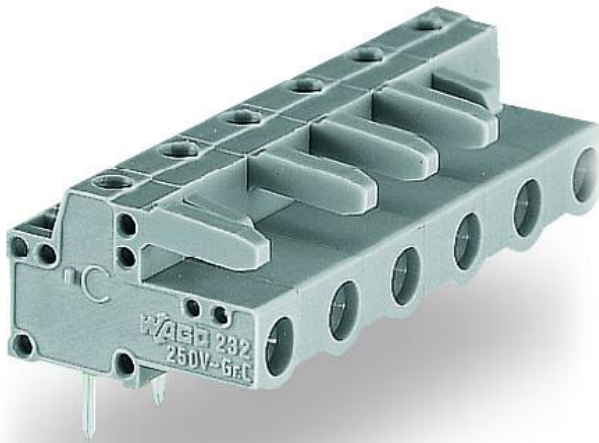


## Data sheet | Item number: 232-832

THT female header; angled; Pin spacing 7.5 mm; 2-pole; 0.6 x 1.0 mm solder pin; gray

[www.wago.com/232-832](http://www.wago.com/232-832)

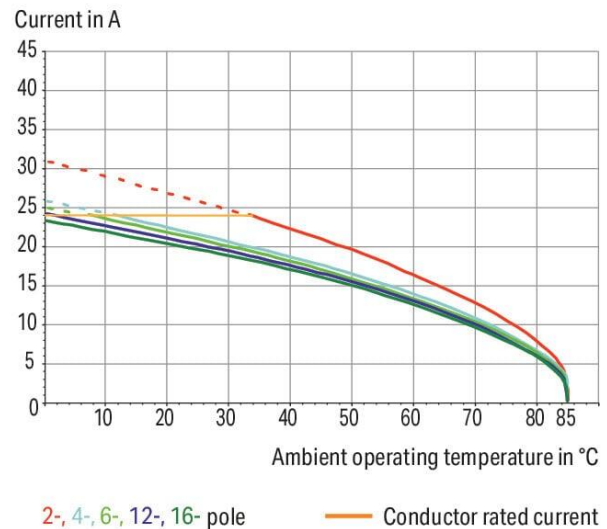


 Picture differs from the item.

Color: —

### Derating Curve

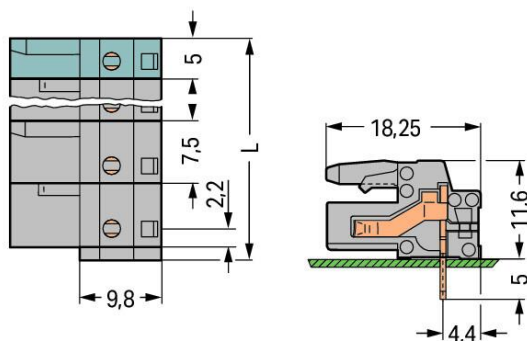
THT female header (232-832) with  
1-conductor male connector (731-602)  
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8



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

WAGO GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
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Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 1.5 \text{ mm}$

Distance to first solder pin: 2.2 mm

2- to 3-pole female connectors – one latch only

## 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!

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## Electrical data

### 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   | 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

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

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



## Connection 1

|             |   |
|-------------|---|
| Pole number | 2 |
|-------------|---|

## Physical data

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 7.5 mm / 0.295 inches    |
| Width                                | 14 mm / 0.551 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 <sup>(+0.1)</sup> 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                | 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            | Copper alloy     |
| Contact plating             | Tin              |
| Fire load                   | 0.062 MJ         |
| Weight                      | 2.1 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               |
| PU (SPU)              | 100 pcs                |
| Packaging type        | box                    |
| Country of origin     | DE                     |
| GTIN                  | 4044918534352          |
| Customs tariff number | 85366990990            |

## 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>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 61984                 | 71-121453        |
|  | <b>UR</b><br>Underwriters Laboratories Inc.  | UL 1977                  | E 45171          |

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




UR  
Underwriters Laboratories Inc.




UL 1059

E45172

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

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

#### Approvals for marine applications

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

#### Counterpart



##### Item no.731-602

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 2-pole; 2,50 mm²; gray

[www.wago.com/731-602](http://www.wago.com/731-602)



##### Item no.731-602/019-000

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 2-pole; clamping collar; 2,50 mm²; gray

[www.wago.com/731-602/019-000](http://www.wago.com/731-602/019-000)

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Hansastr. 27  
32423 Minden  
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## Optional accessories

### Testing and measuring

#### Testing accessories



**Item no.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable; red

[www.wago.com/210-136](http://www.wago.com/210-136)



**Item no.: 231-662**

Test plugs for female connectors; for 7.5 mm and 7.62 mm pin spacing; 2,50 mm²; light gray

[www.wago.com/231-662](http://www.wago.com/231-662)

## Downloads

### Documentation

#### Additional Information

2019 Apr 3

pdf  
2.1 MB

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## CAD/CAE-Data

### CAD data

2D/3D Models 232-832

[URL](#)

[Download](#)

### CAE data

EPLAN Data Portal 232-832

[URL](#)

[Download](#)

ZUKEN Portal 232-832

[URL](#)

[Download](#)

### PCB Design

Symbol and Footprint via Ultra Librarian 232-832

[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

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

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- 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 232-832

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

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

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- 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 232-832 | URL | Download |
|------------------------------------|-----|----------|

Environmental Product Compliance

Compliance Search

|  |     |          |
|--|-----|----------|
| Environmental Product Compliance 232-832   | URL | Download |
| THT female header; angled; Pin spacing 7.5 mm; 2-pole; 0.6 x 1.0 mm solder pin; gray |     |          |

Installation Notes

Product family

MCS MIDI Classic  
[Show all products from the family](#)

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