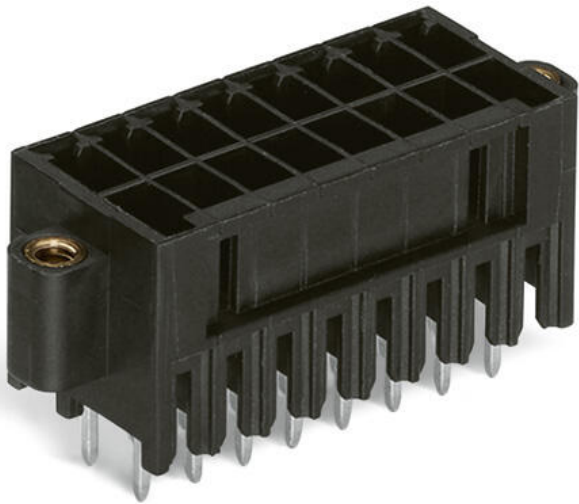


## Data sheet | Item number: 713-1405/107-000

THT male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Threaded flange; Pin spacing 3.5 mm; 10-pole; black

[www.wago.com/713-1405/107-000](http://www.wago.com/713-1405/107-000)



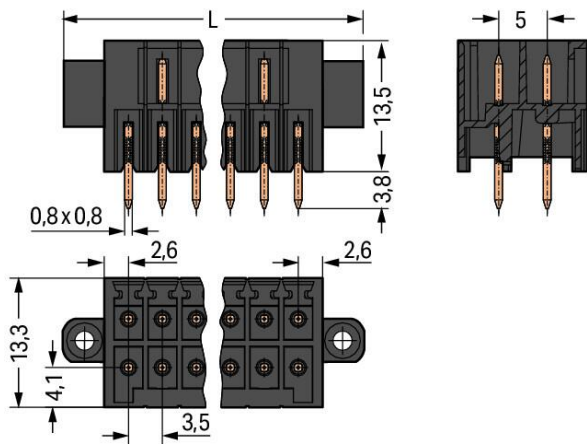
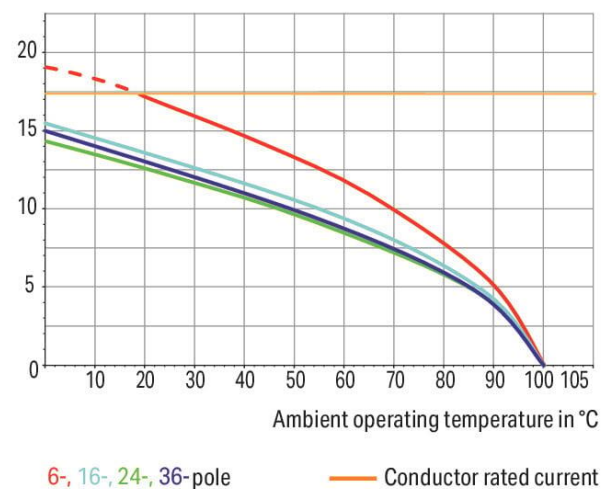
 Picture differs from the item.

Color: 

### Derating Curve

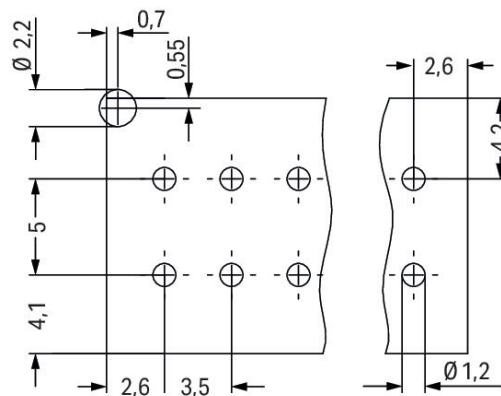
1-conductor female connector (713-1103) with  
THT male header (713-1403)  
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8

Current in A



Dimensions in mm

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



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## Item description

- Male headers may be mounted horizontally or vertically via straight or angled solder pins
- Header housing is molded of THT-compatible insulation material for lead-free reflow soldering
- Separated pin slots prevent damage and make the headers touch-proof when unplugged
- 100% protected against mismating
- 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) ≙ Overvoltage category III / Pollution degree 2 |

### Ratings per UL

|               |         |
|---------------|---------|
| Approvals per | UL 1059 |
|---------------|---------|

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|                                |       |
|--------------------------------|-------|
| 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  |

### 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 | 10 |
| Number of connection types | 1  |
| Number of levels           | 2  |

### Connection 1

|             |    |
|-------------|----|
| Pole number | 10 |
|-------------|----|

### Physical data

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 3.5 mm / 0.138 inches    |
| Width                                | 27.6 mm / 1.087 inches   |
| Height                               | 17.3 mm / 0.681 inches   |
| Height from the surface              | 13.5 mm / 0.531 inches   |
| Depth                                | 13.3 mm / 0.524 inches   |
| Solder pin length                    | 3.8 mm                   |
| Solder pin dimensions                | 0.8 x 0.8 mm             |
| Drilled hole diameter with tolerance | 1.2 <sup>(+0.1)</sup> 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             |

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|                                      |                 |
|--------------------------------------|-----------------|
| Mismating protection                 | Yes             |
| Plugging without loss of pin spacing | No              |
| Mating direction to the PCB          | 90 °            |
| Locking of plug-in connection        | Threaded flange |

## PCB contact

|                                     |                                          |
|-------------------------------------|------------------------------------------|
| PCB contact                         | THT                                      |
| 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                                    |
| Fire load                   | 0.067 MJ                               |
| Weight                      | 3.4 g                                  |

## Environmental requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
| Processing temperature  | -35 ... +60 °C  |

## Commercial data

|                   |                        |
|-------------------|------------------------|
| Product Group     | 3 (Multi Conn. System) |
| eCl@ss 10.0       | 27-44-04-02            |
| eCl@ss 9.0        | 27-44-04-02            |
| ETIM 8.0          | EC002637               |
| ETIM 7.0          | EC002637               |
| ECCN              | NO DATA                |
| PU (SPU)          | 25 pcs                 |
| Packaging type    | box                    |
| Country of origin | PL                     |

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|                       |               |
|-----------------------|---------------|
| GTIN                  | 4045454808945 |
| 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)                                 |
| SCIP notification number (Austria)        | 3d89b270-c750-4435-9689-ee79042c6868 |
| SCIP notification number (Belgium)        | b374bacc-d922-47f8-8d05-9ba361b273b1 |
| SCIP notification number (Bulgaria)       | a453e608-5046-4aa2-ba72-894a09da0e54 |
| SCIP notification number (Czech Republic) | febbdc99-506a-4387-97a0-eb94d6875b99 |
| SCIP notification number (Denmark)        | b09d83fe-1306-42d4-8e08-fb4a51259fd0 |
| SCIP notification number (Finland)        | 74a50bfc-eb92-4e02-b69f-47854c2a2023 |
| SCIP notification number (France)         | a41d1a70-ccac-4513-bc50-7cb7de3fb5a5 |
| SCIP notification number (Germany)        | 495797e1-0018-4fac-a0bd-eacbf9a6af0a |
| SCIP notification number (Hungary)        | a2ee7907-6f99-41ca-b5d2-47481cfd57ab |
| SCIP notification number (Italy)          | d4b869fe-58c3-4e4e-902e-114d5a24a57d |
| SCIP notification number (Netherlands)    | 65ed8d2c-3450-484a-b00b-0b7e99f70166 |
| SCIP notification number (Poland)         | 585b449f-e02b-4f1b-94fa-359ce7155186 |
| SCIP notification number (Romania)        | ef334241-3592-4267-bd68-2fc7ee73bc93 |
| SCIP notification number (Sweden)         | 166b8f11-660d-44d9-ac71-d05caaba0a49 |

## Approvals / Certificates

### General approvals

| Logo                                                                               | Approval                                     | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------|------------------|
|                                                                                    | <b>CB</b><br>DEKRA Certification B.V.        | IEC 61984                | NL-102427        |
|  | <b>CSA</b><br>CSA Group                      | C22.2                    | 2315087          |
|  | <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 61984                 | 71-126089        |
|                                                                                    | <b>UR</b><br>Underwriters Laboratories Inc.  | UL 1059                  | E45172           |

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## Counterpart



### Item no.713-1105/107-000

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; 100% protected against mismatching; Screw flange; 1,50 mm²; black

[www.wago.com/713-1105/107-000](http://www.wago.com/713-1105/107-000)



### Item no.713-1105/107-000/036-000

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; 100% protected against mismatching; Screw flange; Strain relief plate; 1,50 mm²; black

[www.wago.com/713-1105/107-000/036-000](http://www.wago.com/713-1105/107-000/036-000)



### Item no.713-1105/107-047

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; 100% protected against mismatching; Screw flange; direct marking; 1,50 mm²; black

[www.wago.com/713-1105/107-047](http://www.wago.com/713-1105/107-047)



### Item no.713-1105/107-9037

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; 100% protected against mismatching; Screw flange; direct marking; 1,50 mm²; black

[www.wago.com/713-1105/107-9037](http://www.wago.com/713-1105/107-9037)



### Item no.713-1105/107-9037/032-000

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; 100% protected against mismatching; Screw flange; Strain relief plate; direct marking; 1,50 mm²; black

[www.wago.com/713-1105/107-9037/032-000](http://www.wago.com/713-1105/107-9037/032-000)

## Optional accessories

### Coding

Coding



Item no.: 714-101  
Coding key; orange

[www.wago.com/714-101](http://www.wago.com/714-101)

## Downloads

### Documentation

#### Additional Information

Technical Section

2019 年4月3日

pdf

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Technical explanations

2.1 MB

## CAD/CAE-Data

### CAD data

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2D/3D Models 713-1405/107-000

URL

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**PCB Design**

Symbol and Footprint via Ultra Librarian 713-1405/107-000

URL

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CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

Supported formats:

- Accel EDA 14 & 15
- Altair
- Altium 6 to current version
- Autodesk Fusion 360
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics
- BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design
- Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000
- Zuken eCADSTAR 2020 and 2021Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

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Symbol and Footprint via SamacSys 713-1405/107-000  
CAx data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

Supported formats:

- 3D (stp)
- Altium
- CADSTAR
- Capture
- CircuitStudio
- CR-5000
- CR-8000
- DEHDL
- DesignSpark PCB
- DesignSpark PCB PRO
- DipTrace
- EAGLE
- Easy-PC
- EasyEDA
- eCADSTAR
- KiCad
- OrCAD\_Allegro16
- PADS
- Proteus
- Pulsonix
- Quadcept
- SOLIDWORKS PCB
- TARGET 3001!
- xDX Designer
- Xpedition

PCB Component Libraries (EDA), PCB CAD Library SamacSys Electronic Component Search Engine

CAE data

|                               |                     |                          |
|-------------------------------|---------------------|--------------------------|
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|-------------------------------|---------------------|--------------------------|

Asset Administration Shell

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Asset Administration Shell 713-1405/107-000

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 713-1405/107-000

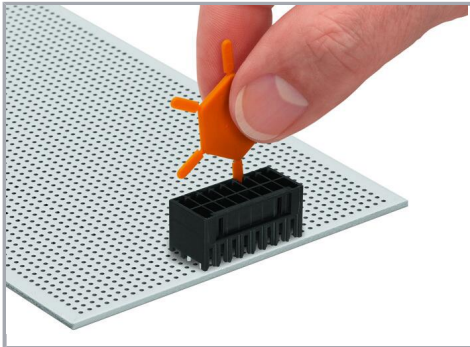
[URL](#)

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THT male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Threaded flange; Pin spacing 3.5 mm; 10-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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