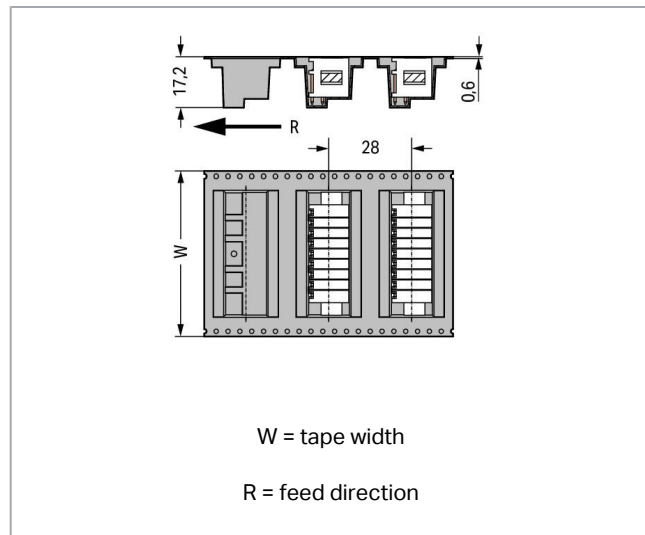
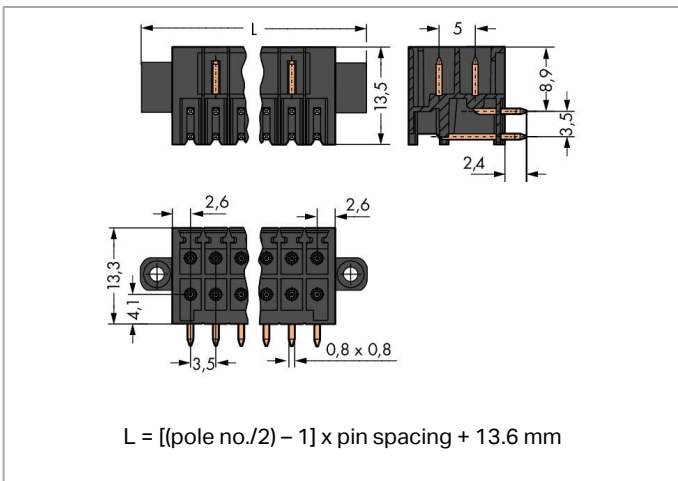
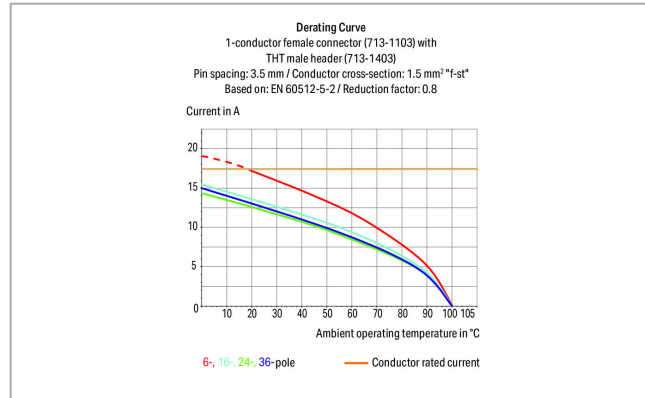
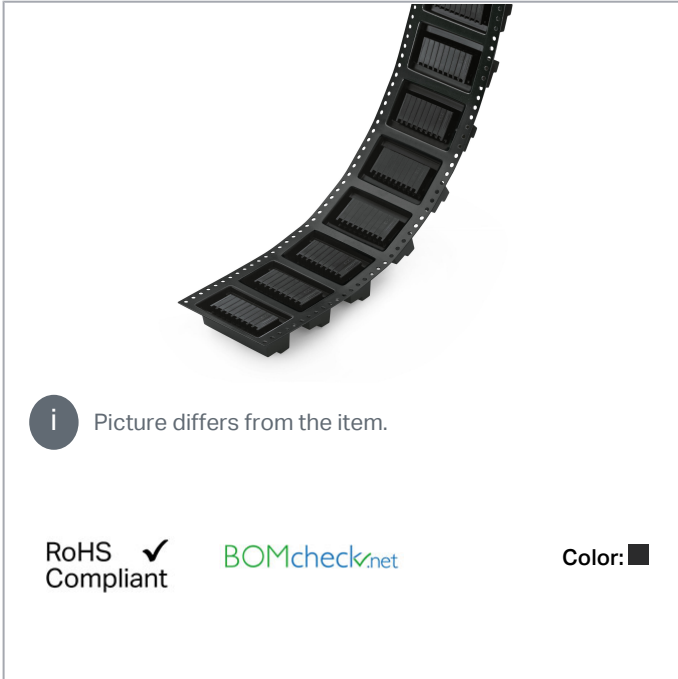


Data sheet | Item number: 713-1431/117-000/997-408



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; 22-pole; black

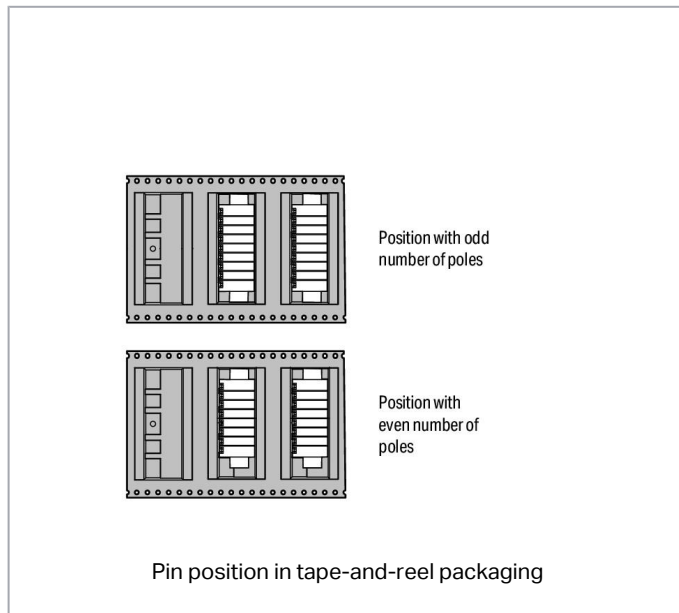
[www.wago.com/713-1431/117-000/997-408](http://www.wago.com/713-1431/117-000/997-408)



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

WAGO Kontakttechnik GmbH & Co. KG  
 Hansastr. 27  
 32423 Minden  
 Phone: +49571 887-0 | Fax: +49571 887-169  
 Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

Do you have any questions about our products?  
 We are always happy to take your call at +49 (571) 887-44222.



## 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

## 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.

## Data

### Electrical data

### Ratings per IEC/EN

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

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

WAGO Kontakttechnik GmbH & Co. KG  
 Hansastr. 27  
 32423 Minden  
 Phone: +49571 887-0 | Fax: +49571 887-169  
 Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

Do you have any questions about our products?  
 We are always happy to take your call at +49 (571) 887-44222.



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

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

Pole No.	22
Total number of potentials	22
Number of connection types	1
Number of levels	2

### Physical data

Pin spacing	3.5 mm / 0.138 inch
Width	48.6 mm / 1.913 inch
Height	15.7 mm / 0.618 inch
Height from the surface	13.3 mm / 0.524 inch
Depth	13.5 mm / 0.531 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	72 mm

### Plug-in connection

Contact type (pluggable connector)	Male connector/plug
------------------------------------	---------------------

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

Connector (connection type)	for PCB
Mismating protection	Yes
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

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	7.1 g

### Environmental requirements


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

### Commercial data

Packaging type	bag
Country of origin	DE
GTIN	4055143778855
Customs tariff number	85366990990

### Approvals / Certificates

#### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UR Underwriters Laboratories Inc.	UL 1059	E45172- 19950922

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

## Counterpart



Item no.713-1111/107-000

1-conductor female connector, 2-row; 100% protected against mismatching; Screw flange; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 22-pole; 1,50 mm<sup>2</sup>; black

[www.wago.com/713-1111/107-000](http://www.wago.com/713-1111/107-000)

## Downloads

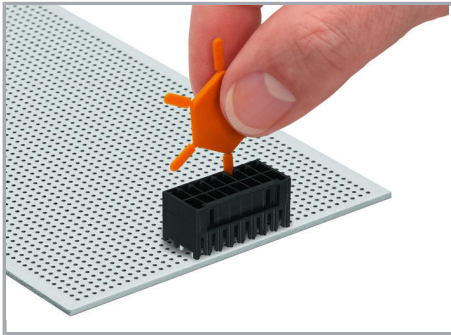
### Documentation

#### Additional Information

Technical explanations	3. 4. 2019	pdf 2.0 MB	Download
THR Soldering Process		pdf 548.2 kB	Download

## Installation Notes

### Coding



Coding a male header by inserting a coding pin.

## Product family

<i>MCS</i> MINI HD

[Show all products from the family](#)

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