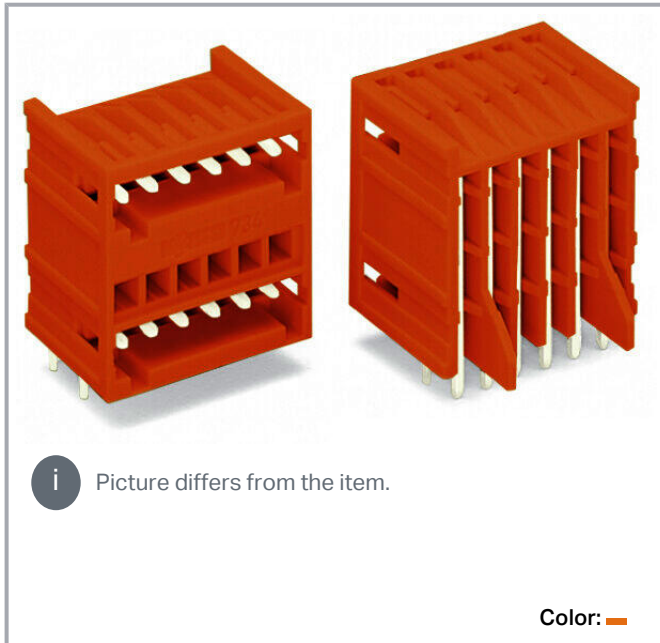


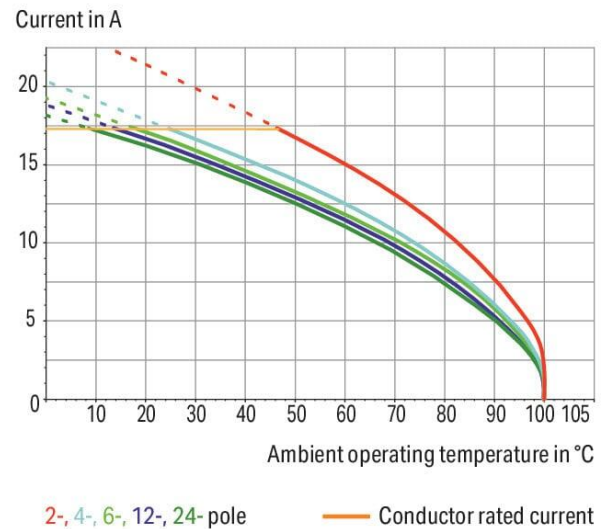
## Data sheet | Item number: 734-440/001-000

THT double-deck male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismating; Pin spacing 3.81 mm; 20-pole; orange

[www.wago.com/734-440/001-000](http://www.wago.com/734-440/001-000)



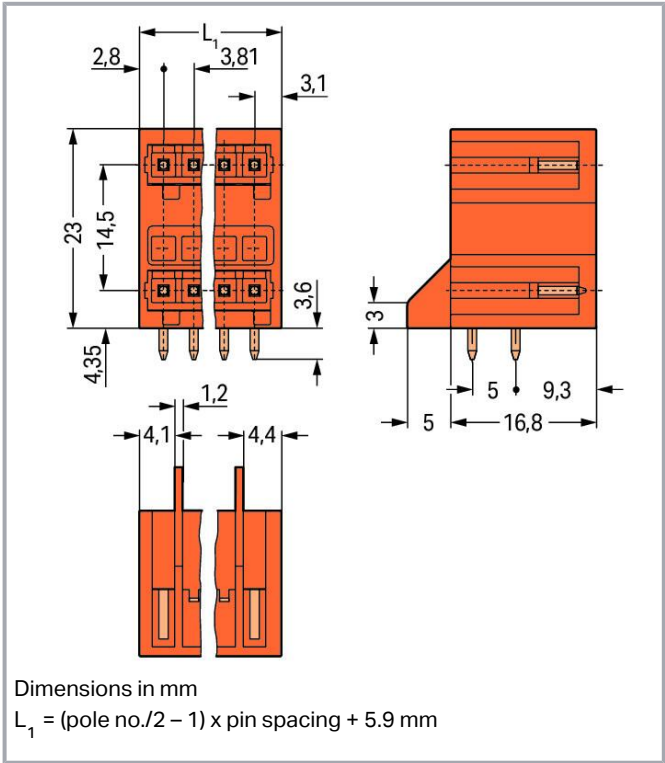
**Derating Curve**  
1-conductor female connector (734-102) with  
THT male header (734-162)  
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8



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
- 100% protected against mismating; only mating halves with the same number of poles can be connected together
- 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  
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/>.

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

## Electrical data

### Ratings per IEC/EN

| Ratings per                   | IEC/EN 60664-1                                                       |
|-------------------------------|----------------------------------------------------------------------|
| Nominal voltage (III/3)       | 160 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)        | 320 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) | 300 V   |
| Rated current UL (Use Group B) | 10 A    |
| Rated voltage UL (Use Group D) | 300 V   |
| Rated current UL (Use Group D) | 10 A    |

### Ratings per CSA

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

## Connection data

|                            |    |
|----------------------------|----|
| Total number of potentials | 20 |
| Number of connection types | 1  |
| Number of levels           | 2  |

### Connection 1

|             |    |
|-------------|----|
| Pole number | 20 |
|-------------|----|

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



## Physical data

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 3.81 mm / 0.15 inches    |
| Width                                | 40.19 mm / 1.582 inches  |
| Height                               | 26.6 mm / 1.047 inches   |
| Height from the surface              | 23 mm / 0.906 inches     |
| Depth                                | 21.8 mm / 0.858 inches   |
| Solder pin length                    | 3.6 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                       | orange                                                   |
| Material group              | I                                                        |
| Insulation material         | Polyamide (PA66)                                         |
| Flammability class per UL94 | V0                                                       |

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|                  |                                        |
|------------------|----------------------------------------|
| Contact material | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating  | Tin                                    |
| Fire load        | 0.212 MJ                               |
| Weight           | 11.7 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)              | 50 pcs                 |
| Packaging type        | box                    |
| Country of origin     | DE                     |
| GTIN                  | 4044918873383          |
| Customs tariff number | 85366930000            |

## Environmental Product Compliance

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

## Approvals / Certificates

### General approvals

| Logo                                                                               | Approval                        | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|---------------------------------|--------------------------|------------------|
|                                                                                    | CB<br>DEKRA Certification B.V.  | EN 61984                 | NL-54190         |
|  | CCC<br>CQC                      | GB/T 13140.1             | CQC03003003013   |
|  | CSA<br>DEKRA Certification B.V. | C22.2                    | 1465035          |

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

|                                                                                  |                                       |          |           |
|----------------------------------------------------------------------------------|---------------------------------------|----------|-----------|
|  | KEMA/KEUR<br>DEKRA Certification B.V. | EN 61984 | 71-105522 |
|  | UL<br>Underwriters Laboratories Inc.  | UL 1977  | E 45171   |
|  | UR<br>Underwriters Laboratories Inc.  | UL 1059  | E45172    |

## Approvals for marine applications

| Logo                                                                             | Approval         | Additional Approval Text | Certificate name |
|----------------------------------------------------------------------------------|------------------|--------------------------|------------------|
|  | DNV<br>DNV GL SE | -                        | TAE000016Z       |

## Counterpart



## Item no. 734-210

1-conductor female connector; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.81 mm; 10-pole; 100% protected against mismatching; 1,50 mm²; orange

[www.wago.com/734-210](http://www.wago.com/734-210)

## Optional accessories

| Coding                                                                             | Item no.: 734-159                                        | www.wago.com/734-159 |
|------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------|
| Coding                                                                             | Coding key; to be snapped above top level; black         |                      |
|  | Item no.: 734-400                                        | www.wago.com/734-400 |
|                                                                                    | Coding key; to be snapped above bottom level; light gray |                      |
|  | Item no.: 734-130                                        | www.wago.com/734-130 |
|                                                                                    | Coding key; to be snapped above top level; white         |                      |

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



## Downloads

### Documentation

#### Additional Information

|                        |            |        |          |
|------------------------|------------|--------|----------|
| Technical Section      | 2019 年4月3日 | pdf    | Download |
| Technical explanations |            | 2.1 MB |          |

## CAD/CAE-Data

### CAD data

|                              |     |          |
|------------------------------|-----|----------|
| 2D/3D Models 734-440/001-000 | URL | Download |
|------------------------------|-----|----------|

### CAE data

|                                   |     |          |
|-----------------------------------|-----|----------|
| EPLAN Data Portal 734-440/001-000 | URL | Download |
|-----------------------------------|-----|----------|

|                              |     |          |
|------------------------------|-----|----------|
| ZUKEN Portal 734-440/001-000 | URL | Download |
|------------------------------|-----|----------|

|                                   |     |          |
|-----------------------------------|-----|----------|
| EPLAN Data Portal 734-440/001-000 | URL | Download |
|-----------------------------------|-----|----------|

### PCB Design

|                                                          |     |          |
|----------------------------------------------------------|-----|----------|
| Symbol and Footprint via Ultra Librarian 734-440/001-000 | 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

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



- 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 734-440/001-000

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

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





- 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 734-440/001-000 | URL | Download |
|--------------------------------------------|-----|----------|

Environmental Product Compliance

Compliance Search

|                                                                                                                                        |     |          |
|----------------------------------------------------------------------------------------------------------------------------------------|-----|----------|
| Environmental Product Compliance 734-440/001-000                                                                                       | URL | Download |
| THT double-deck male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.81 mm; 20-pole; orange |     |          |

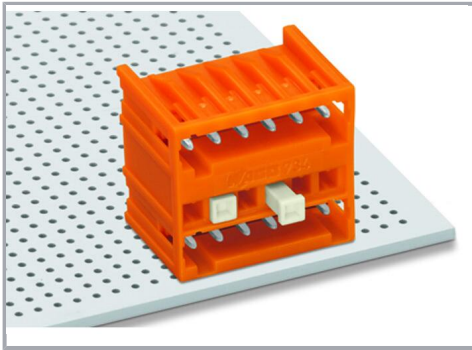
Installation Notes

Coding

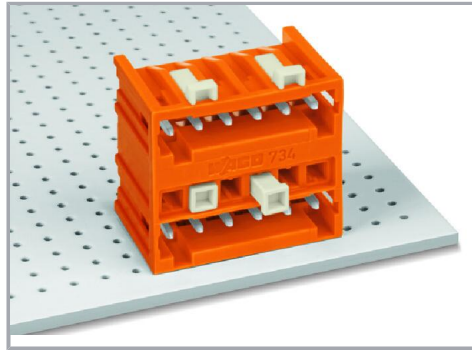
Subject to changes. Please also observe the further product documentation!

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Coding a THT double-deck male header – lower level.



Coding a THT double-deck male header.

## Product family

### MCS MINI

[Show all products from the family](#)

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