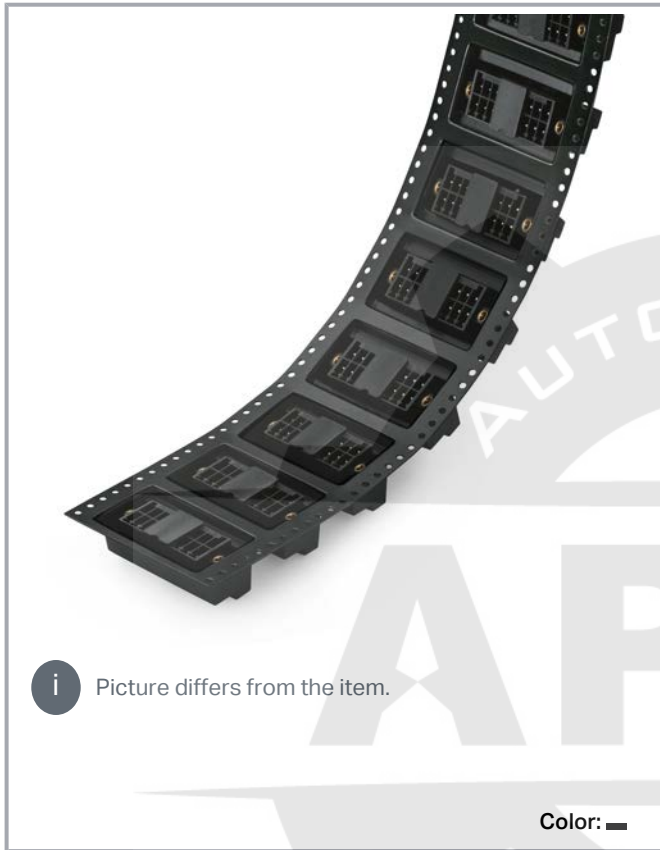


## Data sheet | Item number: 713-1417/117-000/997-409

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

[www.wago.com/713-1417\\_117-000\\_997-409](http://www.wago.com/713-1417_117-000_997-409)

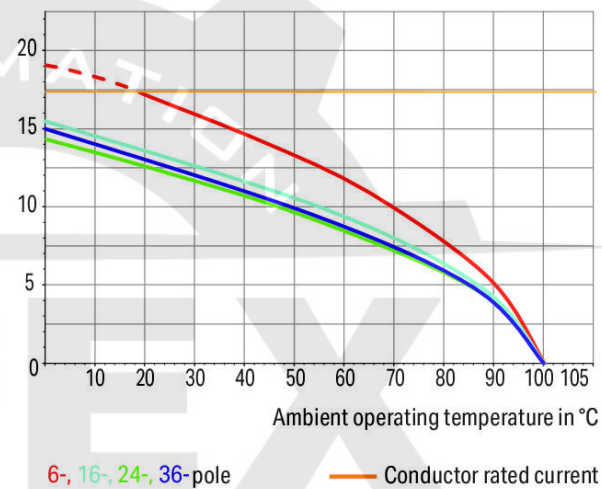


### Derating Curve

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

Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8

Current in A

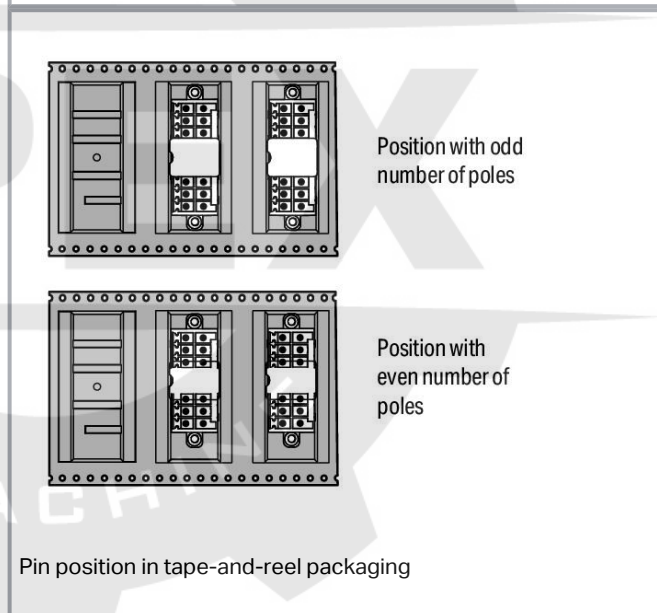
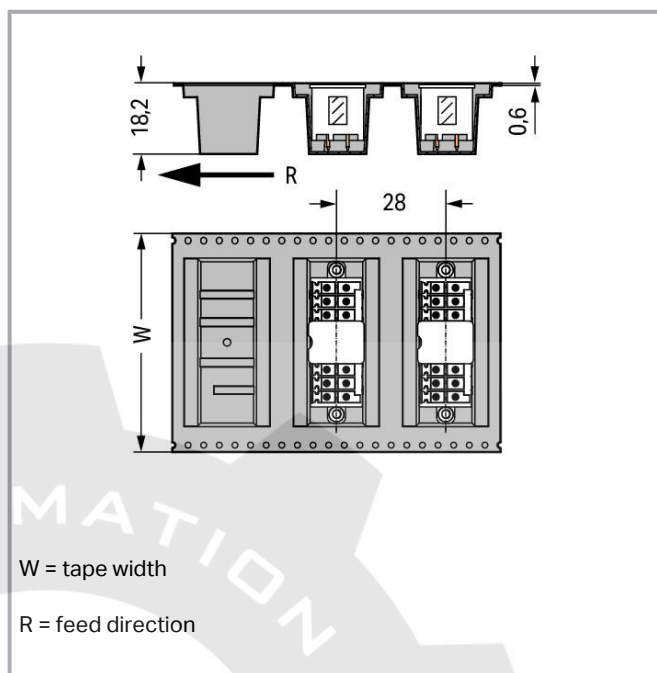
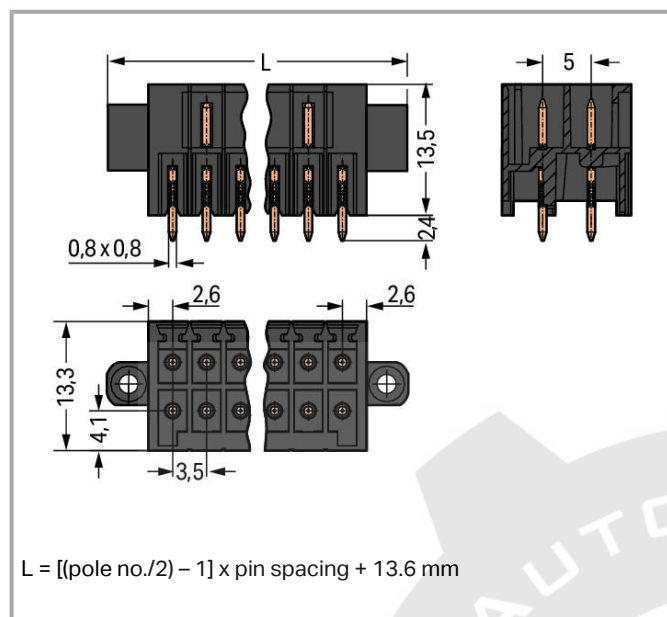


 Picture differs from the item.

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

WAGO Corporation  
Germantown, WI 53022  
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222  
Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

Do you have any questions about our products?  
We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.



## 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 mismatching

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

WAGO Corporation  
Germantown, WI 53022  
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222  
Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

Do you have any questions about our products?  
We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.



- 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) $\triangleq$ 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.                   | 34 |
| Total number of potentials | 34 |
| Number of connection types | 1  |

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

WAGO Corporation  
 Germantown, WI 53022  
 Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222  
 Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

Do you have any questions about our products?  
 We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.



|                  |   |
|------------------|---|
| Number of levels | 2 |
|------------------|---|

## Physical data

|                                          |                          |
|------------------------------------------|--------------------------|
| Pin spacing                              | 3.5 mm / 0.138 inch      |
| Width                                    | 69.6 mm / 2.74 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 <sup>(+0.1)</sup> mm |
| Reel diameter of tape-and-reel packaging | 330 mm                   |
| Tape width                               | 88 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      | 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

|                             |                                        |
|-----------------------------|----------------------------------------|
| 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-plated                             |
| Weight                      | 9 g                                    |

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

WAGO Corporation  
 Germantown, WI 53022  
 Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222  
 Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

Do you have any questions about our products?  
 We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.

## Environmental requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
|-------------------------|-----------------|

## Commercial data

|                       |               |
|-----------------------|---------------|
| Packaging type        | bag           |
| Country of origin     | DE            |
| GTIN                  | 4050821308959 |
| Customs tariff number | 8536694040    |

## Approvals / Certificates

### UL-Approvals

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

## Counterpart



Item no.713-1117/107-000

1-conductor female connector, 2-row; 100% protected against mismatching; Screw flange; 1.5 mm²; Pin spacing 3.5 mm; 34-pole; 1,50 mm²; black

[www.wago.com/713-1117/107-000](http://www.wago.com/713-1117/107-000)

## Optional accessories

### Coding

|                                                                                   |                                         |                                                                |
|-----------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------|
|  | Item no.: 714-101<br>Coding key; orange | <a href="http://www.wago.com/714-101">www.wago.com/714-101</a> |
|-----------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------|

## Downloads

### Documentation

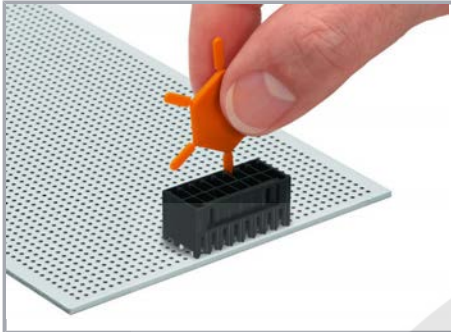
#### Additional Information

|                        |             |                 |          |
|------------------------|-------------|-----------------|----------|
| Technical explanations | Apr 3, 2019 | pdf<br>2.0 MB   | Download |
| THR Soldering Process  |             | pdf<br>548.2 kB | Download |

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

## 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!

WAGO Corporation  
Germantown, WI 53022  
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222  
Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

Do you have any questions about our products?  
We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.