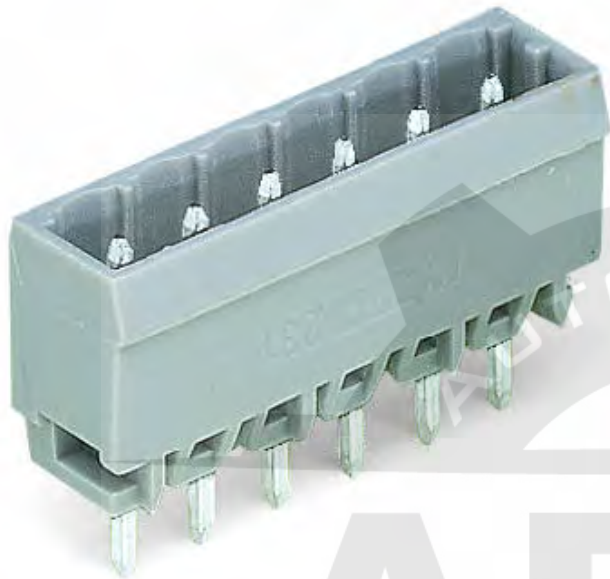


# Data sheet | Item number: 231-174/001-000

THT male header; 1.2 x 1.2 mm solder pin; straight; Pin spacing 5 mm; 14-pole



231-174/001-000



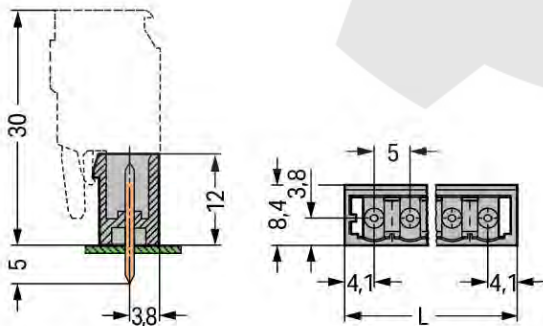
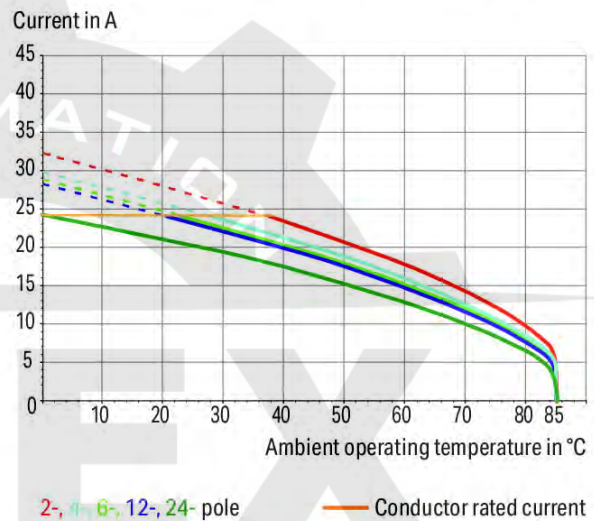
RoHS  
Compliant

BOMcheck.net

Color: ■

## 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



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



## Item description

- 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.

## Data

### Electrical data

#### Ratings per IEC/EN 60664-1

|                                 |       |
|---------------------------------|-------|
| Rated voltage (III / 3)         | 250 V |
| Rated impulse voltage (III / 3) | 4 kV  |
| Rated voltage (III / 2)         | 320 V |
| Rated impulse voltage (III / 2) | 4 kV  |
| Rated voltage (II / 2)          | 630 V |
| Rated impulse voltage (II / 2)  | 4 kV  |
| Rated current                   | 16 A  |

#### 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 1977

|                                                 |       |
|-------------------------------------------------|-------|
| Rated voltage per UL 1977 (factory wiring only) | 600 V |
| Rated current per UL 1977 (factory wiring only) | 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

|                            |    |
|----------------------------|----|
| No. of poles               | 14 |
| Total number of potentials | 14 |
| Number of connection types | 1  |
| Number of levels           | 1  |

## Geometrical Data

|                                   |                                |
|-----------------------------------|--------------------------------|
| Pin spacing                       | 5 mm / 0.197 inch              |
| Width                             | 73.2 mm / 2.882 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 (tolerance) | 1.7 <sup>(- ... +0.1)</sup> mm |

## 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                                      |
| Insulating material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | tin-plated                             |
| Fire load                   | 0.081 MJ                               |
| Weight                      | 5.45 g                                 |

## Environmental Requirements

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

## Commercial data

|                    |                        |
|--------------------|------------------------|
| Product Group      | 3 (Multi Conn. System) |
| Country of origin  | DE                     |
| GTIN               | 4044918928670          |
| Customs Tariff No. | 85366990990            |

## Approvals / Certificates

### Country specific Approvals

| Logo                                                                               | Approval                        | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|---------------------------------|--------------------------|------------------|
|                                                                                    | CB<br>DEKRA Certification B.V.  | IEC 61984                | NL-39756         |
|   | CSA<br>DEKRA Certification B.V. | C22.2                    | 1466354          |
|  | CSA<br>DEKRA Certification B.V. | C22.2                    | 1466354          |

### Ship Approvals

| Logo                                                                               | Approval                                         | Additional Approval Text | Certificate name         |
|------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|--------------------------|
|  | ABS<br>American Bureau of Shipping               | -                        | 14-<br>HG1241537-<br>PDA |
|  | DNV GL<br>Det Norske Veritas, Germanischer Lloyd | -                        | TAE000016Z               |

### UL-Approvals

| Logo                                                                               | Approval                            | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|-------------------------------------|--------------------------|------------------|
|  | UR<br>UL International Germany GmbH | UL 1977                  | E45171           |
|                                                                                    | UR                                  | UL 1977                  | E45171           |



UL International Germany GmbH

## Compatible products

### Coding



Item no.: 231-129  
Coding key; snap-on type

231-129



Item no.: 231-500  
Spacer; for formation of groups

231-500

### Marking accessories



Item no.: 210-833  
Marking strips; on reel; 6 mm wide; plain; Self-adhesive

210-833



Item no.: 210-834  
Marking strips; on reel; 5 mm wide; plain; Self-adhesive

210-834

## Downloads

### CAD/CAE - Smart Data

#### PCB libraries

|                                                                           |             |        |          |
|---------------------------------------------------------------------------|-------------|--------|----------|
| EAGLE Library for WAGO Pluggable PCB Connectors (MULTI CONNECTION SYSTEM) | 2.1         | zip    | Download |
| Compatible with EAGLE PCB Design Software Version 6.x or higher           | Oct 6, 2014 | 6.2 MB |          |

|                                                                                 |             |        |          |
|---------------------------------------------------------------------------------|-------------|--------|----------|
| DesignSpark Library for WAGO Pluggable PCB Connectors (MULTI CONNECTION SYSTEM) | 2.1         | zip    | Download |
| Compatible with DesignSpark PCB Version 4.x or higher                           | Oct 6, 2014 | 6.1 MB |          |

|                                                                            |             |        |          |
|----------------------------------------------------------------------------|-------------|--------|----------|
| TARGET Library for WAGO Pluggable PCB Connectors (Multi-Connection System) | 1.1.0       | zip    | Download |
| Compatible with TARGET PCB Design Software Version 17.x                    | Oct 6, 2014 | 7.4 MB |          |

#### CAD data

|                             |     |          |
|-----------------------------|-----|----------|
| 3D Download 231-174/001-000 | URL | Download |
|-----------------------------|-----|----------|

Subject to changes.