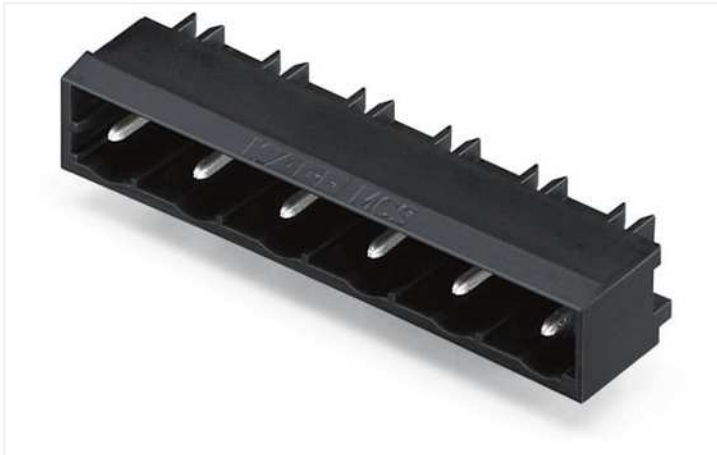


# Data Sheet | Item Number: 231-865/001-000/105-604

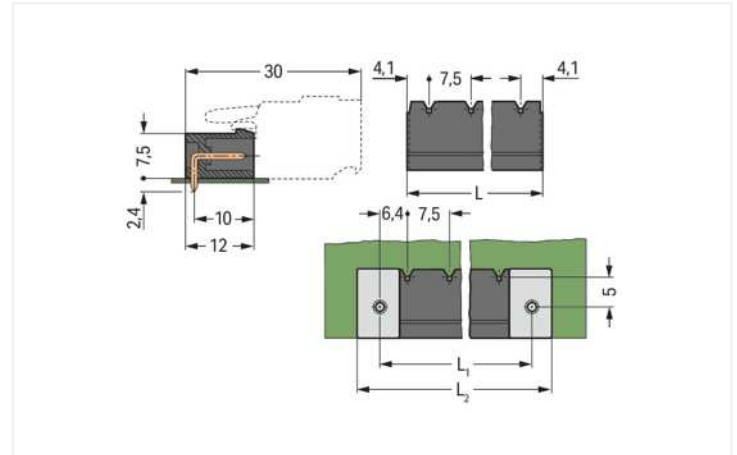
THR male header; 1.2 x 1.2 mm solder pin; angled; Pin spacing 7.5 mm; 5-pole; black

<https://www.wago.com/231-865/001-000/105-604>



Color: ■ black

Similar to illustration

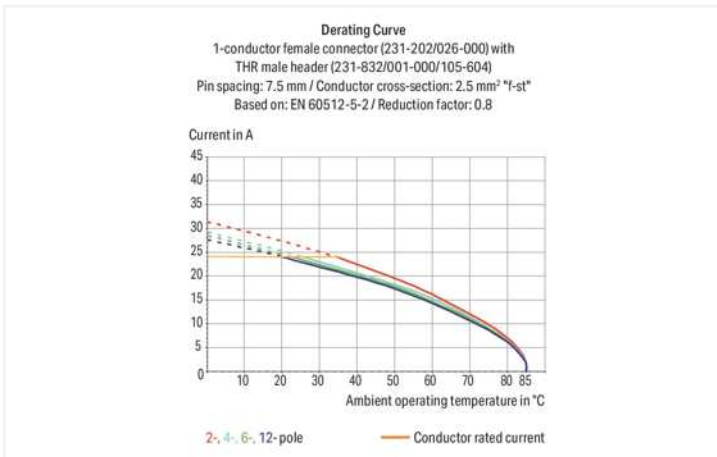


Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

$L1 = L + 5 \text{ mm}$

$L2 = L1 + 7.4 \text{ mm}$



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers

## 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      | 500 V          | 630 V | 1000 V |
| Rated surge voltage  | 6 kV           | 6 kV  | 6 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 | 5 |
| Number of connection types | 1 |
| Number of levels           | 1 |

### Connection 1

|             |   |
|-------------|---|
| Pole number | 5 |
|-------------|---|

### Physical data

|                                    |                          |
|------------------------------------|--------------------------|
| Pin spacing                        | 7.5 mm / 0.295 inches    |
| Width                              | 38 mm / 1.496 inches     |
| Height                             | 10.8 mm / 0.425 inches   |
| Height from the surface            | 8.4 mm / 0.331 inches    |
| Depth                              | 12 mm / 0.472 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 |

### 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        | 0°                  |

### 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="https://www.wago.com/us/material-specifications" href="_blank">Information on material specifications can be found here</a> |
| Color                       | black  |
| Material group              | I  |
| Insulation material         | Polyphthalamide (PPA GF)   |
| Flammability class per UL94 | V0   |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> )   |
| Contact plating             | Tin  |
| Fire load                   | 0.049 MJ   |
| Weight                      | 2.6 g  |
| MSL per J-STD 020D          | 1  |

## Environmental requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °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     | PL                     |
| GTIN                  | 4045454901325          |
| Customs tariff number | 85366930000            |

## Environmental Product Compliance

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

## Approvals / Certificates

### General approvals



| Approval                              | Standard  | Certificate Name |
|---------------------------------------|-----------|------------------|
| CB<br>DEKRA Certification B.V.        | IEC 61984 | NL-39756/A1      |
| CSA<br>DEKRA Certification B.V.       | C22.2     | 1466354          |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 61984  | 71-121453        |
| UR<br>Underwriters Laboratories Inc.  | UL 1059   | E45172           |
| UR<br>Underwriters Laboratories Inc.  | UL 1977   | E 45171          |

## Downloads

## Environmental Product Compliance

Compliance Search



## Documentation

Additional Information

Technical Section

03.04.2019

pdf

2010.85 KB



pdf

535.32 KB



## CAD/CAE-Data

CAD data



CAE data



## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Female connector/socket



**Item No.: 231-205/026-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 7.5 mm; 5-pole; 2,50 mm<sup>2</sup>; gray

### 1.2 Optional Accessories

#### 1.2.1 Coding

##### 1.2.1.1 Intermediate plate



**Item No.: 231-500**

Spacer; for formation of groups; light gray

## Installation Notes

Coding



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