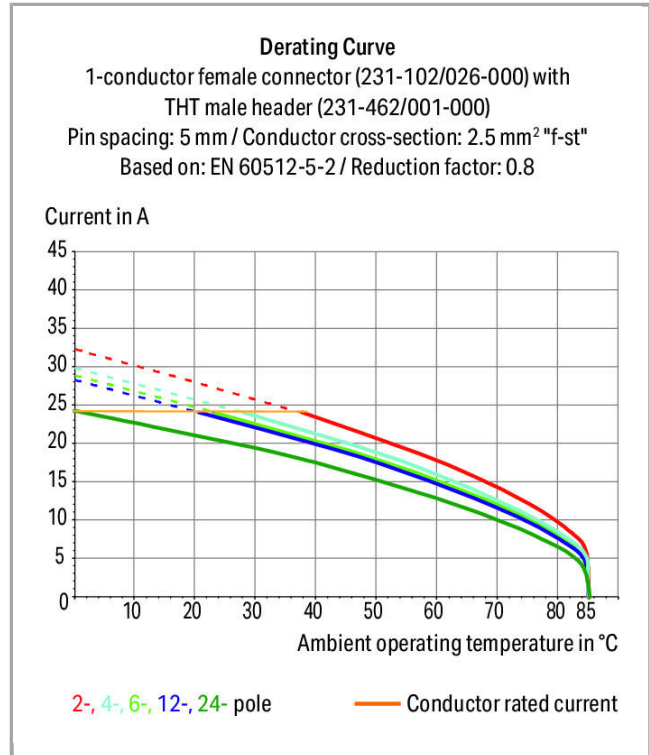


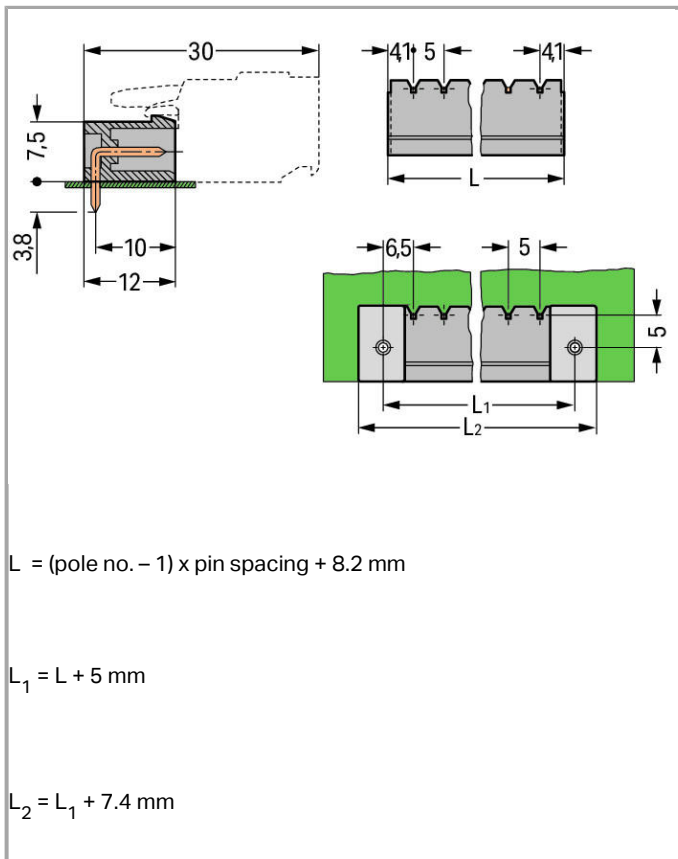
Data sheet | Item number: 231-469/001-000

THT male header; 1.2 x 1.2 mm solder pin; angled; Pin spacing 5 mm; 9-pole



231-469/001-000





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 | 9 |
| Total number of potentials | 9 |
| Number of connection types | 1 |
| Number of levels | 1 |

Geometrical Data

| | |
|-----------------------------------|--------------------------------|
| Pin spacing | 5 mm / 0.197 inch |
| Width | 48.2 mm / 1.898 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 | 1.2 x 1.2 mm |
| Drilled hole diameter (tolerance) | 1.7 ^(- ... +0.1) 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 _{Cu}) |
| Contact plating | tin-plated |
| Fire load | 0.051 MJ |
| Weight | 3.41 g |

Environmental Requirements


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

Commercial data



| | |
|--------------------|------------------------|
| Product Group | 3 (Multi Conn. System) |
| Country of origin | DE |
| GTIN | 4044918930543 |
| Customs Tariff No. | 85366990990 |

Approvals / Certificates



Country specific Approvals

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

Ship Approvals

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

UL-Approvals

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

Compatible products

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 |

Coding

| | | |
|--|---|---------|
|  | Item no.: 231-129 Coding key; snap-on type | 231-129 |
|  | Item no.: 231-500 Spacer; for formation of groups | 231-500 |

Downloads

CAD/CAE - Smart Data

PCB libraries

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



| | | | |
|--|--------------------|---------------|----------|
| DesignSpark Library for WAGO Pluggable PCB Connectors (MULTI CONNECTION SYSTEM) Compatible with DesignSpark PCB Version 4.x or higher | 2.1 Oct 6, 2014 | zip 6.1 MB | Download |
| EAGLE Library for WAGO Pluggable PCB Connectors (MULTI CONNECTION SYSTEM) Compatible with EAGLE PCB Design Software Version 6.x or higher | 2.1 Oct 6, 2014 | zip 6.2 MB | Download |
| CAD data | | | |
| 3D Download 231-469/001-000 | | URL | Download |

Subject to changes.