

Data sheet | Item number: 733-338/105-604

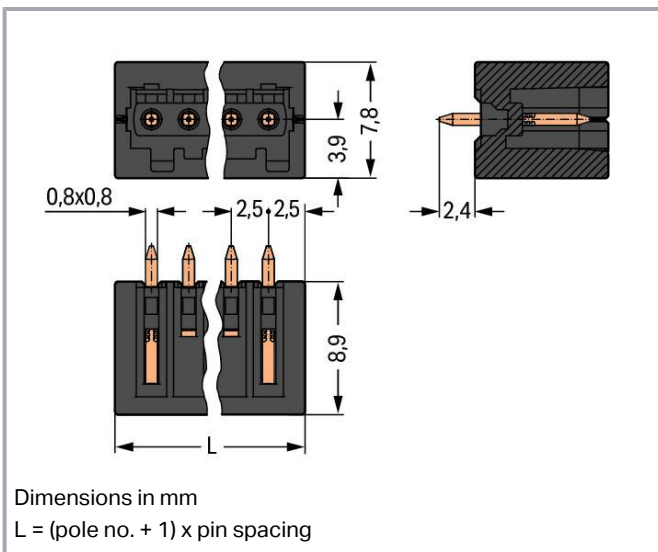
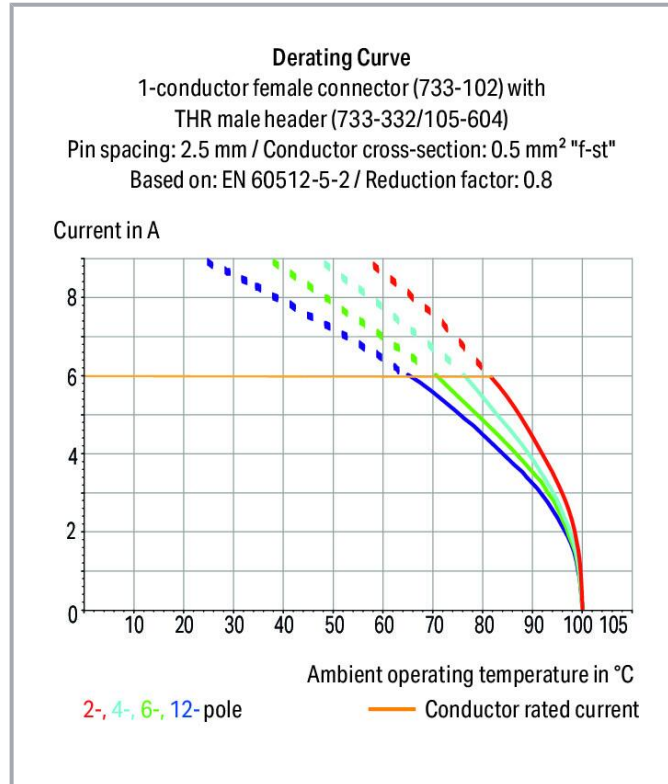
THR male header; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 2.5 mm; 8-pole; black



www.wago.com/733-338/105-604



Color: ■



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

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Item description

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Optimal thermal penetration via pin enclosure design provides lower soldering temperatures
- 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

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) | 320 V |
| Rated surge voltage (II/2) | 2.5 kV |
| Rated current | 6 A |
| Legend (ratings) | (III / 2) ≙ Overvoltage category III / Pollution degree 2 |

Ratings per UL

| | |
|--------------------------------|---------|
| Approvals per | UL 1059 |
| Rated voltage UL (Use Group B) | 150 V |

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| | |
|--------------------------------|-----|
| Rated current UL (Use Group B) | 4 A |
|--------------------------------|-----|

Ratings per CSA

| | |
|---------------------------------|-------|
| Approvals per | CSA |
| Rated voltage CSA (Use Group B) | 150 V |
| Rated current CSA (Use Group B) | 4 A |

Connection data

| | |
|----------------------------|---|
| Total number of potentials | 8 |
| Number of connection types | 1 |
| Number of levels | 1 |

Connection 1

| | |
|-------------|---|
| Pole number | 8 |
|-------------|---|

Physical data

| | |
|------------------------------------|--------------------------|
| Pin spacing | 2.5 mm / 0.098 inches |
| Width | 22.5 mm / 0.886 inches |
| Height | 11.3 mm / 0.445 inches |
| Height from the surface | 8.9 mm / 0.35 inches |
| Depth | 7.8 mm / 0.307 inches |
| Solder pin length | 2.4 mm |
| Solder pin dimensions | 0.8 x 0.8 mm |
| Plated through-hole diameter (THR) | 1.2 ^(+0.1) 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 ° |

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



PCB contact

| | |
|-------------------------------------|--|
| PCB contact | THR |
| 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 _{Cu}) |
| Contact plating | Tin |
| Fire load | 0.024 MJ |
| Weight | 1.1 g |
| MSL per J-STD 020D | 1 |

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) | 200 pcs |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4045454676131 |
| Customs tariff number | 85366930000 |

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Environmental Product Compliance

RoHS Compliance Status



Compliant, No Exemption

Approvals / Certificates

General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|--------------------------------------|--------------------------|------------------|
| | CCA DEKRA Certification B.V. | IEC 61984 | NL-31141 |
|  | CCA DEKRA Certification B.V. | EN 61984 | 2169534.01 |
|  | CSA DEKRA Certification B.V. | C22.2 | 1465035 |
|  | UL UL International Germany GmbH | UL 1977 | E45171 |
|  | UL Underwriters Laboratories Inc. | UL 1059 | E45172 |

Approvals for marine applications

| Logo | Approval | Additional Approval Text | Certificate name |
|--|------------------------------------|--------------------------|--------------------------|
|  | ABS American Bureau of Shipping | - | 19- HG1869876- PDA |
|  | DNV DNV GL SE | - | TAE000016Z |

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Counterpart



Item no.733-108

1-conductor female connector; CAGE CLAMP®; 0.5 mm²; Pin spacing 2.5 mm; 8-pole; 100% protected against mismatching; 0,50 mm²; light gray

www.wago.com/733-108

Optional accessories

Coding

Coding



Item no.: 733-331

Coding key; snap-on type; black

www.wago.com/733-331

Downloads

Documentation

Additional Information

| | | | |
|------------------------|------------|----------|----------|
| Technical Section | 2019 Apr 3 | pdf | Download |
| Technical explanations | | 2.1 MB | |
| THR Soldering Process | | pdf | Download |
| | | 548.2 kB | |

CAD/CAE-Data

CAD data

| | | |
|------------------------------|-----|----------|
| 2D/3D Models 733-338/105-604 | URL | Download |
|------------------------------|-----|----------|

CAE data

| | | |
|------------------------------|-----|----------|
| ZUKEN Portal 733-338/105-604 | URL | Download |
|------------------------------|-----|----------|

Asset Administration Shell

| | | |
|--|-----|----------|
| Asset Administration Shell 733-338/105-604 | URL | Download |
|--|-----|----------|

PCB Design

| | | |
|--|-----|----------|
| Symbol and Footprint via Ultra Librarian 733-338/105-604 | 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.

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



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

Symbol and Footprint via SamacSys 733-338/105-604

[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

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- 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

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 733-338/105-604

[URL](#)

[Download](#)

THR male header; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 2.5 mm; 8-pole; black

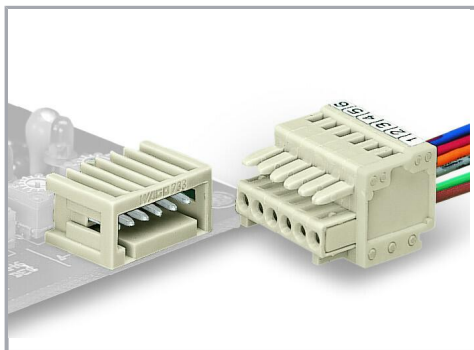
Installation Notes

Mismatching protection

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

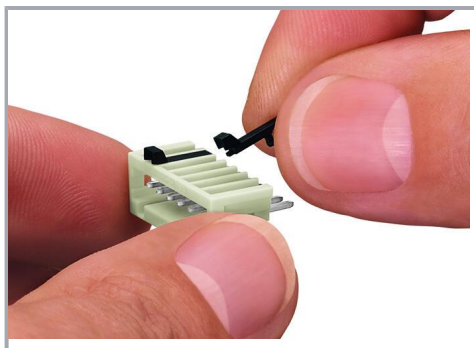
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Male headers and female connectors are 100% protected against mismatching. Only mating halves with the same pole number can be connected.

Coding



Coding a male header – fitting coding key(s).

Product family

MCS MICRO

[Show all products from the family](#)

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