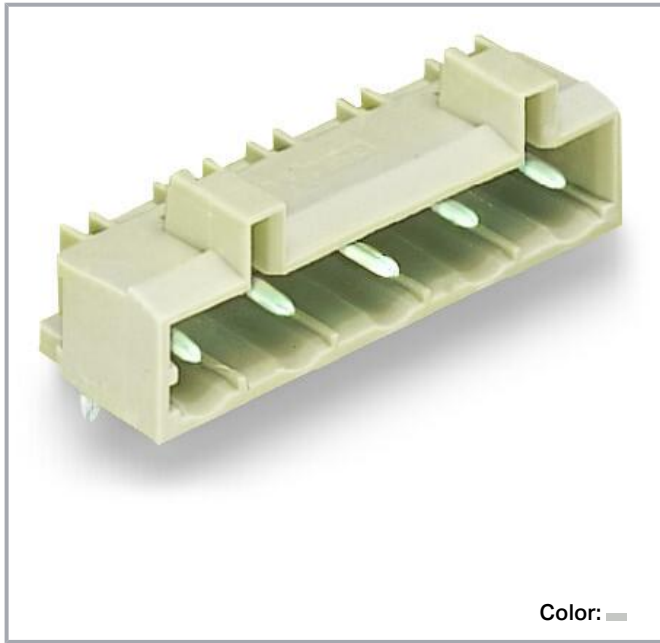


**Data sheet | Item number: 721-835/001-040**

THT male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Preceding ground contact; Pin spacing 7.5 mm; 5-pole; light gray

[www.wago.com/721-835/001-040](http://www.wago.com/721-835/001-040)

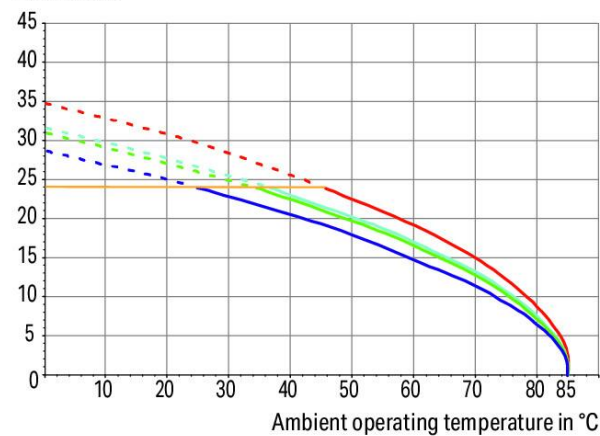


Color:

**Derating Curve**

1-conductor female connector (721-202/026-000) with  
THT male header (721-862/001-000)  
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8

Current in A



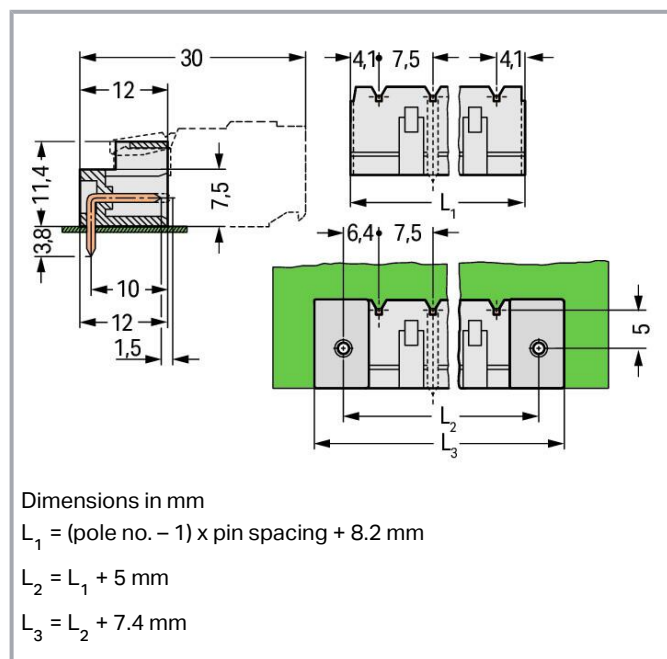
2-, 4-, 6-, 12- pole

Conductor rated current

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

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## Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismatching
- With coding fingers

## 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  
3.8 mm pin projection for male headers with straight solder pins  
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)       | 500 V                                                                |
| Rated impulse voltage (III/3) | 6 kV                                                                 |
| Rated voltage (III/2)         | 630 V                                                                |
| Rated impulse voltage (III/2) | 6 kV                                                                 |
| Nominal voltage (II/2)        | 1000 V                                                               |
| Rated surge voltage (II/2)    | 6 kV                                                                 |
| Rated current                 | 12 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) | 300 V   |
| Rated current UL (Use Group B) | 15 A    |
| Rated voltage UL (Use Group D) | 300 V   |
| Rated current UL (Use Group D) | 10 A    |

## Ratings per UL 1977

|                         |       |
|-------------------------|-------|
| Rated voltage (UL 1977) | 600 V |
| Rated current UL 1977   | 10 A  |

## Ratings per CSA

|                                 |       |
|---------------------------------|-------|
| Approvals per                   | CSA   |
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 15 A  |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 10 A  |

## Connection data

|                            |                      |
|----------------------------|----------------------|
| Total number of potentials | 5                    |
| Number of connection types | 1                    |
| Number of levels           | 1                    |
| PE function                | Preceding PE contact |

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



## Connection 1

|             |   |
|-------------|---|
| Pole number | 5 |
|-------------|---|

## Physical data

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 7.5 mm / 0.295 inches    |
| Width                                | 38.2 mm / 1.504 inches   |
| Height                               | 15.2 mm / 0.598 inches   |
| Height from the surface              | 11.4 mm / 0.449 inches   |
| Depth                                | 12 mm / 0.472 inches     |
| Solder pin length                    | 3.8 mm                   |
| Solder pin dimensions                | 1 x 1 mm                 |
| Drilled hole diameter with tolerance | 1.4 <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          | 0 °                 |
| 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                | light gray                                               |
| Material group       | I                                                        |

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



|                             |                                        |
|-----------------------------|----------------------------------------|
| Insulation material         | Polyamide (PA66)                       |
| Flammability class per UL94 | V0                                     |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | Tin                                    |
| Fire load                   | 0.044 MJ                               |
| Weight                      | 2.2 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               |
| PU (SPU)              | 100 pcs                |
| Packaging type        | box                    |
| Country of origin     | PL                     |
| GTIN                  | 4044918869980          |
| Customs tariff number | 85366930000            |

## Environmental Product Compliance

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

## Approvals / Certificates

### General approvals

| Logo                                                                               | Approval                                     | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------|------------------|
|                                                                                    | <b>CB</b><br>DEKRA Certification B.V.        | IEC 61984                | NL-39756 /A1     |
|  | <b>CSA</b><br>CSA Group                      | C22.2                    | 1466354          |
|                                                                                    | <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 61984                 | 71-<br>121453    |

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



|                                                                                  |                                |         |         |
|----------------------------------------------------------------------------------|--------------------------------|---------|---------|
|  | UR                             | UL 1059 | E45172  |
|                                                                                  | Underwriters Laboratories Inc. |         |         |
|  | UR                             | UL 1977 | E 45171 |
|                                                                                  | Underwriters Laboratories Inc. |         |         |

#### Declarations of conformity and manufacturer's declarations

| Logo                                                                             | Approval                      | Additional Approval Text | Certificate name |
|----------------------------------------------------------------------------------|-------------------------------|--------------------------|------------------|
|  | Railway<br>WAGO GmbH & Co. KG | -                        | Railway Ready    |

#### Approvals for marine applications

| Logo                                                                               | Approval                           | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|------------------------------------|--------------------------|------------------|
|  | ABS<br>American Bureau of Shipping | -                        | 19-HG1869876-PDA |
|  | BV<br>Bureau Veritas S.A.          | IEC 60998                | 11915/D0 BV      |

#### Counterpart



Item no.721-205/026-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 5-pole; 100% protected against mismatching; 2,50 mm²; light gray

[www.wago.com/721-205/026-000](http://www.wago.com/721-205/026-000)

#### Optional accessories

##### Marking accessories

Marking strip

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

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**Item no.: 210-833**  
Marking strips; 25 m on roll; 6 mm wide; plain; Self-adhesive; white

[www.wago.com/210-833](http://www.wago.com/210-833)



**Item no.: 210-834**  
Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white

[www.wago.com/210-834](http://www.wago.com/210-834)

Coding

Coding



**Item no.: 231-130**  
Coding key; snap-on type; light gray

[www.wago.com/231-130](http://www.wago.com/231-130)

Downloads

Documentation

Additional Information

2019 Apr 3

pdf  
2.1 MB

Download

CAD/CAE-Data

CAD data

2D/3D Models 721-835/001-040

URL

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CAE data

EPLAN Data Portal 721-835/001-040

URL

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ZUKEN Portal 721-835/001-040

URL

Download

EPLAN Data Portal 721-835/001-040

URL

Download

PCB Design

Symbol and Footprint via Ultra Librarian 721-835/001-040

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

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

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- 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

Symbol and Footprint via SamacSys 721-835/001-040

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

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

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- DEHDL
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- 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

Asset Administration Shell

|                                            |     |          |
|--------------------------------------------|-----|----------|
| Asset Administration Shell 721-835/001-040 | URL | Download |
|--------------------------------------------|-----|----------|

Environmental Product Compliance

Compliance Search

|                                                                                                                                                        |     |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|
| Environmental Product Compliance 721-835/001-040                                                                                                       | URL | Download |
| THT male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Preceding ground contact; Pin spacing 7.5 mm; 5-pole; light gray |     |          |

Installation Notes

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## Product family

### MCS MIDI

[Show all products from the family](#)

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