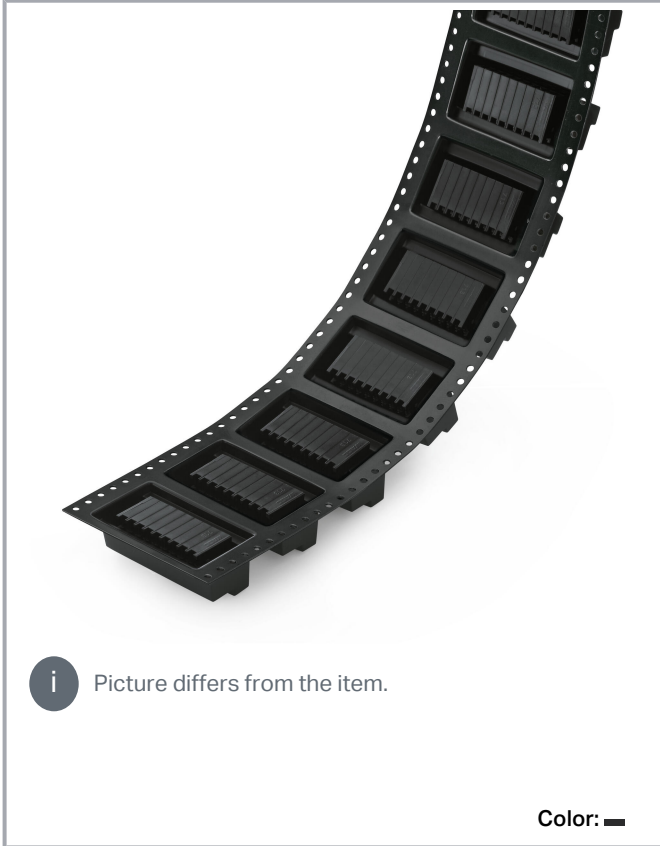


Data sheet | Item number: 713-1431/117-000/997-408

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



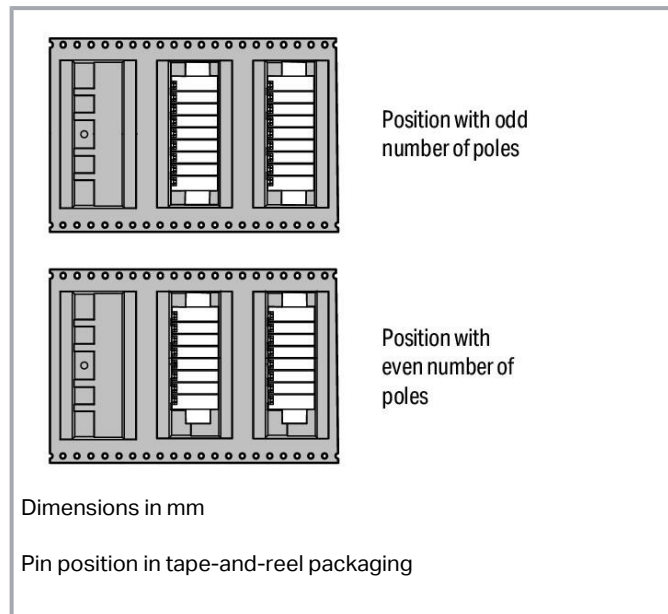
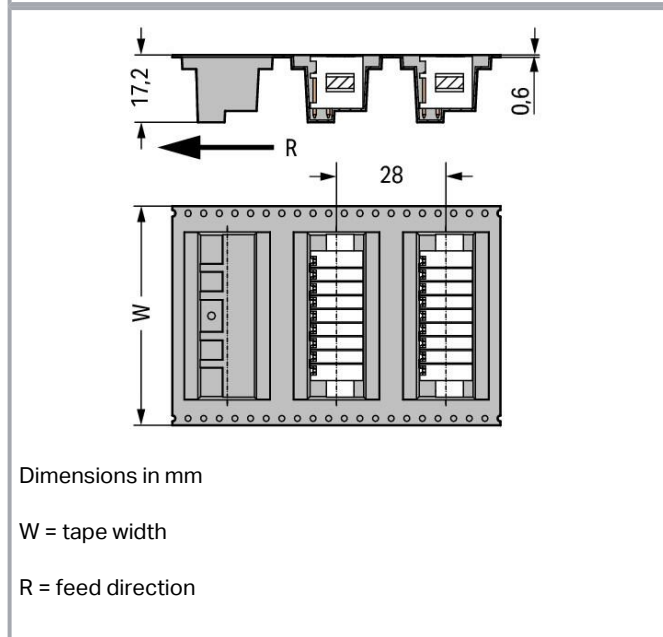
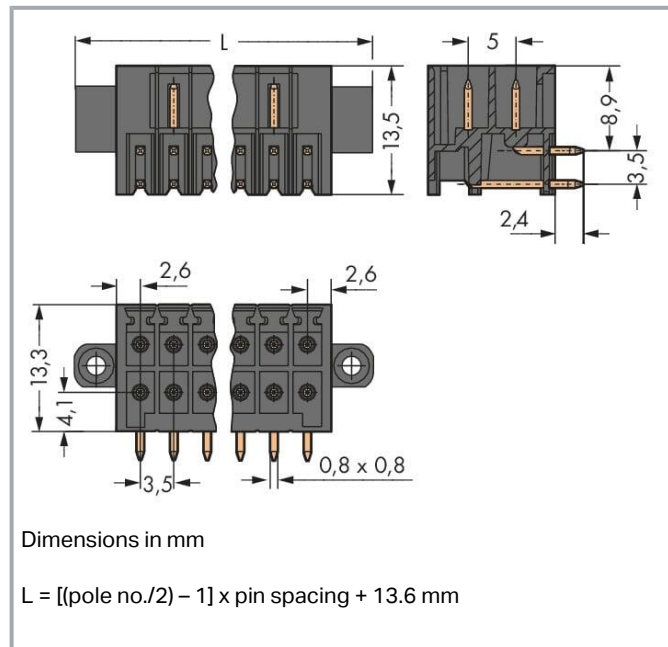
www.wago.com/713-1431/117-000/997-408



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

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Do you have any questions about our products?
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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	22
Number of connection types	1
Number of levels	2

Connection 1

Pole number	22
-------------	----

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	48.6 mm / 1.913 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 ^(+0.1) 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

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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 _{Cu})
Contact plating	Tin
Weight	7.1 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	4055143778855
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)	b5bced4c-5aa3-47ab-84bb-9ad4189f7058
SCIP notification number (Belgium)	ff63f748-fe95-4fdc-b486-e34300b1f383
SCIP notification number (Bulgaria)	fb20916a-d158-4610-bda6-dac683db39f3
SCIP notification number (Czech Republic)	bdc5b373-5f2c-46b5-97d4-5b9879b4a6c6
SCIP notification number (Denmark)	176deb0c-d2c8-4283-8a34-bcb6dc57554f
SCIP notification number (Finland)	21502815-fe45-4846-b396-aa0a62cab015
SCIP notification number (France)	b0ddf025-2e4d-46ac-b879-cd61890522cd
SCIP notification number (Germany)	cf7bd8cc-0f9d-4eba-96b9-f88497326623
SCIP notification number (Hungary)	3e4b6d9b-5867-4e9d-9781-58412a9d7bc4
SCIP notification number (Italy)	d1b42b73-8196-4a0e-ae4-d99cf6593f41
SCIP notification number (Netherlands)	39bcf1a0-ab79-4034-8196-d90df2b006b3
SCIP notification number (Poland)	f7dae2a4-a305-4377-b86f-88f56a2d8225
SCIP notification number (Romania)	9b4eb744-f481-4ca3-869e-4e170039601a
SCIP notification number (Sweden)	ef038057-4f6b-4082-920e-810ce1a8a97c

Approvals / Certificates

General approvals

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

Counterpart



Item no.713-1111/107-000

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 22-pole; 100% protected against mismatching; Screw flange; 1,50 mm²; black

www.wago.com/713-1111/107-000

Downloads

Documentation

Subject to changes. Please also observe the further product 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	

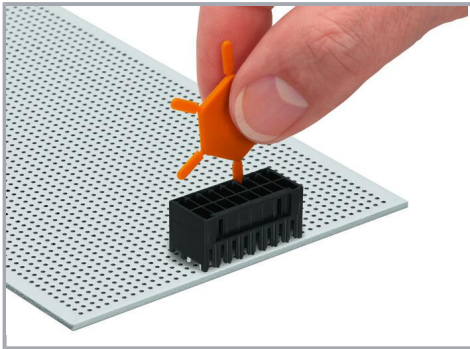
Environmental Product Compliance

Compliance Search

Environmental Product Compliance 713-1431/117-000/997-408	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; 22-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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