117-000/997-408](http://www.wago.com/713-1430/117-000/997-408)



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

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- 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) $\hat{=}$ 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

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## 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	20
Number of connection types	1
Number of levels	2

## Connection 1

Pole number	20
-------------	----

## Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	45.1 mm / 1.776 inches
Height	15.7 mm / 0.618 inches
Height from the surface	13.3 mm / 0.524 inches
Depth	13.5 mm / 0.531 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
Reel diameter of tape-and-reel packaging	330 mm
Tape width	72 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

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



Mating direction to the PCB	0°
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
Weight	6.5 g
MSL gemäß J-STD 020D	1

### 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	4055143778848
Customs tariff number	85366990990

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## 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)	99fdcfcd-8f04-4237-9ab6-54fec5002721
SCIP notification number (Belgium)	b0150b98-761c-4a15-b2c9-108523c903ff
SCIP notification number (Bulgaria)	2ed02b49-1f2e-4ebe-b15b-7dc5f9f6a076
SCIP notification number (Czech Republic)	ee98b6b2-26ee-4c8b-b809-bab68c4c55f2
SCIP notification number (Denmark)	c1280e8d-8e21-48d8-afed-2d9f56c62246
SCIP notification number (Finland)	bfba94fe-71a7-4f4d-818f-88c8349f068e
SCIP notification number (France)	024fe0f4-f720-4e6c-bf46-e6d0865262fc
SCIP notification number (Germany)	31e621f1-db09-43b8-aad9-9be23b8f10ca
SCIP notification number (Hungary)	350fba82-0ef8-40c7-9dd5-782cfcfe512b
SCIP notification number (Italy)	a19778b0-4cf0-4b0f-8560-c12abd98077a
SCIP notification number (Netherlands)	4bd2b152-1aca-44ba-8983-f6f6d8ca9e18
SCIP notification number (Poland)	ab270cbd-504a-47cd-95b2-320f8204d103
SCIP notification number (Romania)	20d80ad3-ccde-4e3a-8ff9-32066b5c8da7
SCIP notification number (Sweden)	4f3fcb39-6dd1-41f6-9def-a16724b341a7

## Approvals / Certificates

### General approvals

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

## Counterpart



Item no.713-1110/107-000

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 20-pole; 100% protected against mismatching; Screw flange; 1,50 mm<sup>2</sup>; black

[www.wago.com/713-1110/107-000](http://www.wago.com/713-1110/107-000)

## Downloads

### Documentation

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## Additional Information

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

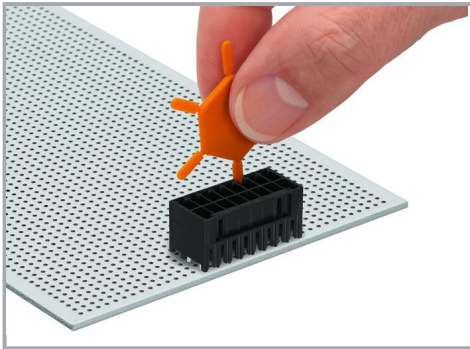
## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 713-1430/117-000/997-408	URL	Download
THR male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 20-pole; black		

## 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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