

Data sheet | Item number: 231-139/001-000/105-604

THR male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 9-pole; black

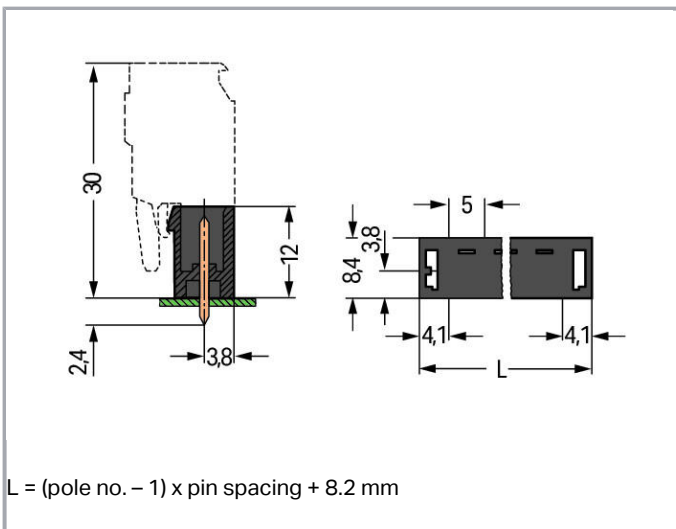
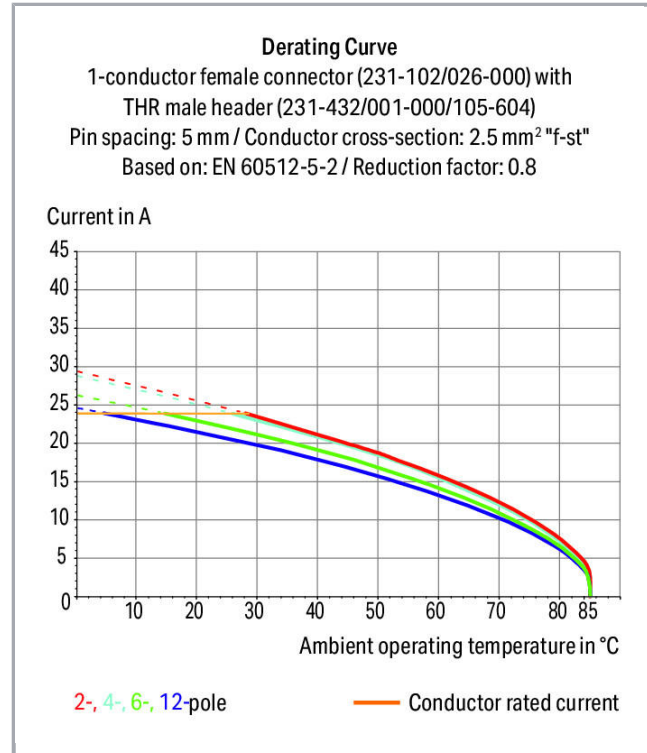


www.wago.com/231-139/001-000/105-604



RoHS Compliant

Color:



Subject to changes. Please also observe the further product documentation!

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Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Item description

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- 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

| 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 |
| Legend (ratings) | (III / 2) $\hat{=}$ Overvoltage category III / Pollution degree 2 |

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 1059 |

Approvals per UL 1977

| | |
|---|-------|
| Rated voltage per UL 1977 (factory wiring only) | 600 V |
| Rated current per UL 1977 (factory wiring only) | 10 A |

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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 | 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 | 14.4 mm / 0.567 inch |
| Height from the surface | 12 mm / 0.472 inch |
| Depth | 8.4 mm / 0.331 inch |
| Solder pin length | 2.4 mm |
| Solder pin dimensions | 1 x 1 mm |
| Plated through-hole diameter (THR) | 1.4 ^(+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 | 90° |

PCB contact

| | |
|-------------------------------------|---|
| PCB contact | THR |
| Solder pin arrangement | over the entire male connector, in line |
| Number of solder pins per potential | 1 |

Material Data

| | |
|-------|-------|
| Color | black |
|-------|-------|

Subject to changes. Please also observe the further product documentation!

| | |
|-----------------------------|--|
| Material group | I |
| Insulating material | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0 |
| Contact material | Electrolytic copper (E _{Cu}) |
| Contact plating | tin-plated |
| Fire load | 0.051 MJ |
| Weight | 2.7 g |

Environmental Requirements


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

Commercial data


| | |
|--------------------|------------------------|
| Product Group | 3 (Multi Conn. System) |
| Packaging type | BOX |
| Country of origin | PL |
| GTIN | 4050821013648 |
| 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 | LR 18677-25 |



Ship Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---|--------------------------|------------------|
|  | ABS American Bureau of Shipping | - | 19-HG1869876-PDA |

UL-Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|----------|--------------------------|------------------|
| | | | |

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| | | | |
|--|---|---------|---------------------|
|  | UL Underwriters Laboratories Inc. | UL 1059 | 20190731- E45172 |
|  | UR UL International Germany GmbH | UL 1977 | E45171 |

Counterpart



Item no. 231-109/026-000

1-conductor female plug; 2.5 mm²; Pin spacing 5 mm; 9-pole; 2,50 mm²; gray

www.wago.com/231-109/026-000

Compatible products

Marking accessories



Item no.: 210-833

Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white

www.wago.com/210-833

Item no.: 210-834

Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white

www.wago.com/210-834

Coding



Item no.: 231-129

Coding key; snap-on type; light gray

www.wago.com/231-129

Item no.: 231-500

Spacer; for formation of groups; light gray

www.wago.com/231-500

Downloads

Documentation

Additional Information

Technical explanations

Apr 3, 2019

pdf
3.6 MB

Download

CAD/CAE-Data

CAD data

2D/3D Models 231-139/001-000/105-604

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CAE data

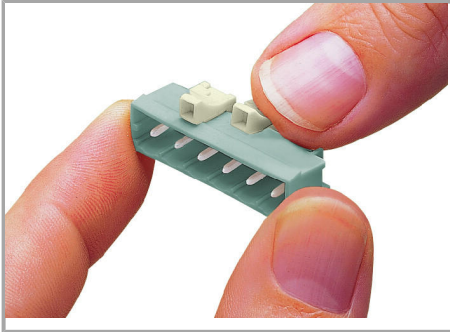
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Installation Notes

Coding



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

Product family

MCS MIDI Classic

[Learn more about the product family.](#)

[Show all products from the family](#)

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