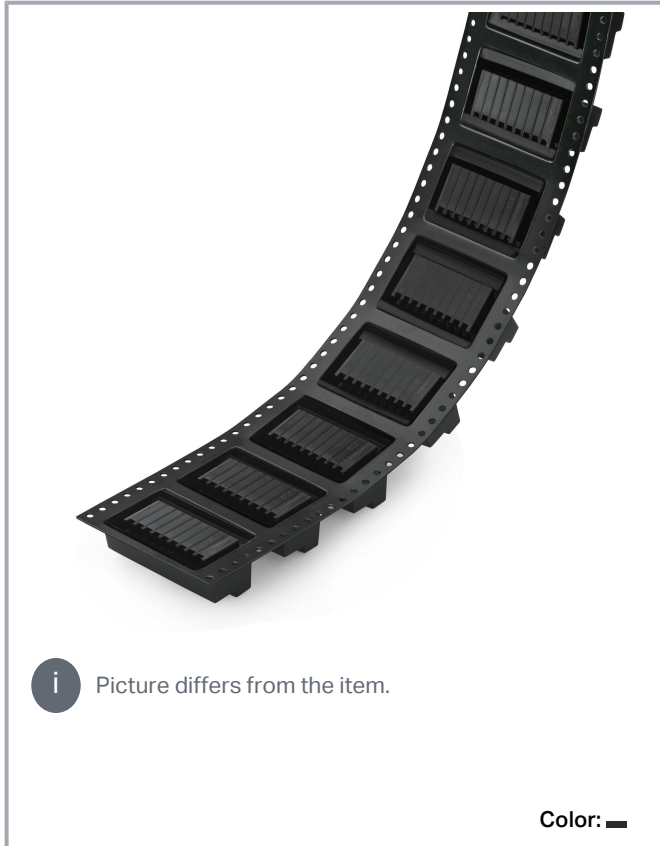


Data sheet | Item number: 713-1431/116-000/997-408

THR male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Levers; in tape-and-reel packaging; Pin spacing 3.5 mm; 22-pole; black



www.wago.com/713-1431/116-000/997-408



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

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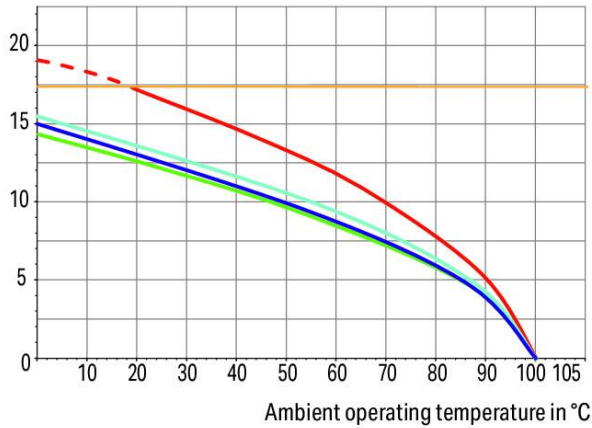
Derating Curve

1-conductor female connector (713-1103) with
THT male header (713-1403)

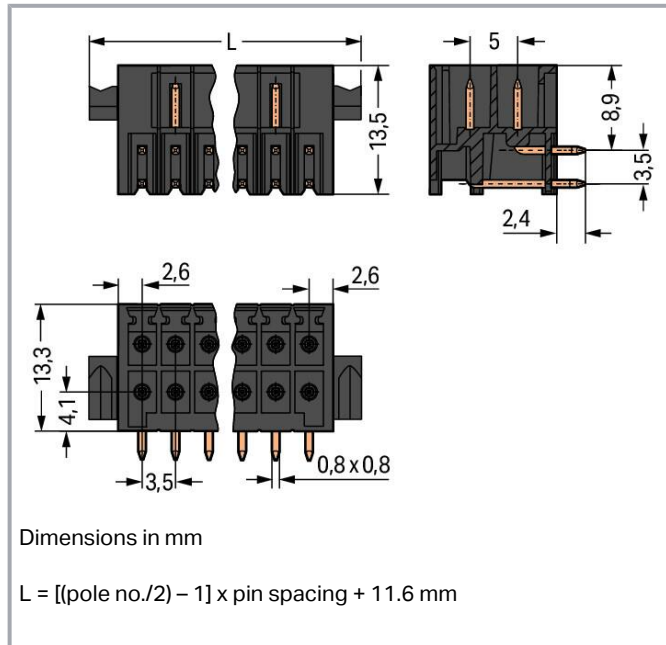
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"

Based on: EN 60512-5-2 / Reduction factor: 0.8

Current in A

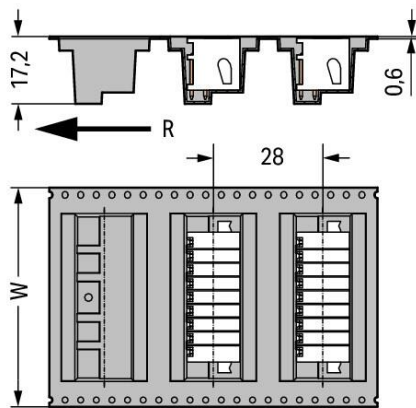


6-, 16-, 24-, 36-pole — Conductor rated current



Dimensions in mm

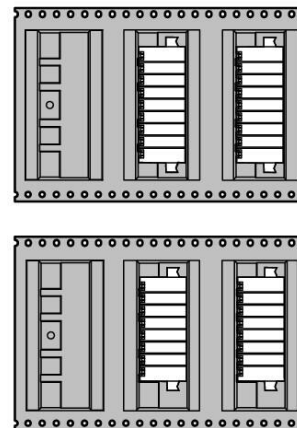
$$L = [(pole\ no./2) - 1] \times pin\ spacing + 11.6\ mm$$



Dimensions in mm

W = tape width

R = feed direction



Position with odd number of poles

Position with even number of poles

Dimensions in mm

Pin position in tape-and-reel packaging

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	46.6 mm / 1.835 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

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



Mating direction to the PCB	0°
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

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	6.6 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	4055143778596
Customs tariff number	85366990990

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Environmental Product Compliance

RoHS Compliance Status

Compliant, No Exemption

Approvals / Certificates

General approvals

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

Counterpart



Item no. 713-1111/037-000

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 22-pole; 100% protected against mismatching; Levers; 1,50 mm²; blackwww.wago.com/713-1111/037-000

Downloads

Documentation

Additional Information

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

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 713-1431/116-000/997-408

URL

Download

THR male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Levers; in tape-and-reel packaging; Pin spacing 3.5 mm; 22-pole; black

Installation Notes

Coding

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

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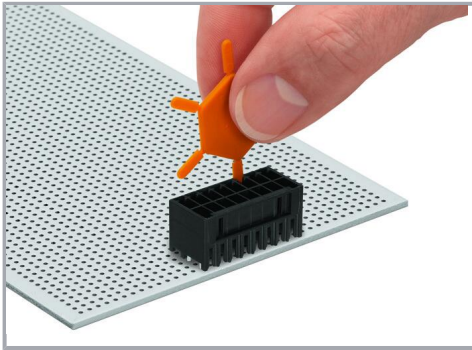
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Coding a male header by inserting a coding pin.

Product family

MCS MINI HD

[Show all products from the family](#)

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