

# Data Sheet | Item Number: 231-162/001-000/105-604/997-405

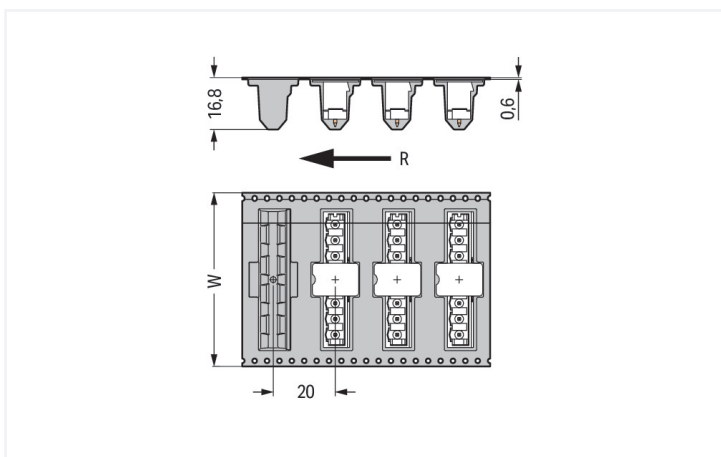
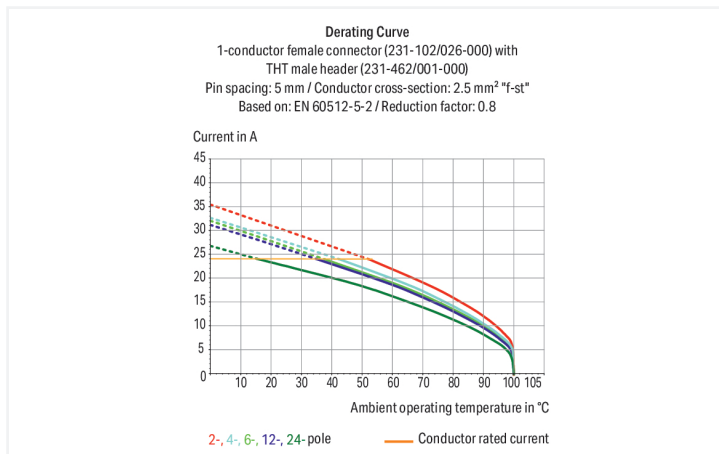
THR male header; 1.2 x 1.2 mm solder pin; straight; in tape-and-reel packaging; Pin spacing 5 mm; 2-pole; black

<https://www.wago.com/231-162/001-000/105-604/997-405>

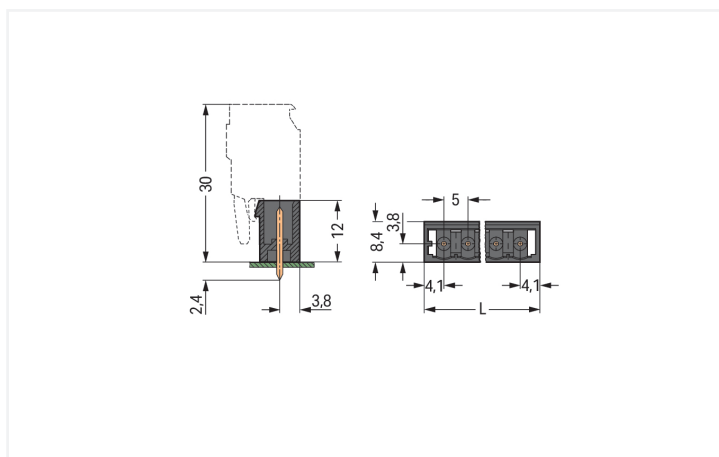


Color: ■ black

Similar to illustration



Dimensions in mm  
W = tape width R = feed direction



Dimensions in mm  
L = (pole no. x pin spacing) + 3.2 mm

Male connector, 231 Series, black

This male connector (item number 231-162/001-000/105-604/997-405) provides fault-free electrical installations. The dimensions are (13.2 x 14.4 x 8.4) mm (width x height x depth).

The contact surface is coated with tin. THR is used to assemble the pcb connector.

## 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  
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 60664-1 |       |       |
|---------------------------------|----------------|-------|-------|
| Overvoltage category            | III            | III   | II    |
| Pollution degree                | 3              | 2     | 2     |
| Nominal voltage                 | 250 V          | 320 V | 630 V |
| Rated impulse withstand voltage | 4 kV           | 4 kV  | 4 kV  |
| Rated current                   | 16 A           | 16 A  | 16 A  |

| Approvals per | UL 1059 |   |       |
|---------------|---------|---|-------|
| Use group     | B       | C | D     |
| Rated voltage | 300 V   | - | 300 V |
| Rated current | 10 A    | - | 10 A  |

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

| Approvals per | CSA   |   |       |
|---------------|-------|---|-------|
| Use group     | B     | C | D     |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 10 A  | - | 10 A  |

## Connection Data

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

| Connection 1 |   |
|--------------|---|
| Pole number  | 2 |

## Physical data

|  |                          |
|--|--------------------------|
| Pin spacing                              | 5 mm / 0.197 inches      |
| Width                                    | 13.2 mm / 0.52 inches    |
| Height                                   | 14.4 mm / 0.567 inches   |
| Height from the surface                  | 12 mm / 0.472 inches     |
| Depth                                    | 8.4 mm / 0.331 inches    |
| Solder pin length                        | 2.4 mm                   |
| Solder pin dimensions                    | 1.2 x 1.2 mm             |
| Plated through-hole diameter (THR)       | 1.7 <sup>(+0.1)</sup> mm |
| Reel diameter of tape-and-reel packaging | 330 mm                   |
| Tape width                               | 32 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               | No                  |
| Mating direction to the PCB        | 90 °                |

### 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)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | black  |
| Material group                     | I  |
| Insulation material (main housing) | Polyphthalamide (PPA GF)   |
| Flammability class per UL94        | V0   |
| Contact material                   | Electrolytic copper (E <sub>Cu</sub> )                                   |
| Contact Plating                    | Tin  |
| Fire load                          | 0.026 MJ   |
| Weight                             | 1 g  |
| MSL per J-STD 020D                 | 1  |

### Environmental requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
| Processing temperature  | -35 ... +60 °C  |

### Commercial data

|                       |               |
|-----------------------|---------------|
| PU (SPU)              | 170 pcs       |
| Packaging type        | Bag           |
| Country of origin     | DE            |
| GTIN                  | 4045454000288 |
| Customs tariff number | 85366930000   |

### Product Classification

|             |                      |
|-------------|----------------------|
| UNSPSC      | 39121409             |
| eCl@ss 10.0 | 27-44-04-02          |
| eCl@ss 9.0  | 27-44-04-02          |
| ETIM 9.0    | EC002637             |
| ETIM 10.0   | EC002637             |
| ECCN        | NO US CLASSIFICATION |

### Environmental Product Compliance

RoHS Compliance Status Compliant, No Exemption

### Approvals / Certificates

#### General approvals



| Approval                        | Standard | Certificate Name |
|---------------------------------|----------|------------------|
| CSA<br>DEKRA Certification B.V. | C22.2    | 1466354          |

### Downloads

#### Environmental Product Compliance

##### Compliance Search



### Documentation

#### Additional Information

|                   |            |                   |  |
|-------------------|------------|-------------------|--|
| Technical Section | 03.04.2019 | pdf<br>2027.26 KB |  |
|                   |            | pdf<br>535.32 KB  |  |

### CAD/CAE-Data

#### CAD data



#### PCB Design



### 1 Compatible Products

#### 1.1 System counterpart

##### 1.1.1 Female connector/socket



**Item No.:** [231-102/026-000](#)  
 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 2-pole; gray

## 1.2 Optional Accessories

### 1.2.1 Coding

#### 1.2.1.1 Coding



Item No.: [231-129](#)

Coding key; snap-on type; light gray

#### 1.2.1.2 Intermediate plate



Item No.: [231-500](#)

Spacer; for formation of groups; light gray

## Installation Notes

### Coding



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