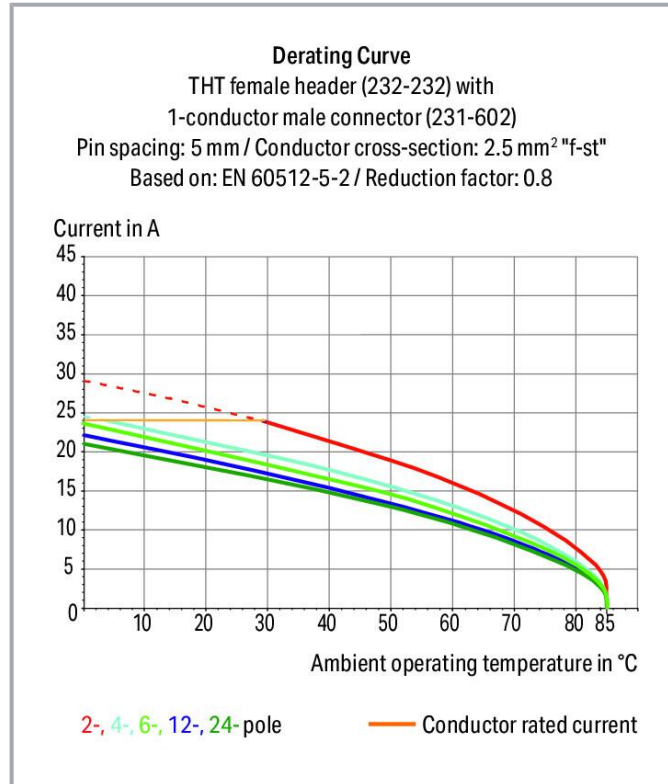


Data sheet | Item number: 232-270

THT female header; angled; Pin spacing 5.08 mm; 10-pole; 0.6 x 1.0 mm solder pin; orange



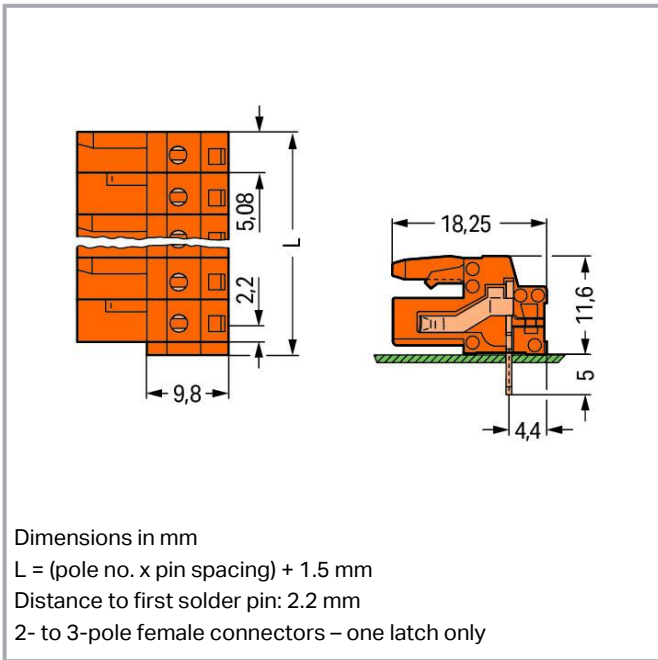
www.wago.com/232-270



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
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- 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/>.

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) | 320 V |
| Rated impulse voltage (III/3) | 4 kV |
| Rated voltage (III/2) | 320 V |
| Rated impulse voltage (III/2) | 4 kV |
| Nominal voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |
| Rated current | 12 A |
| Legend (ratings) | (III / 2) $\hat{=}$ 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 | 15 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

| | |
|----------------------------|----|
| Connection points | 10 |
| Total number of potentials | 10 |
| Number of connection types | 1 |
| Number of levels | 1 |

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



Connection 1

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

Physical data

| | |
|--------------------------------------|--------------------------|
| Pin spacing | 5.08 mm / 0.2 inches |
| Width | 52.3 mm / 2.059 inches |
| Height | 16.6 mm / 0.654 inches |
| Height from the surface | 11.6 mm / 0.457 inches |
| Depth | 18.25 mm / 0.719 inches |
| Solder pin length | 5 mm |
| Solder pin dimensions | 0.6 x 1 mm |
| Drilled hole diameter with tolerance | 1.3 ^(+0.1) mm |

Mechanical data

| | |
|--------------------------|-----|
| Variable coding | Yes |
| Anti-rotation protection | Yes |

Plug-in connection

| | |
|--------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector (connection type) | for PCB |
| Mismating protection | No |
| 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 female 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 |
|-------|--------|

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



| | |
|-----------------------------|------------------|
| Material group | I |
| Insulation material | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Contact material | Copper alloy |
| Contact plating | Tin |
| Fire load | 0.155 MJ |
| Weight | 9.3 g |

Environmental requirements

| | |
|-------------------------|----------------|
| Limit temperature range | -60 ... +85 °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 | 4044918579537 |
| Customs tariff number | 85366990990 |

Environmental Product Compliance

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

Approvals / Certificates




General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|--------------------------------|--------------------------|------------------|
| | CB DEKRA Certification B.V. | IEC 61984 | NL-39756/A1 |
|  | CCC CQC | GB/T 13140.1 | CQC03003003013 |


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| | | | |
|----------------------------------------------------------------------------------|----------------------------------------------|----------|-----------|
|  | KEMA/KEUR DEKRA Certification B.V. | EN 61984 | 71-121453 |
|  | UL UL International Germany GmbH | UL 1977 | E45171 |
|  | UR Underwriters Laboratories Inc. | UL 1059 | E45172 |

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications

| Logo | Approval | Additional Approval Text | Certificate name |
|-------------------------------------------------------------------------------------|-------------------------------------------|--------------------------|-------------------|
|  | ABS American Bureau of Shipping | - | 19-HG15869876-PDA |
|  | DNV DNV GL SE | - | TAE000016Z |
|  | LR Lloyds Register | IEC 61984 | 96/20035 (E5) |

Counterpart



Item no.231-640

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 10-pole; 2,50 mm²; orange

www.wago.com/231-640

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Item no.231-640/019-000

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 10-pole; clamping collar; 2,50 mm²; orange

www.wago.com/231-640/019-000

Optional accessories

Testing and measuring

Testing accessories



Item no.: 231-661

Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm²; light gray

www.wago.com/231-661

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 232-270 | URL | Download |
|----------------------|-----|----------|

CAE data

| | | |
|---------------------------|-----|----------|
| EPLAN Data Portal 232-270 | URL | Download |
|---------------------------|-----|----------|

| | | |
|----------------------|-----|----------|
| ZUKEN Portal 232-270 | URL | Download |
|----------------------|-----|----------|

PCB Design

| | | |
|--------------------------------------------------|-----|----------|
| Symbol and Footprint via Ultra Librarian 232-270 | 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

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



- 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 232-270

[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

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



- 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

Asset Administration Shell

| | | |
|------------------------------------|---------------------|--------------------------|
| Asset Administration Shell 232-270 | URL | Download |
|------------------------------------|---------------------|--------------------------|

Environmental Product Compliance

Compliance Search

| | | |
|------------------------------------------|---------------------|--------------------------|
| Environmental Product Compliance 232-270 | URL | Download |
|------------------------------------------|---------------------|--------------------------|

THT female header; angled; Pin spacing 5.08 mm; 10-pole; 0.6 x 1.0 mm solder pin; orange

Installation Notes

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Product family

MCS MIDI Classic

[Show all products from the family](#)

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