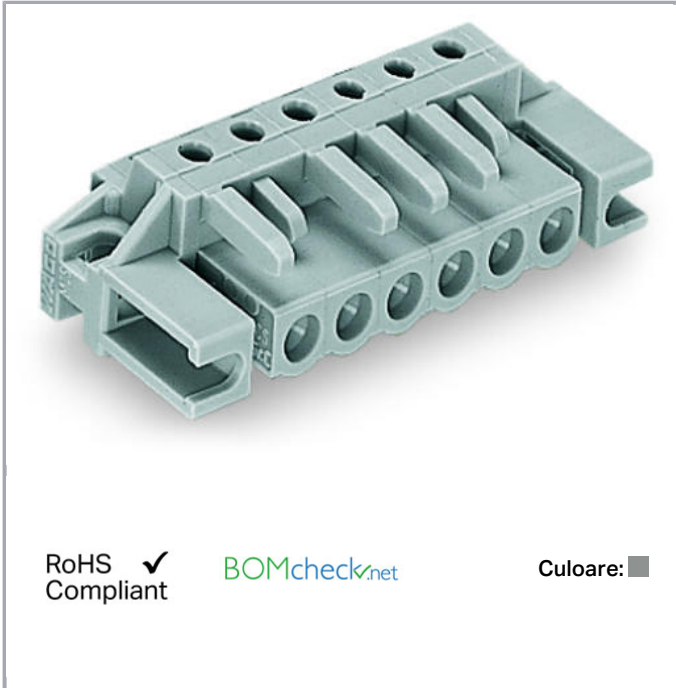


Fișă tehnică | Număr articol: 232-249/047-000

THT female header; 0.6 x 1.0 mm solder pin; angled; Spacer flange; Pin spacing 5 mm; 19-pole; gray

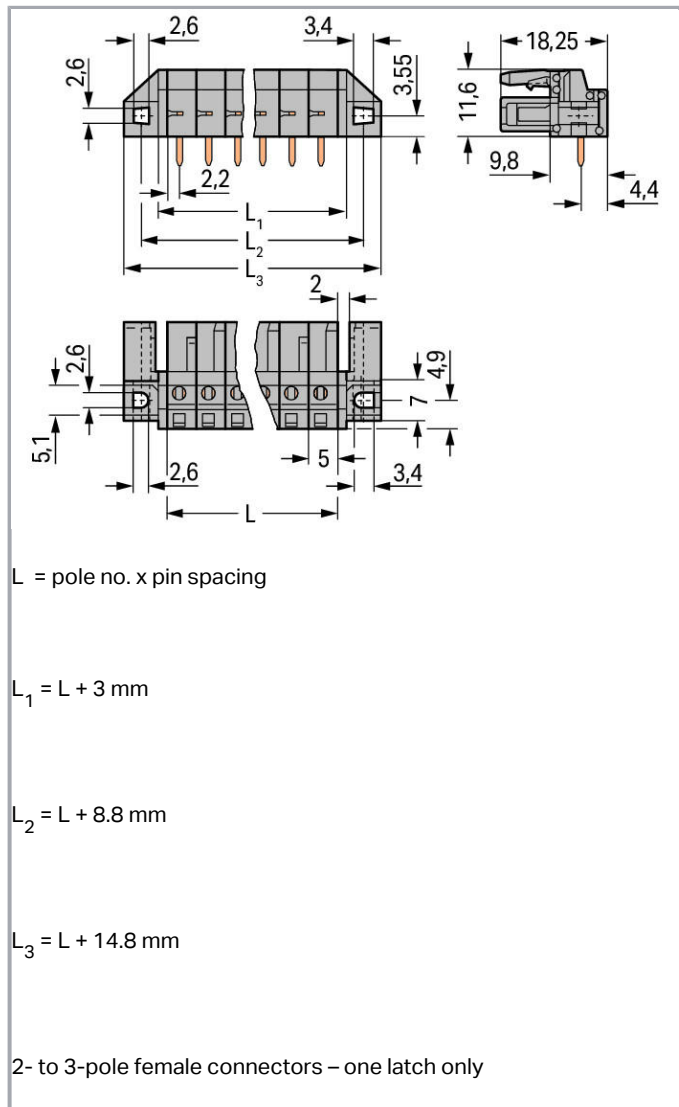
[www.wago.com/232-249/047-000](http://www.wago.com/232-249/047-000)



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Aveți întrebări despre produsele noastre?  
Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.



## Descriere articol

- 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

## Safety information 1:

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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)     | 320 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               | 12 A   |
| Legend (ratings)            | (III / 2) $\triangleq$ 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  |

Supus modificărilor.

**Connection data**

|                            |    |
|----------------------------|----|
| Pole No.                   | 19 |
| Total number of potentials | 19 |
| Number of connection types | 1  |
| Number of levels           | 1  |

**Geometrical Data**

|                                      |                          |
|--------------------------------------|--------------------------|
| Pin spacing                          | 5 mm / 0.197 inch        |
| Width                                | 109.8 mm / 4.323 inch    |
| Height                               | 16.6 mm / 0.654 inch     |
| Height from the surface              | 11.6 mm / 0.457 inch     |
| Depth                                | 18.25 mm / 0.719 inch    |
| 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**

|               |                                  |
|---------------|----------------------------------|
| Mounting type | Mounting flange                  |
| Mounting type | Flush mounting<br>Panel mounting |

**Plug connection**

|                                    |                         |
|------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector (connection type)        | for PCBs                |
| Mismating protection               | No                      |
| Mating direction to the PCB        | 0°                      |

**PCB contact**

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

**Material Data**

|       |      |
|-------|------|
| Color | gray |
|-------|------|

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|                             |                      |
|-----------------------------|----------------------|
| Material group              | I                    |
| Insulation material         | Polyamide 66 (PA 66) |
| Flammability class per UL94 | V0                   |
| Contact material            | Copper alloy         |
| Contact plating             | tin-plated           |
| Fire load                   | 0,333 MJ             |
| Weight                      | 18,4 g               |

### Environmental Requirements


|                         |                |
|-------------------------|----------------|
| Limit temperature range | -60 ... +85 °C |
|-------------------------|----------------|

### Commercial data



|                       |               |
|-----------------------|---------------|
| Packaging type        | BOX           |
| Country of origin     | DE            |
| GTIN                  | 4050821627760 |
| Customs tariff number | 85366990990   |

### Aprobări / certificate

#### Country specific Approvals

| Emblemă  | Aprobare                        | Text de aprobare suplimentar | Nume certificat |
|--|---------------------------------|------------------------------|-----------------|
|  | CSA<br>DEKRA Certification B.V. | C22.2                        | 1466354         |

#### Ship Approvals

| Emblemă  | Aprobare   | Text de aprobare suplimentar | Nume certificat           |
|--|--|------------------------------|---------------------------|
|  | ABS<br>American Bureau of Shipping               | -                            | 19-<br>HG15869876-<br>PDA |
|  | DNV GL<br>Det Norske Veritas, Germanischer Lloyd | -                            | TAE 000016Z               |



#### UL-Approvals

Nume

Supus modificărilor.

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Aveți întrebări despre produsele noastre?  
Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.

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

## Counterpart



Nr. articol 231-619

1-conductor male connector; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 19-pole; 2,50 mm<sup>2</sup>; gray

[www.wago.com/231-619](http://www.wago.com/231-619)

## Produse compatibile

### check



Nr. articol: 231-661

Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm<sup>2</sup>; light gray

[www.wago.com/231-661](http://www.wago.com/231-661)

## Descărcări

### Documentation

#### Additional Information

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

## CAD/CAE-Data

### PCB Design

Symbol and Footprint 232-249/047-000

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

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Aveți întrebări despre produsele noastre?

Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.



- 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

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

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## Installation Notes

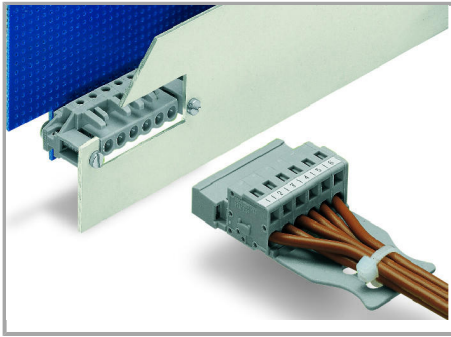
### Application

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Aveți întrebări despre produsele noastre?  
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The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mount applications.

## Familie de produse

*MCS* MIDI Classic

Afișare globală produse din familie.

Supus modificărilor.