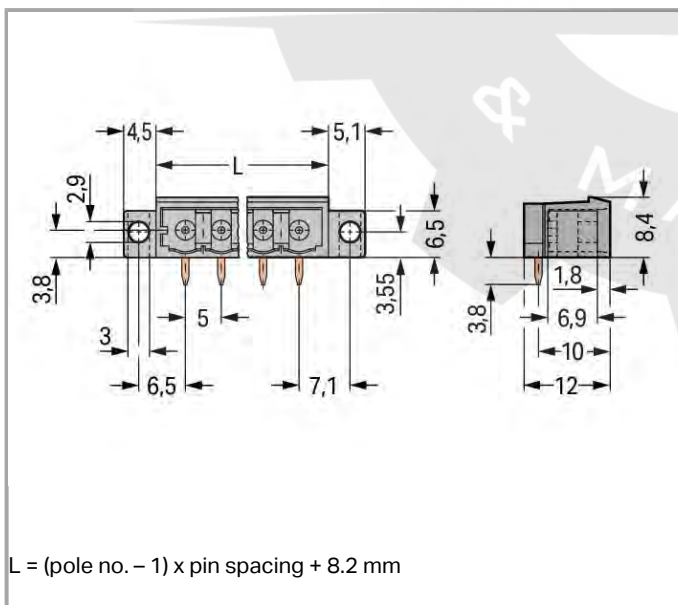
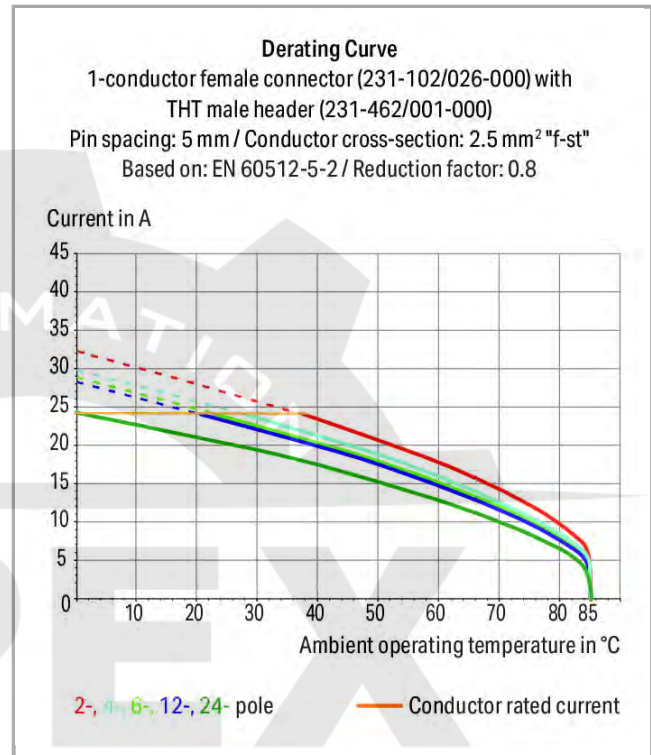
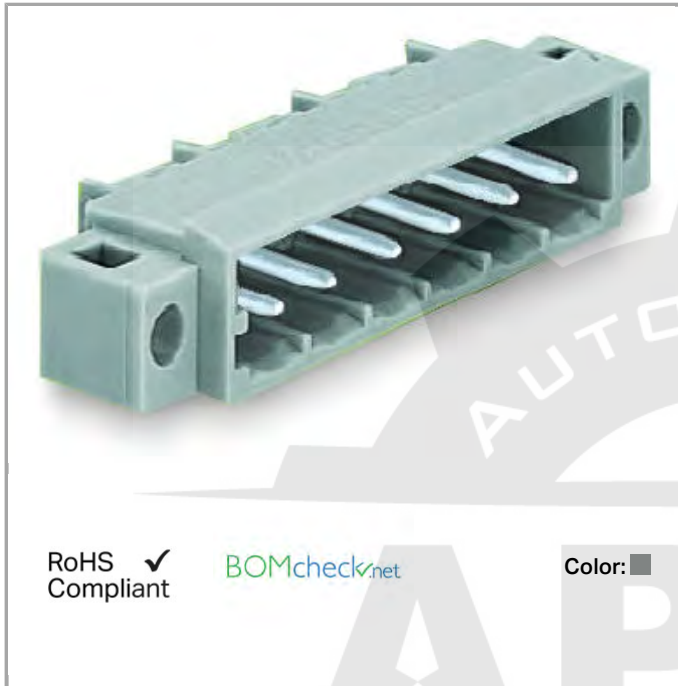


## Data sheet | Item number: 231-433/040-000

THT male header; 1.0 x 1.0 mm solder pin; angled; clamping collar; Pin spacing 5 mm; 3-pole



231-433/040-000



### Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins



- Pin cross-section: 1 x 1 mm
- 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)         | 320 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                   | 12 A  |

**Approvals per UL 1059**

|                                |       |
|--------------------------------|-------|
| Rated voltage UL (Use Group B) | 300 V |
| Rated current UL (Use Group B) | 10 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) | 10 A  |

**Approvals per CSA**

|                                 |       |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 10 A  |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 10 A  |

**Connection data**

|                            |   |
|----------------------------|---|
| No. of poles               | 3 |
| Total number of potentials | 3 |
| Number of connection types | 1 |

|                  |   |
|------------------|---|
| Number of levels | 1 |
|------------------|---|

## Geometrical Data

|                                   |                                |
|-----------------------------------|--------------------------------|
| Pin spacing                       | 5 mm / 0.197 inch              |
| Width                             | 27.8 mm / 1.094 inch           |
| Height                            | 12.2 mm / 0.48 inch            |
| Height from the surface           | 8.4 mm / 0.331 inch            |
| Depth                             | 12 mm / 0.472 inch             |
| Solder pin length                 | 3.8 mm                         |
| Solder pin dimensions             | 1 x 1 mm                       |
| Drilled hole diameter (tolerance) | 1.4 <sup>(- ... +0.1)</sup> mm |

## Mechanical data

|                  |                                         |
|------------------|-----------------------------------------|
| Mounting type    | Mounting flange                         |
| Type of mounting | Feed-through mounting<br>Panel mounting |

## Plug connection

|                                    |                     |
|------------------------------------|---------------------|
| Contact type (pluggable connector) | Male connector/plug |
| 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 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                   | 0.037 MJ                               |
| Weight                      | 1.4 g                                  |

## Environmental Requirements

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

## Commercial data

|                    |                        |
|--------------------|------------------------|
| Product Group      | 3 (Multi Conn. System) |
| Country of origin  | PL                     |
| GTIN               | 4044918866125          |
| 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 |
|------------------------------------------------------------------------------------|--------------------------------------|--------------------------|------------------|
|  | UL<br>Underwriters Laboratories Inc. | UL 1977                  | E45171           |

## Compatible products

|                                                                                    |                                                                                      |  |         |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|---------|
| <b>Coding</b>                                                                      |                                                                                      |  |         |
|    | <b>Item no.: 231-129</b><br>Coding key; snap-on type                                 |  | 231-129 |
|    | <b>Item no.: 231-500</b><br>Spacer; for formation of groups                          |  | 231-500 |
| <b>assembling</b>                                                                  |                                                                                      |  |         |
|    | <b>Item no.: 209-147</b><br>Self-tapping screw                                       |  | 209-147 |
|    | <b>Item no.: 231-194</b><br>Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø       |  | 231-194 |
|    | <b>Item no.: 231-195</b><br>Screw with nut; M2x12; for fixing element                |  | 231-195 |
|    | <b>Item no.: 231-295</b><br>Screw with nut                                           |  | 231-295 |
| <b>Marking accessories</b>                                                         |                                                                                      |  |         |
|  | <b>Item no.: 210-833</b><br>Marking strips; on reel; 6 mm wide; plain; Self-adhesive |  | 210-833 |
|  | <b>Item no.: 210-834</b><br>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)<br>Compatible with EAGLE PCB Design Software Version 6.x or higher | 2.1<br>Oct 6, 2014   | zip<br>6.2 MB | Download |
| DesignSpark Library for WAGO Pluggable PCB Connectors (MULTI CONNECTION SYSTEM)<br>Compatible with DesignSpark PCB Version 4.x or higher     | 2.1<br>Oct 6, 2014   | zip<br>6.1 MB | Download |
| TARGET Library for WAGO Pluggable PCB Connectors (Multi-Connection System)<br>Compatible with TARGET PCB Design Software Version 17.x        | 1.1.0<br>Oct 6, 2014 | zip<br>7.4 MB | Download |

#### CAD data

|                             |     |          |
|-----------------------------|-----|----------|
| 3D Download 231-433/040-000 | URL | Download |
|-----------------------------|-----|----------|



Subject to changes.

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