

Color: —

#### Derating Curve

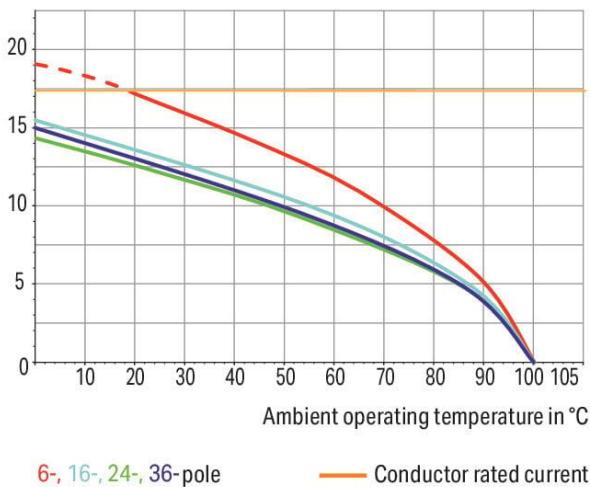
1-conductor female connector (713-1103) with

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



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

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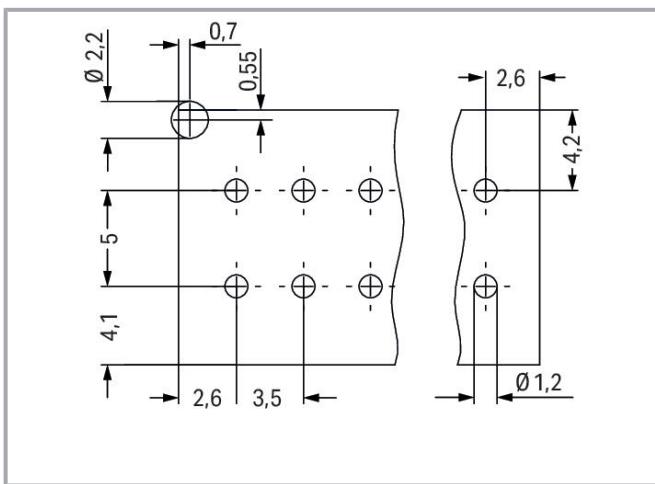
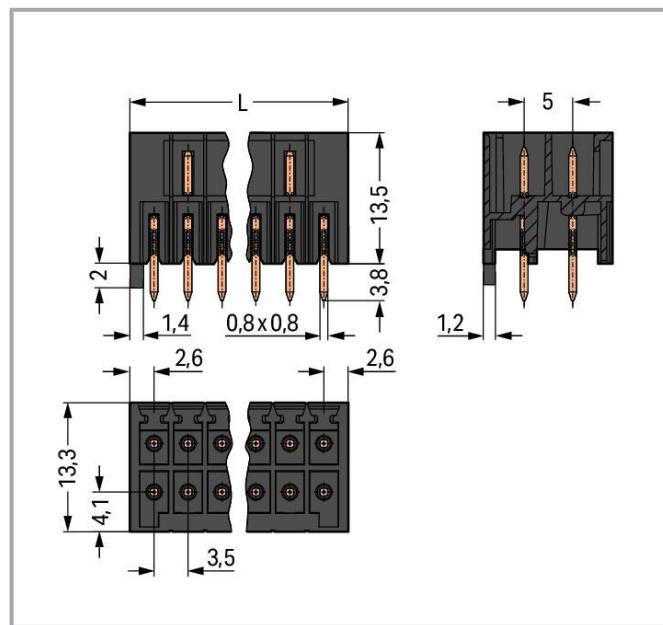
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## Item description

- 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 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

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

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## 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) $\triangleq$ Overvoltage category III / Pollution degree 2 |

## Ratings per UL

| 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    |

## 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 | 16 |
| Number of connection types | 1  |
| Number of levels           | 2  |

## Connection 1

|             |    |
|-------------|----|
| Pole number | 16 |
|-------------|----|

## Physical data

|             |                        |
|-------------|------------------------|
| Pin spacing | 3.5 mm / 0.138 inches  |
| Width       | 29.5 mm / 1.161 inches |
| Height      | 17.3 mm / 0.681 inches |

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

|                                      |                          |
|--------------------------------------|--------------------------|
| 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             |
| Mismating protection                 | Yes                 |
| Plugging without loss of pin spacing | No                  |
| Mating direction to the PCB          | 90 °                |
| Locking of plug-in connection        | none                |

## 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                   | 0.088 MJ                               |
| Weight                      | 4.3 g                                  |

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## 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               |
| PU (SPU)              | 25 pcs                 |
| Packaging type        | box                    |
| Country of origin     | PL                     |
| GTIN                  | 4045454667405          |
| Customs tariff number | 85366930000            |

## Environmental Product Compliance

|                        |                         |
|------------------------|-------------------------|
| RoHS Compliance Status | Compliant, No Exemption |
|------------------------|-------------------------|

## Approvals / Certificates

### General approvals

| Logo   | Approval                             | Additional Approval Text | Certificate name |
|--|--------------------------------------|--------------------------|------------------|
|  | CSA<br>CSA Group                     | C22.2                    | 2315087          |
|  | UR<br>Underwriters Laboratories Inc. | UL 1059                  | E45172           |

## Counterpart



Item no. 713-1108

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 16-pole; 100% protected against mismatching; 1,50 mm²; black

www.wago.com  
/713-1108

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

## 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

2019 Apr 3

pdf  
2.1 MB

Download

## CAD/CAE-Data

### CAD data

2D/3D Models 713-1468

URL Download

### PCB Design

Symbol and Footprint via Ultra Librarian 713-1468

URL Download

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

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- 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

##### Symbol and Footprint via SamacSys 713-1468

[URL](#) [Download](#)

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

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

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- 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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|                       |                     |                          |
|-----------------------|---------------------|--------------------------|
| ZUKEN Portal 713-1468 | <a href="#">URL</a> | <a href="#">Download</a> |
|-----------------------|---------------------|--------------------------|

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#### Asset Administration Shell

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|                                     |                     |                          |
|-------------------------------------|---------------------|--------------------------|
| Asset Administration Shell 713-1468 | <a href="#">URL</a> | <a href="#">Download</a> |
|-------------------------------------|---------------------|--------------------------|

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#### Environmental Product Compliance

##### Compliance Search

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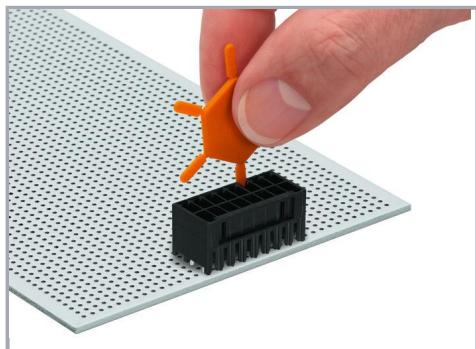
|  |                     |                          |
|--|---------------------|--------------------------|
| Environmental Product Compliance 713-1468  | <a href="#">URL</a> | <a href="#">Download</a> |
| THT male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; with orientation nose; Pin spacing 3.5 mm; 16-pole; black |                     |                          |

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#### 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!

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