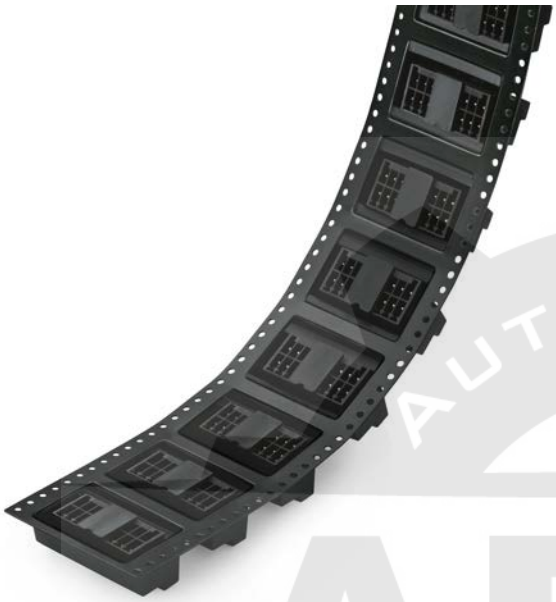
Data sheet | Item number: 713-1410/116-000/997-408

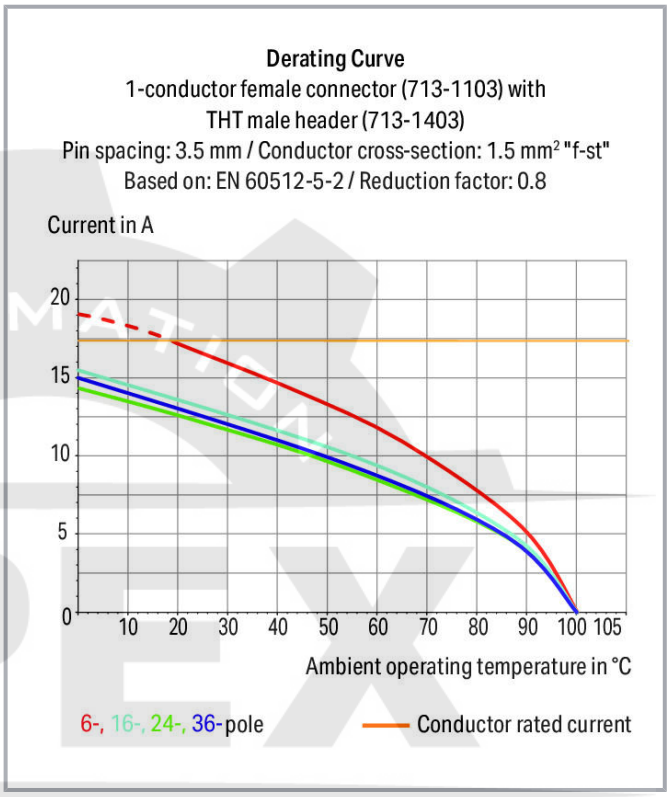
THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismating; Levers; in tape-and-reel packaging; Pin spacing 3.5 mm; 20-pole; black

www.wago.com/713-1410_116-000_997-408



Picture differs from the item.

Color:



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

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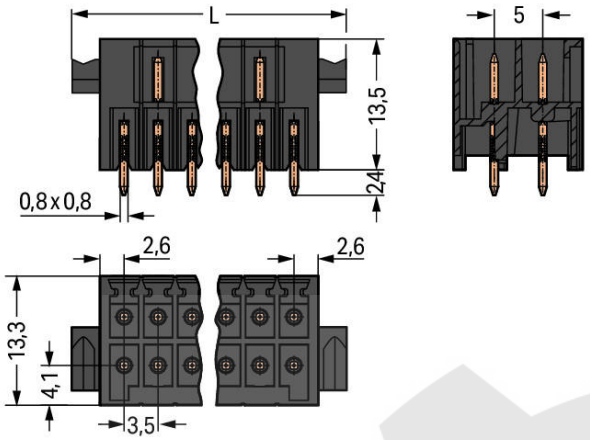
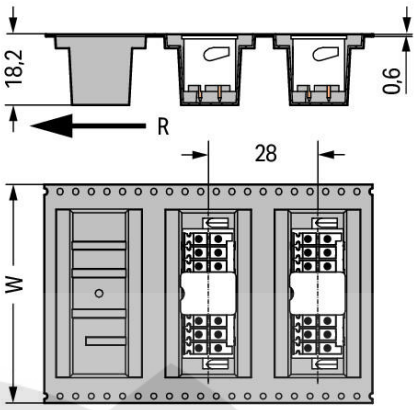
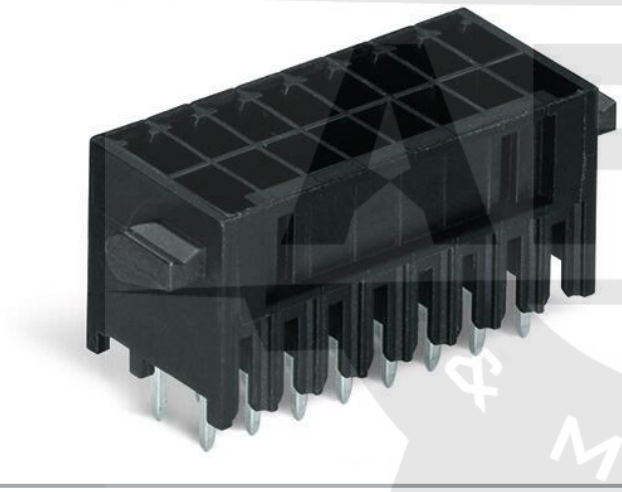


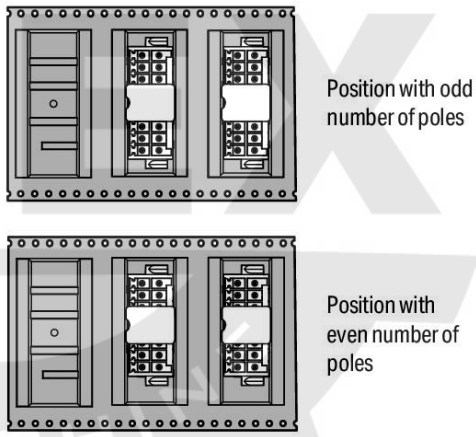
L = [(pole no./2) – 1] x pin spacing + 11.6 mm



W = tape width

R = feed direction





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 mismating

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- 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

IEC Approvals

Ratings per	IEC/EN 60664-1
Rated 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

UL Approvals

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

CSA Approvals

Approvals per	CSA
Rated voltage CSA (Use Group B)	150 V
Rated current CSA (Use Group B)	12 A

Connection data

Pole No.	20
Total number of potentials	20
Number of connection types	1

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

Number of levels	2

Physical data

Pin spacing	3.5 mm / 0.138 inch
Width	43.1 mm / 1.697 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 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm
Tape width	72 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	Locking lever

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_{Cu})
Contact plating	tin-plated
Weight	5.2 g

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Environmental requirements

Limit temperature range	-60 … +100 °C

Commercial data

Product Group	3 (Multi Conn. System)
Packaging type	bag
Country of origin	DE
GTIN	4050821308775
Customs tariff number	8536694040

Approvals / Certificates

UL-Approvals

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

Counterpart

Item no.713-1110/037-000
1-conductor female connector, 2-row; 100% protected against mismating; Levers; 1.5 mm²; Pin spacing 3.5 mm; 20-pole; 1,50 mm²; black

www.wago.com/713-1110/037-000

Optional accessories

Coding

Item no.: 714-101
Coding key; orange

www.wago.com/714-101

Downloads

Documentation

Additional Information

Technical explanations	Apr 3, 2019	pdf 2.0 MB	Download
THR Soldering Process		pdf	Download

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

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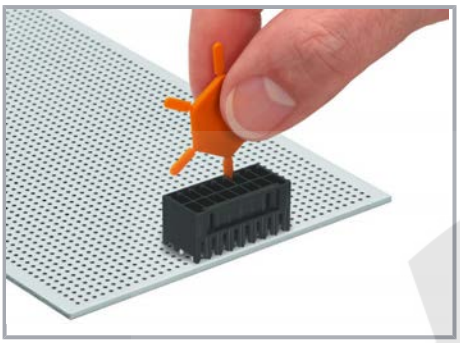
548.2 kB

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!

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