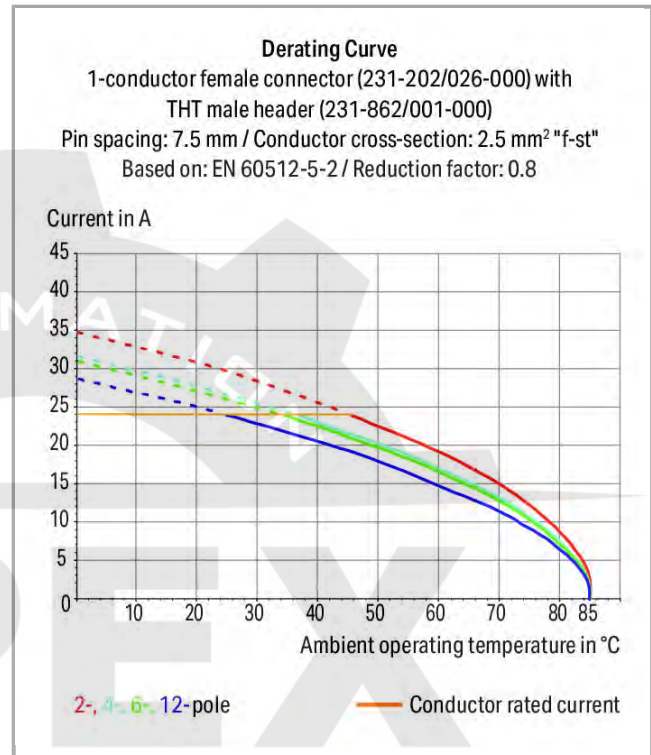


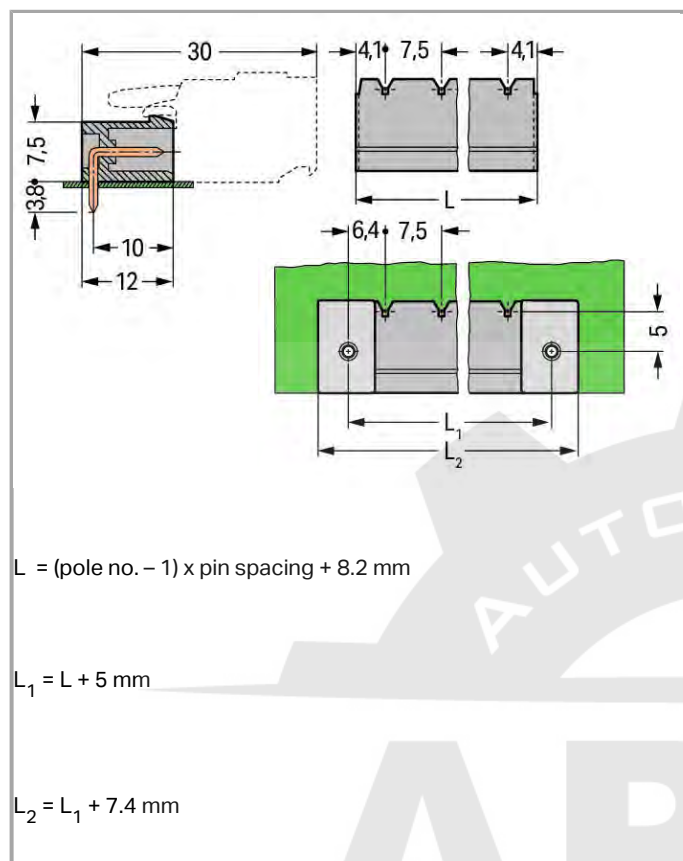
# Data sheet | Item number: 231-841/001-000

THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 7.5 mm; 11-pole



231-841/001-000





### 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)         | 500 V  |
| Rated impulse voltage (III / 3) | 6 kV   |
| Rated voltage (III / 2)         | 630 V  |
| Rated impulse voltage (III / 2) | 6 kV   |
| Rated voltage (II / 2)          | 1000 V |

|                                |      |
|--------------------------------|------|
| Rated impulse voltage (II / 2) | 6 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               | 11 |
| Total number of potentials | 11 |
| Number of connection types | 1  |
| Number of levels           | 1  |

#### Geometrical Data

|                                   |                                |
|-----------------------------------|--------------------------------|
| Pin spacing                       | 7.5 mm / 0.295 inch            |
| Width                             | 83.2 mm / 3.276 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 |

#### 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                   | 0.091 MJ                               |
| Weight                      | 4.438 g                                |

## Environmental Requirements

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

## Commercial data

|                    |                        |
|--------------------|------------------------|
| Product Group      | 3 (Multi Conn. System) |
| Country of origin  | PL                     |
| GTIN               | 4044918868297          |
| Customs Tariff No. | 85366990990            |

## Approvals / Certificates

### Country specific Approvals

| Logo                                                                               | Approval                                     | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------|------------------|
|                                                                                    | <b>CB</b><br>DEKRA Certification B.V.        | IEC 61984                | NL-39756         |
|  | <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 61984                 | 2190761.01       |

### Ship Approvals

| Logo | Approval                                  | Additional Approval Text | Certificate name  |
|------|-------------------------------------------|--------------------------|-------------------|
|      | <b>ABS</b><br>American Bureau of Shipping | -                        | 14-<br>HG1241537- |



## UL-Approvals

| Logo                                                                             | Approval                             | Additional Approval Text | Certificate name |
|----------------------------------------------------------------------------------|--------------------------------------|--------------------------|------------------|
|  | UR<br>Underwriters Laboratories Inc. | UL 1977                  | E45171           |
|  | UR<br>Underwriters Laboratories Inc. | UL 1059                  | E45172           |

## Compatible products

### Marking accessories

|                                                                                    |                                                                               |         |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------|
|  | Item no.: 210-833<br>Marking strips; on reel; 6 mm wide; plain; Self-adhesive | 210-833 |
|  | Item no.: 210-834<br>Marking strips; on reel; 5 mm wide; plain; Self-adhesive | 210-834 |

### Coding

|                                                                                    |                                                      |         |
|------------------------------------------------------------------------------------|------------------------------------------------------|---------|
|  | Item no.: 231-130<br>Coding key; snap-on type        | 231-130 |
|  | Item no.: 231-500<br>Spacer; for formation of groups | 231-500 |

## Downloads

### CAD/CAE - Smart Data

#### PCB libraries

|                                                                                                                                              |                      |               |          |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------|----------|
| 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 |
| 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 |



CAD data

|                             |     |          |
|-----------------------------|-----|----------|
| 3D Download 231-841/001-000 | URL | Download |
|-----------------------------|-----|----------|



Subject to changes.