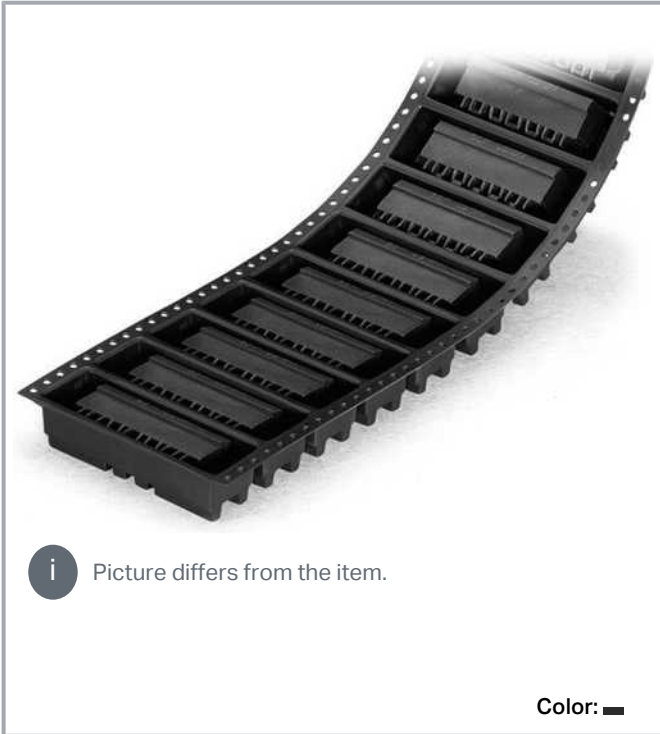


Data sheet | Item number: 231-441/001-000/105-604/997-409

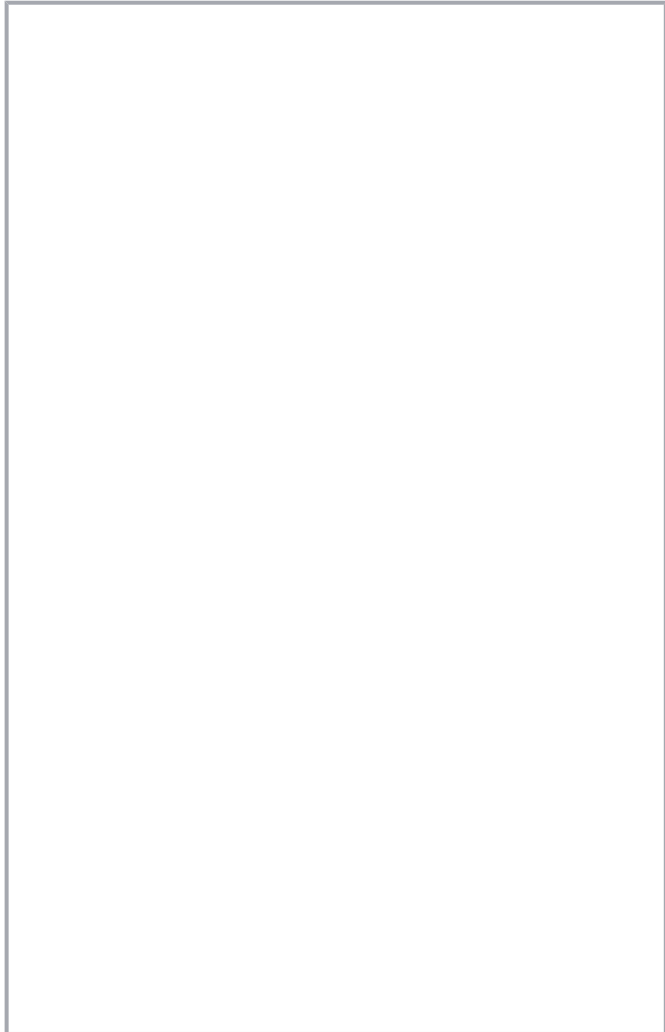
Male header; 11-pole; THR; 1.0 x 1.0 mm solder pin; angled; pin spacing 5 mm; in tape-and-reel packaging; black

www.wago.com/231-441_001-000_105-604_997-409



 Picture differs from the item.

Color: 



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

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
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Dimensions in mm

$$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$$
$$L_1 = L + 4.8 \text{ mm}$$
$$L_2 = L_1 + 7.2 \text{ mm}$$

Dimensions in mm

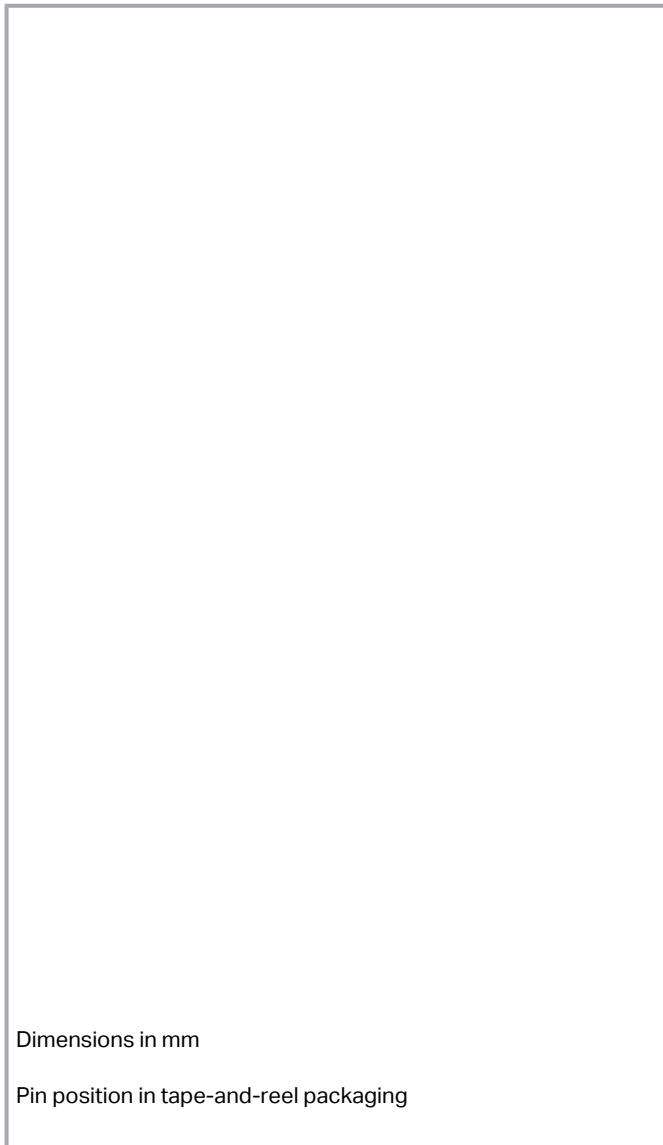
W = tape width

R = feed direction

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

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Dimensions in mm

Pin position in tape-and-reel packaging

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

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

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Data Notes

Safety information 1

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must 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.

Variants:

Other pole numbers
Gold-plated or partially gold-plated contact surfaces
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>

Electrical data

IEC Approvals

| Ratings per | IEC/EN 60664-1 |
|-----------------------------|--|
| Rated voltage (III / 3) | 320 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated voltage (III/2) | 320 V |
| Rated surge voltage (III/2) | 4 kV |
| Nominal voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |
| Rated current | 12 A |
| Legend (ratings) | (III / 2) \triangleq Overvoltage category III / Pollution degree 2 |

UL Approvals

| 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 |

Ratings per UL

| | |
|-----------------------|-------|
| Rated voltage UL 1977 | 600 V |
| Rated current UL 1977 | 10 A |

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

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CSA Approvals

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

| | |
|----------------------------|----|
| Total number of potentials | 11 |
| Number of connection types | 1 |
| Number of levels | 1 |

Connection 1

| | |
|-----------------|----|
| Number of poles | 11 |
|-----------------|----|

Physical data

| | |
|--|--------------------------|
| Pin spacing | 5 mm / 0.197 inch |
| Width | 58.2 mm / 2.291 inch |
| Height | 10.8 mm / 0.425 inch |
| Height from the surface | 8.4 mm / 0.331 inch |
| Depth | 12 mm / 0.472 inch |
| Solder pin length | 2.4 mm |
| Solder pin dimensions | 1 x 1 mm |
| Plated through-hole diameter (THR) | 1.4 ^(+0.1) mm |
| Reel diameter of tape-and-reel packaging | 330 mm |
| Tape width | 88 mm |

Plug-in connection

| | |
|------------------------------------|---------------------|
| Contact type (pluggable connector) | Male connector/plug |
| Connector (connection type) | for PCB |
| Mismating protection | No |
| Mating direction to the PCB | 0° |
| Locking of plug-in connection | Without |

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

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 |
| Material group | I |
| Insulation material | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0 |
| Contact material | Electrolytic copper (E _{Cu}) |
| Contact plating | tin-plated |
| Weight of insulation material | 2.48 g |
| Weight | 7.3 g |

Environmental requirements


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

Commercial data

| | |
|-----------------------|---------------|
| PU (SPU) | 170 Stück |
| Packaging type | bag |
| Country of origin | DE |
| GTIN | 4055143706568 |
| Customs tariff number | 85366990990 |

Approvals / Certificates

Country specific Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---------------------------------|--------------------------|------------------|
|  | CSA DEKRA Certification B.V. | C22.2 | 1466354 |

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

Counterpart



Item no.231-111/026-000

Female plug; 11-pole; 12 AWG max; pin spacing 5 mm; 1 conductor per pole; gray

www.wago.com/231-111/026-000

Optional accessories

Coding

Intermediate plate



Item no.: 231-500

Spacer; for formation of groups; light gray

www.wago.com/231-500

Coding



Item no.: 231-129

Coding key; snap-on type; light gray

www.wago.com/231-129

Downloads

Environmental Product Compliance

Compliance Search

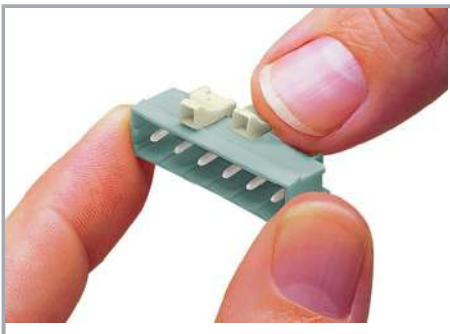
Environmental Product Compliance 231-441/001-000/105-604/997-409

URL

Download

THR male header; 1.0 x 1.0 mm solder pin; angled; in tape-and-reel packaging; Pin spacing 5 mm; 11-pole; black

Installation Notes



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

Product family

MCS MIDI Classic

[Show all products from the family](#)

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