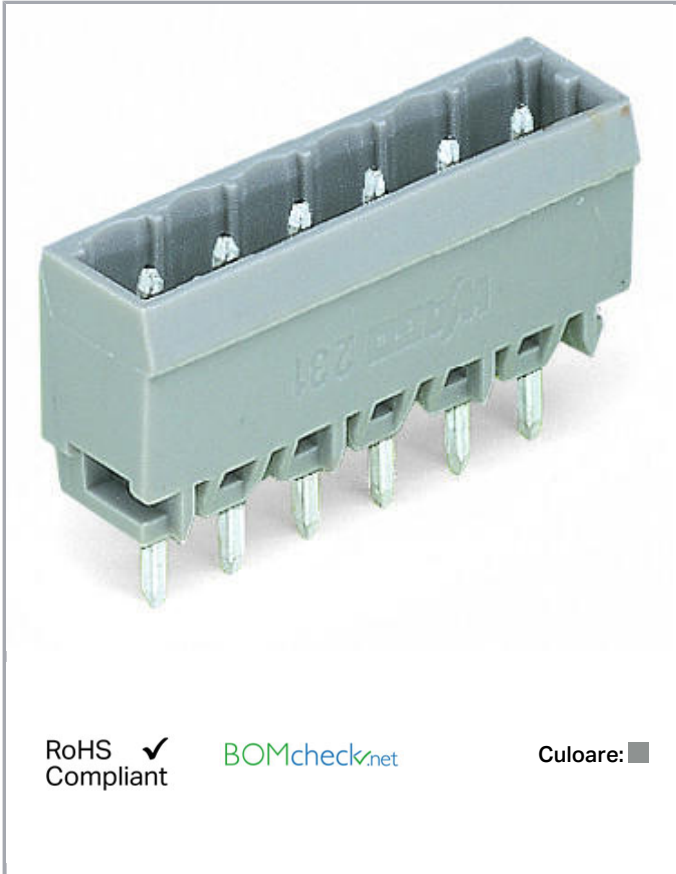


## Fișă tehnică | Număr articol: 231-164/001-000

THT male header; 1.2 x 1.2 mm solder pin; straight; Pin spacing 5 mm; 4-pole; gray

[www.wago.com/231-164/001-000](http://www.wago.com/231-164/001-000)



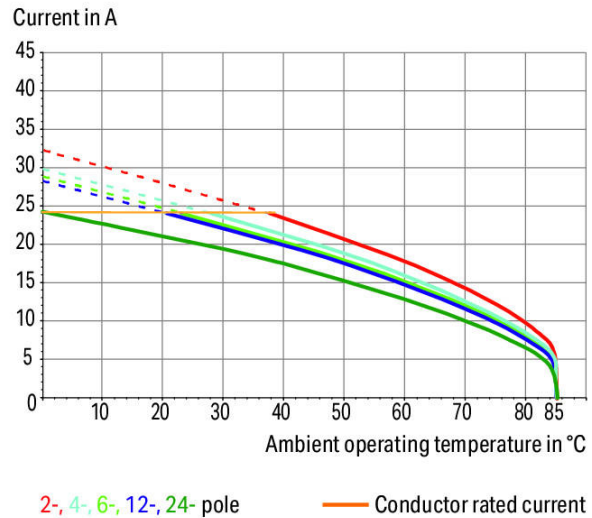
RoHS  Compliant

BOMcheck.net

Culoare: ■

### Derating Curve

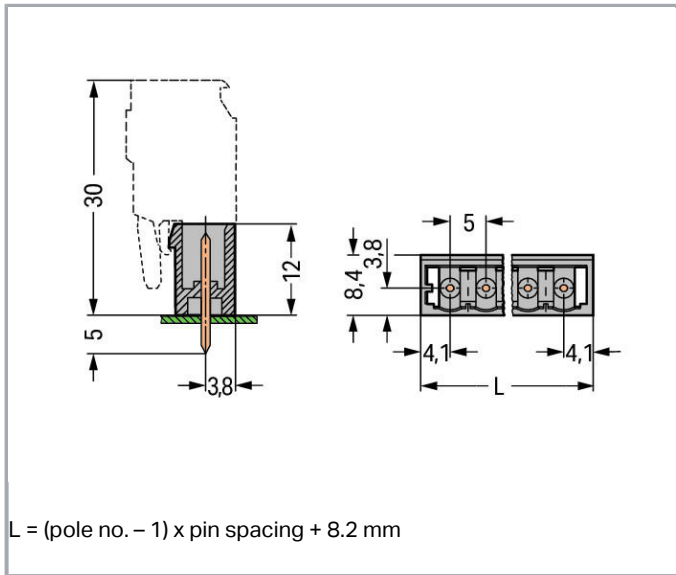
1-conductor female connector (231-102/026-000) with  
THT male header (231-462/001-000)  
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8



Supus modificărilor.

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building 1, 2nd floor | 077190 Voluntari, Ilfov  
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## Descriere articol

- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers

### Safety information 1:

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall 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.

## Date

### Electrical data

### Ratings per IEC/EN 60664-1

| Ratings per                 | IEC/EN 60664-1 |
|-----------------------------|----------------|
| Nominal voltage (III/3)     | 250 V          |
| Rated surge voltage (III/3) | 4 kV           |
| Rated voltage (III/2)       | 320 V          |
| Rated surge voltage (III/2) | 4 kV           |
| Nominal voltage (II/2)      | 630 V          |
| Rated surge voltage (II/2)  | 4 kV           |
| Rated current               | 16 A           |

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Legend (ratings)

(III / 2) ≙ Overvoltage category III / Pollution degree 2

**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    |
| Approvals per                  | UL 1059 |

**Approvals per UL 1977**

|                       |       |
|-----------------------|-------|
| Rated voltage UL 1977 | 600 V |
| Rated current UL 1977 | 15 A  |

**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**

|                            |   |
|----------------------------|---|
| Pole No.                   | 4 |
| Total number of potentials | 4 |
| Number of connection types | 1 |
| Number of levels           | 1 |

**Geometrical Data**

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 5 mm / 0.197 inch        |
| Width                                | 23.2 mm / 0.913 inch     |
| Height                               | 17 mm / 0.669 inch       |
| Height from the surface              | 12 mm / 0.472 inch       |
| Depth                                | 8.4 mm / 0.331 inch      |
| Solder pin length                    | 5 mm                     |
| Solder pin dimensions                | 1.2 x 1.2 mm             |
| Drilled hole diameter with tolerance | 1.7 <sup>(+0.1)</sup> mm |

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## Plug connection

|                                    |                     |
|------------------------------------|---------------------|
| Contact type (pluggable connector) | Male connector/plug |
| Connector (connection type)        | for PCBs            |
| Mismating protection               | No                  |
| Mating direction to the PCB        | 90°                 |

## PCB contact

|                                     |   |
|-------------------------------------|---|
| PCB contact                         | THT                                     |
| Solder pin arrangement              | over the entire male connector, in line |
| Number of solder pins per potential | 1                                       |

## Material Data

|                             |  |
|-----------------------------|--|
| Color                       | gray                                   |
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | tin-plated                             |
| Fire load                   | 0,026 MJ                               |
| Weight                      | 1,7 g                                  |

## Environmental Requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
|-------------------------|-----------------|

## Commercial data

|                       |                        |
|-----------------------|------------------------|
| Product Group         | 3 (Multi Conn. System) |
| Packaging type        | BOX                    |
| Country of origin     | PL                     |
| GTIN                  | 4044918928380          |
| Customs tariff number | 85366990990            |

## Aprobări / certificate

### Country specific Approvals

| Emblemă | Aprobare | Text de aprobare suplimentar | Nume certificat |
|---------|----------|------------------------------|-----------------|
|---------|----------|------------------------------|-----------------|

Supus modificărilor.

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CSA  
DEKRA Certification B.V.



C22.2

1466354

### Ship Approvals

| Emblemă  | Aprobare  | Text de aprobare suplimentar | Nume certificat          |
|--|---|------------------------------|--------------------------|
|  | <b>ABS</b><br>American Bureau of Shipping               | -                            | 19-<br>HG1869876-<br>PDA |
|  | <b>DNV GL</b><br>Det Norske Veritas, Germanischer Lloyd | -                            | TAE000016Z               |

### UL-Approvals

| Emblemă  | Aprobare                                    | Text de aprobare suplimentar | Nume certificat     |
|--|---|------------------------------|---------------------|
|   | <b>UL</b><br>Underwriters Laboratories Inc. | UL 1059                      | 20190731-<br>E45172 |
|  | <b>UR</b><br>UL International Germany GmbH  | UL 1977                      | E45171              |

### Counterpart



Nr. articol: 231-104/026-000

1-conductor female plug; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 4-pole; 2,50 mm<sup>2</sup>; gray

[www.wago.com/231-104/026-000](http://www.wago.com/231-104/026-000)

### Produse compatibile

#### Marking accessories



Nr. articol: 210-833

Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white

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

Nr. articol: 210-834

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Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white

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

## Coding

**Nr. articol: 231-129**

Coding key; snap-on type; light gray

[www.wago.com/231-129](http://www.wago.com/231-129)**Nr. articol: 231-500**

Spacer; for formation of groups; light gray

[www.wago.com/231-500](http://www.wago.com/231-500)

## Descărcări

### Documentation

#### Additional Information

|                        |             |               |            |
|------------------------|-------------|---------------|------------|
| Technical explanations | Apr 3, 2019 | pdf<br>3,6 MB | Descărcare |
|------------------------|-------------|---------------|------------|

## CAD/CAE-Data

### CAD data

|                              |     |            |
|------------------------------|-----|------------|
| 2D/3D Models 231-164/001-000 | URL | Descărcare |
|------------------------------|-----|------------|

### CAE data

|                                   |     |            |
|-----------------------------------|-----|------------|
| EPLAN Data Portal 231-164/001-000 | URL | Descărcare |
|-----------------------------------|-----|------------|

### PCB Design

|                                      |     |            |
|--------------------------------------|-----|------------|
| Symbol and Footprint 231-164/001-000 | URL | Descărcare |
|--------------------------------------|-----|------------|

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
- Altium 6 to current version
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design Expedition 99 and 2000

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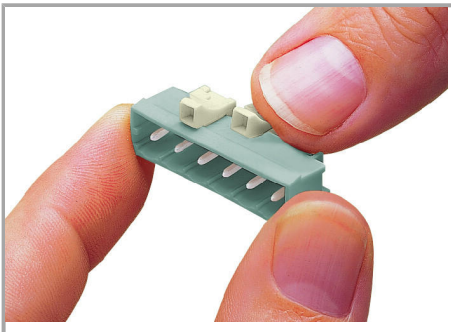
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

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## Installation Notes

### Coding



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

## Familie de produse

*<i>MCS</i>* MIDI Classic  
Afișare globală produse din familie.

Supus modificărilor.

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