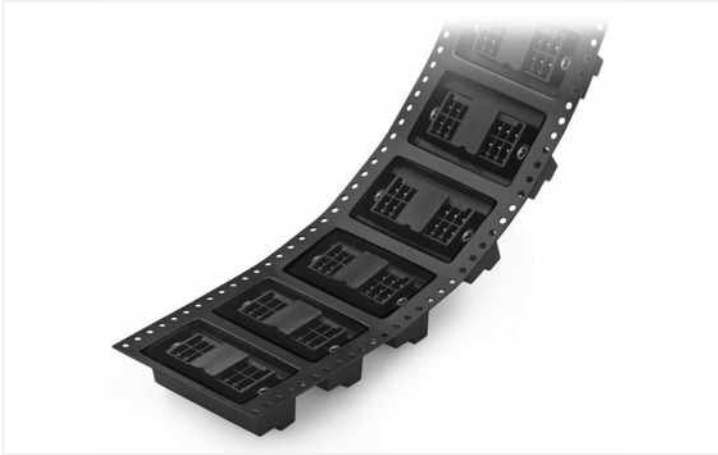


**Data Sheet | Item Number: 713-1417/117-000/997-409**

THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 34-pole; black



<https://www.wago.com/713-1417/117-000/997-409>

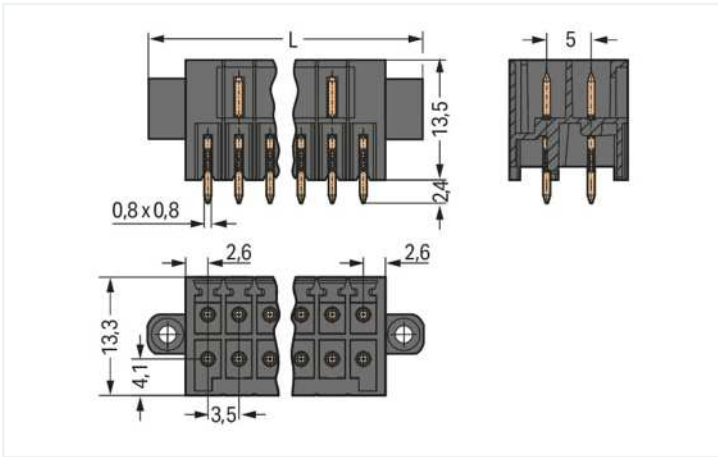


Color: ■ black

Similar to illustration

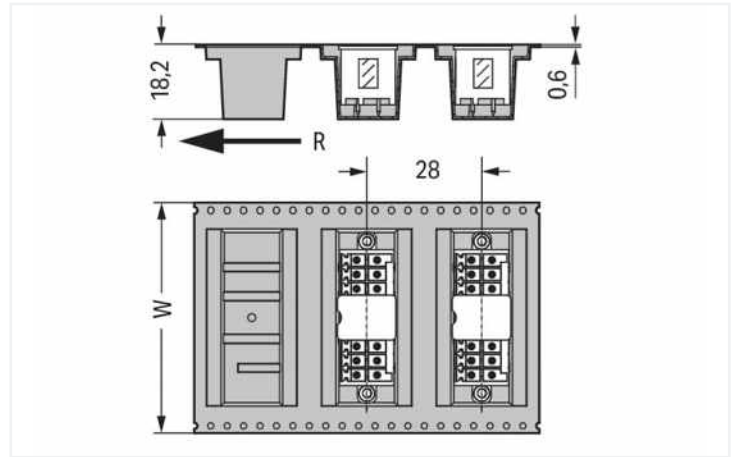


Similar to illustration



Dimensions in mm

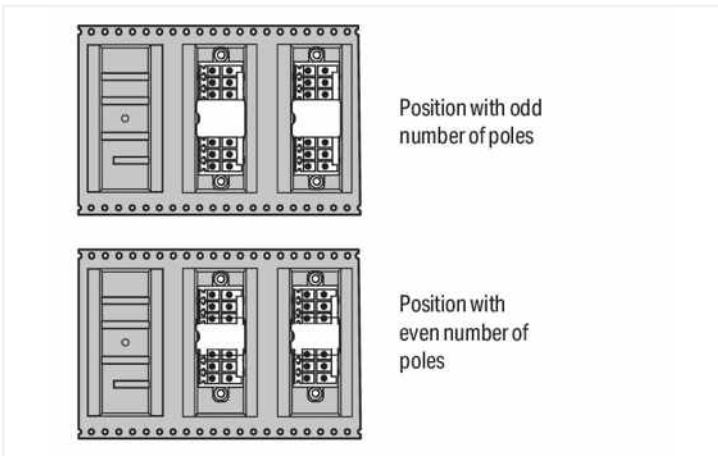
$$L = [(pole\ no./2) - 1] \times pin\ spacing + 13.6\ mm$$



Dimensions in mm

W = tape width

R = feed direction

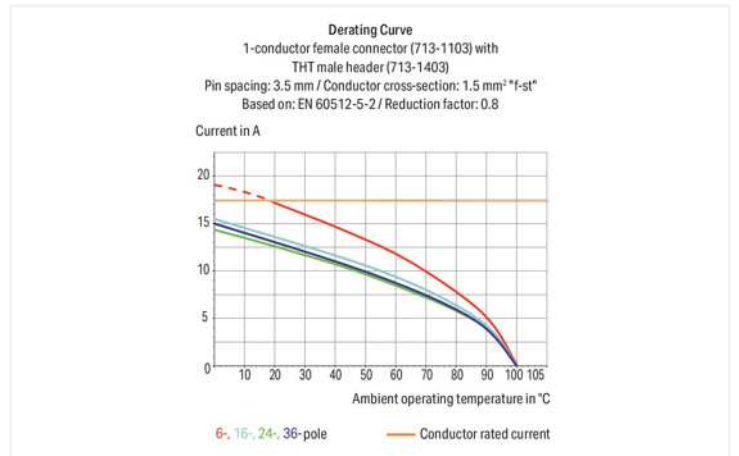


Position with odd number of poles

Position with even number of poles

Dimensions in mm

Pin position in tape-and-reel packaging



- 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

## 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 60664-1			Approvals per	UL 1059		
Overvoltage category	III	III	II	Use group	B	C	D
Pollution degree	3	2	2	Rated voltage	150 V	50 V	-
Nominal voltage	80 V	160 V	250 V	Rated current	10 A	10 A	-
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV				
Rated current	10 A	10 A	10 A				

Approvals per	CSA		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	12 A	-	-

## Connection data

Total number of potentials	34	<b>Connection 1</b>	
Number of connection types	1	Pole number	34
Number of levels	2		

## Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	69.6 mm / 2.74 inches
Height	15.9 mm / 0.626 inches
Height from the surface	13.5 mm / 0.531 inches
Depth	13.3 mm / 0.524 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	88 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
Mating direction to the PCB	90 °
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)	<a href="https://www.wago.com/us/material-specifications" href="_blank">Information on material specifications can be found here</a>
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
Fire load	0 MJ
Weight	9 g
MSL per 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	4050821308959
Customs tariff number	85366930000

### Environmental Product Compliance

CAS-No.	7439-92-1
REACH Candidate List Substance	Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	cabe8007-6414-41a1-bfe0-35dc07629b2d
SCIP notification number (Belgium)	a2294189-209a-4a44-80e5-3f6073be0c0d
SCIP notification number (Bulgaria)	eccf581d-ea06-466f-8f08-3e6a6f4b5e5c
SCIP notification number (Czech Republic)	722f47b6-1f4b-4f5d-bc38-b0ee80a2d1c7
SCIP notification number (Denmark)	ca61a2bb-d7b3-4387-b19a-9dcc126c3c03
SCIP notification number (Finland)	00c6c02c-d2d8-4ca7-951a-f144e039ed8c
SCIP notification number (France)	a42d3073-9e3c-4f9d-9724-50d1d8c6d129
SCIP notification number (Germany)	d6291bf0-2127-444f-be01-979c1de98843
SCIP notification number (Hungary)	986bb252-87ad-459f-bc1a-79fde9111552
SCIP notification number (Italy)	75b8b0a2-acfe-44ca-81f8-ef84eae29afa
SCIP notification number (Netherlands)	5dbbdb71-5547-446e-a77a-fd948baca571
SCIP notification number (Poland)	a32bde3d-5397-49aa-b393-a9bb969087e7
SCIP notification number (Romania)	18584576-95ff-459f-bbf4-63af3749f754
SCIP notification number (Sweden)	9e4f1041-0c21-41ca-a4e4-1cb3002f2242

### Approvals / Certificates

#### General approvals



Approval	Standard	Certificate Name
UR Underwriters Laboratories Inc.	UL 1059	E45172

### Downloads

#### Environmental Product Compliance

Compliance Search	<a href="#">↓</a>
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### Documentation

Additional Information			
Technical Section	03.04.2019	pdf 1949.09 KB	<a href="#">↓</a>
		pdf 535.32 KB	<a href="#">↓</a>

### CAD/CAE-Data

CAD data



## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Female connector/socket



**Item No.:** [713-1117/107-000](#)

1-conductor female connector, 2-row; CA-GE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 34-pole; 100% protected against mismatching; Screw flange; 1,50 mm<sup>2</sup>; black

## 1.2 Optional Accessories

### 1.2.1 Coding

#### 1.2.1.1 Coding

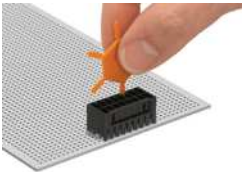


**Item No.:** [714-101](#)

Coding key; orange

## Installation Notes

### Coding



Coding a male header by inserting a coding pin.