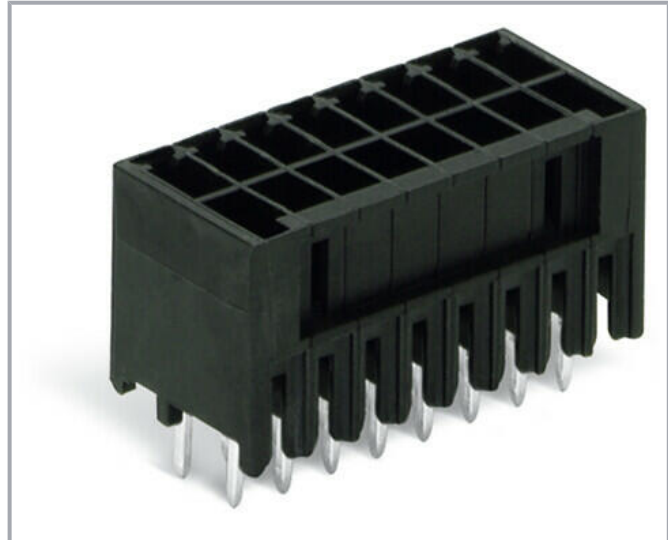
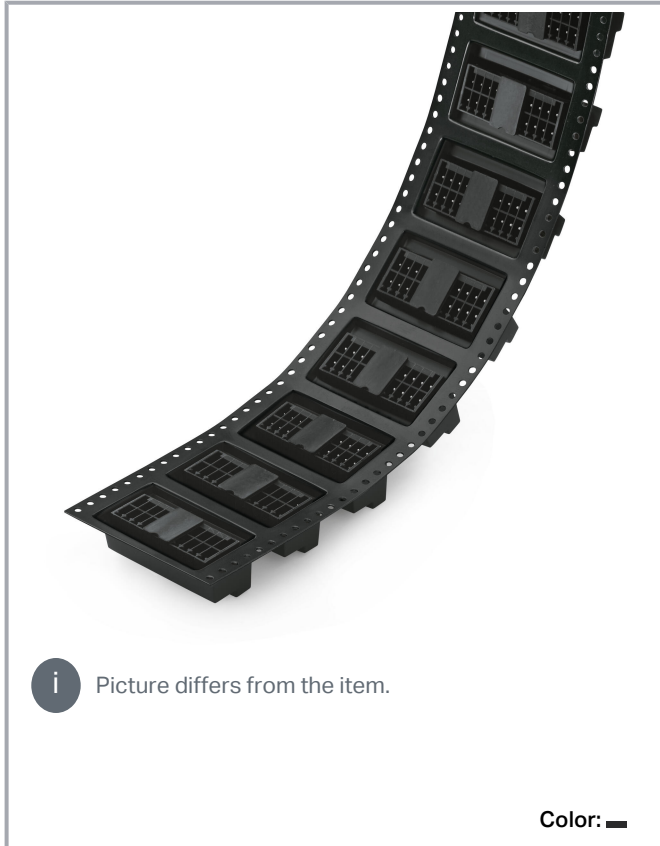


Data sheet | Item number: 713-1403/105-000/997-405

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; 6-pole; black



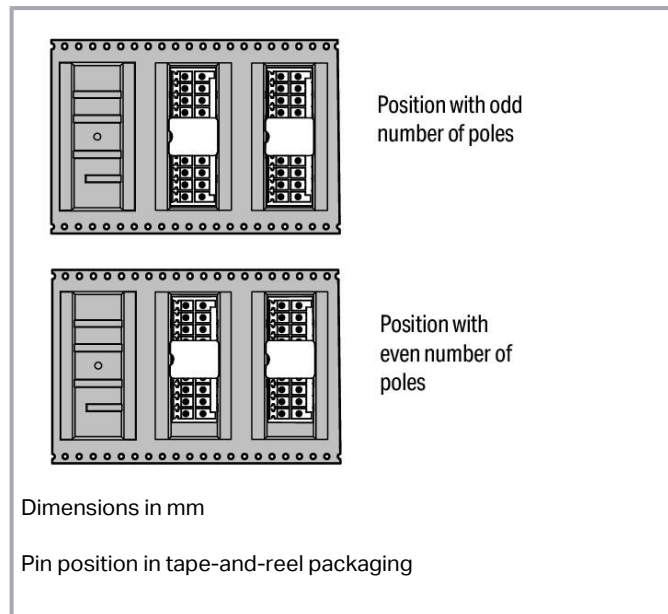
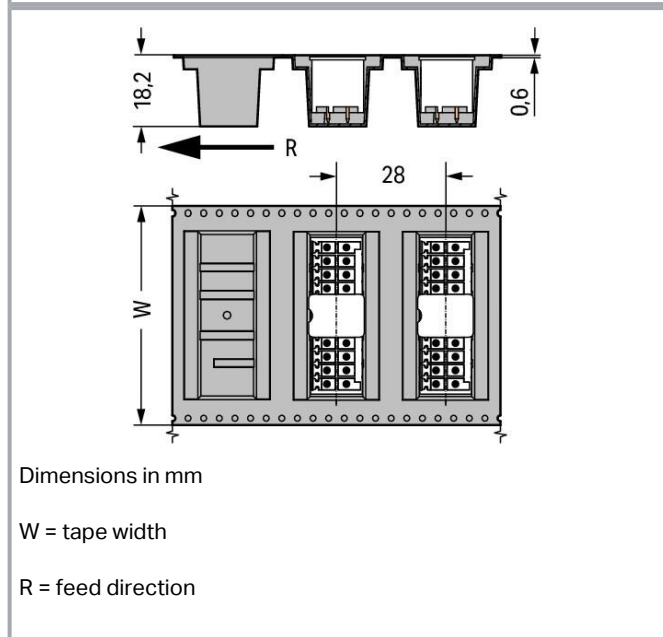
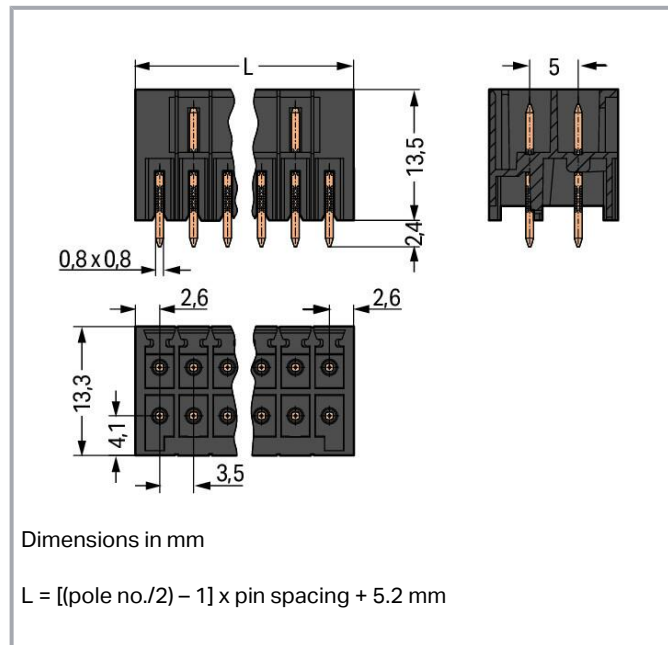
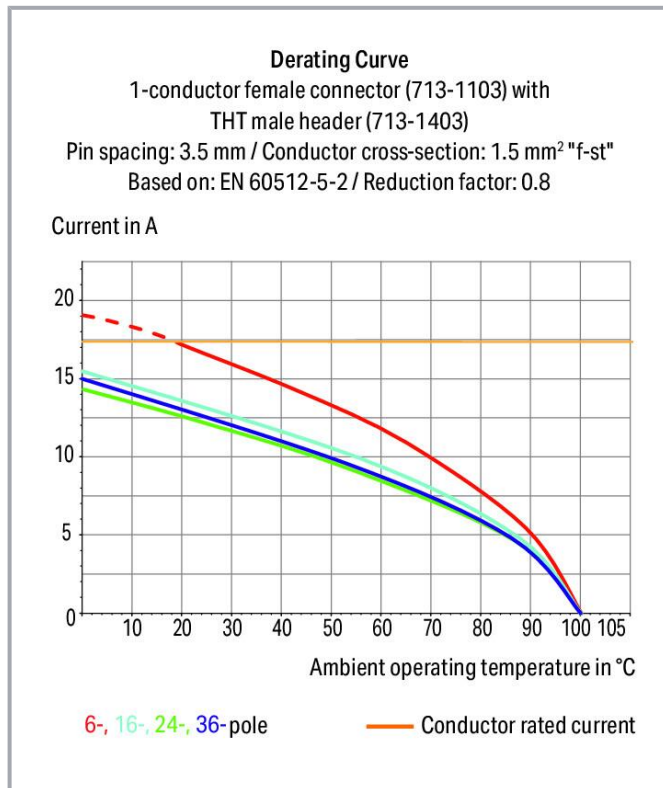
[www.wago.com/713-1403/105-000/997-405](http://www.wago.com/713-1403/105-000/997-405)



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

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### Item description

- THR male headers for reflow soldering in SMT applications

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



- 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 | 6 |
| Number of connection types | 1 |
| Number of levels           | 2 |

## Connection 1

|             |   |
|-------------|---|
| Pole number | 6 |
|-------------|---|

## Physical data

|  |                          |
|--|--------------------------|
| Pin spacing                              | 3.5 mm / 0.138 inches    |
| Width                                    | 12 mm / 0.472 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                               | 32 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   | 90 ° |
| Locking of plug-in connection | none |

**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 <sub>Cu</sub> )                   |
| Contact plating             | Tin  |
| Weight                      | 1.8 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                  | 4055143778220 |
| Customs tariff number | 85366990990   |

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

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## Environmental Product Compliance

RoHS Compliance Status

Compliant, No Exemption

## Counterpart



Item no. 713-1103

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 6-pole; 100% protected against mismatching; 1,50 mm<sup>2</sup>; black

[www.wago.com/713-1103](http://www.wago.com/713-1103)

## Downloads

### Documentation

#### Additional Information

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

## CAD/CAE-Data

### CAD data

|                                       |     |          |
|---------------------------------------|-----|----------|
| 2D/3D Models 713-1403/105-000/997-405 | URL | Download |
|---------------------------------------|-----|----------|

## Environmental Product Compliance

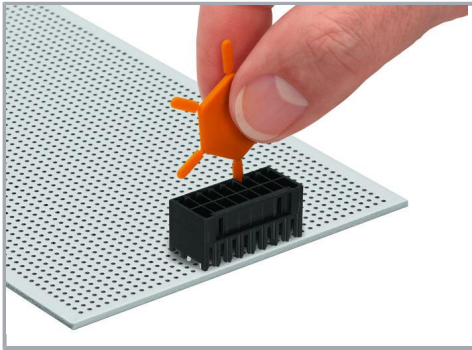
### Compliance Search

|  |     |          |
|--|-----|----------|
| Environmental Product Compliance 713-1403/105-000/997-405  | URL | Download |
| 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; 6-pole; black |     |          |

## Installation Notes

### Coding

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



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!