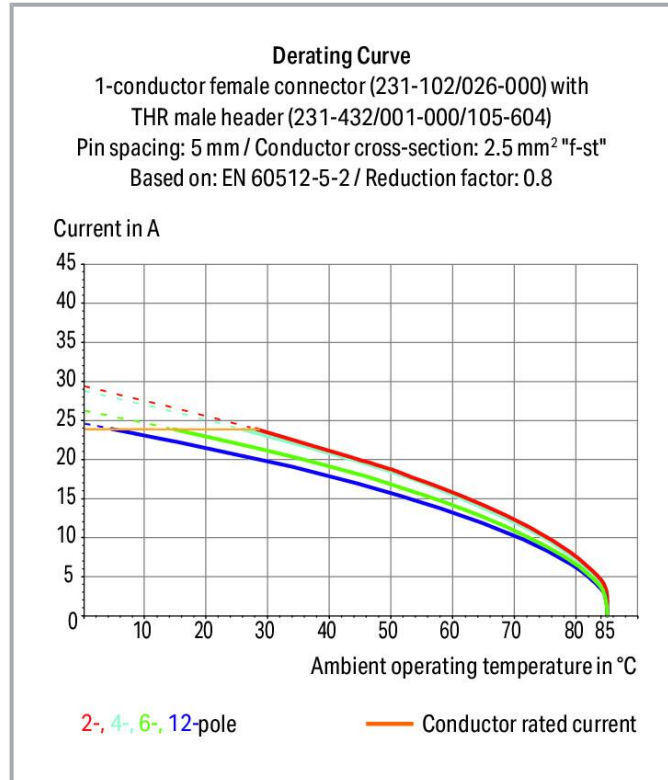
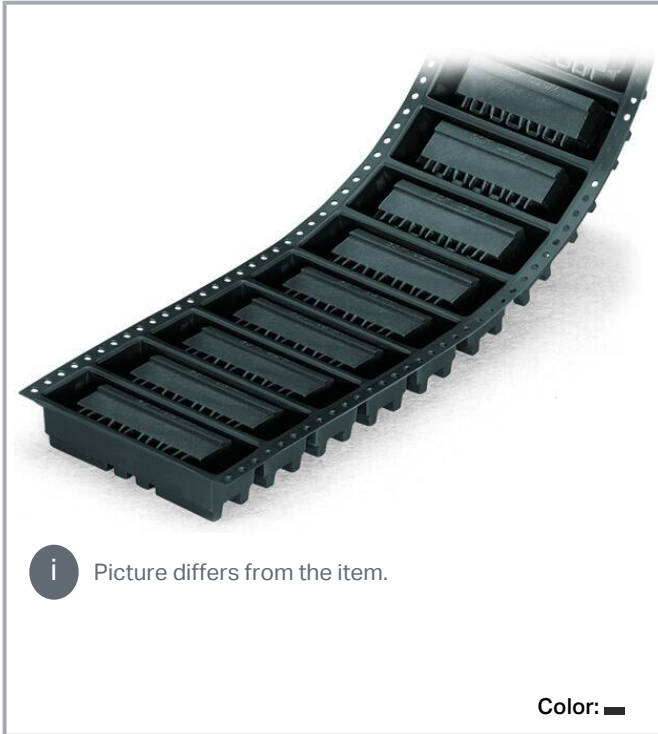


Data sheet | Item number: 231-432/001-000/105-604/997-405

THR male header; 1.0 x 1.0 mm solder pin; angled; in tape-and-reel packaging; Pin spacing 5 mm; 2-pole; black



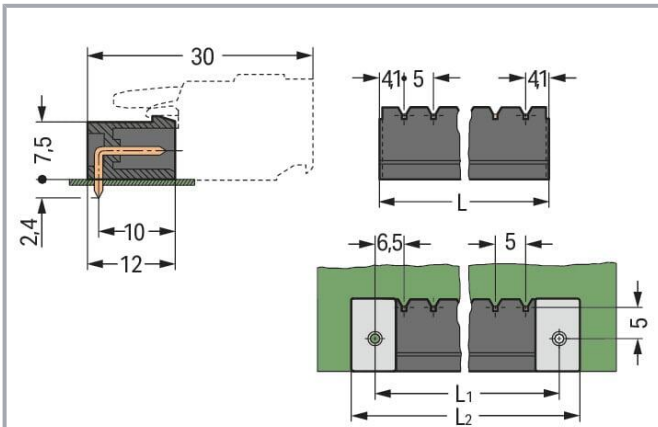
www.wago.com/231-432/001-000/105-604/997-405



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

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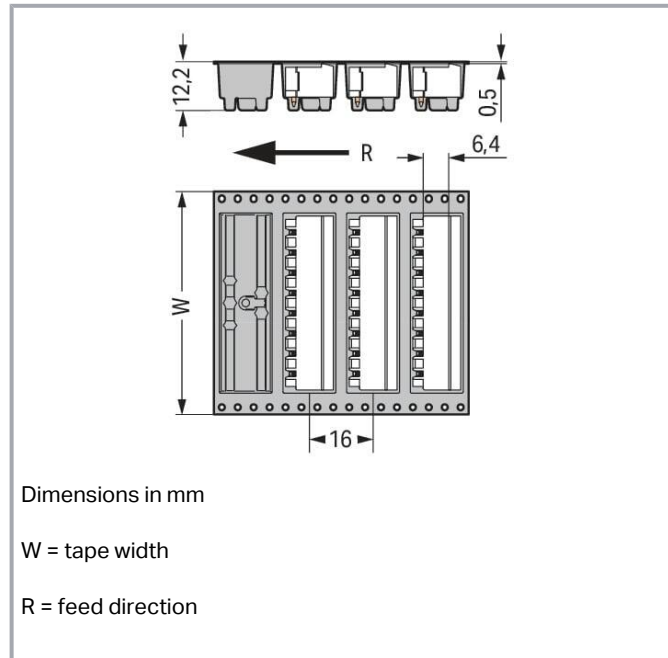


Dimensions in mm

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

$$L_1 = L + 4.8 \text{ mm}$$

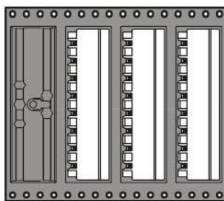
$$L_2 = L_1 + 7.2 \text{ mm}$$



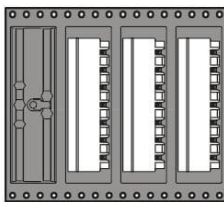
Dimensions in mm

W = tape width

R = feed direction



Position with
even number of
poles



Position with odd
number of poles

Dimensions in mm

Pin position in tape-and-reel packaging

Item description

- THR male headers for reflow soldering in SMT applications

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- 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

Data

Notes

Safety information

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. 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

Ratings per IEC/EN

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

Ratings per UL 1059

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

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Ratings per UL 1977

Rated voltage (UL 1977)	600 V
Rated current UL 1977	10 A

Ratings per CSA

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	2
Number of connection types	1
Number of levels	1

Connection 1

Pole number	2
-------------	---

Physical data

Pin spacing	5 mm / 0.197 inches
Width	13.2 mm / 0.52 inches
Height	10.8 mm / 0.425 inches
Height from the surface	8.4 mm / 0.331 inches
Depth	12 mm / 0.472 inches
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	32 mm

Mechanical Data

Variable coding	Yes
Anti-rotation protection	Yes

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



Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
Mismating protection	No
Plugging without loss of pin spacing	No
Mating direction to the PCB	0°
Locking of plug-in connection	none

PCB contact

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

Material Data

Note (material data)	Information on material specifications can be found here
Color	black
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{Cu})
Contact plating	Tin
Fire load	0.02 MJ
Weight	0.8 g
MSL gemäß J-STD 020D	1

Environmental requirements

Limit temperature range	-60 ... +100 °C
Processing temperature	-35 ... +60 °C

Commercial data

eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 8.0	EC002637
ETIM 7.0	EC002637

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PU (SPU)	170 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918936385
Customs tariff number	85366990990

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General approvals

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

Counterpart



Item no. 231-102/026-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 2-pole; 2,50 mm²; gray

www.wago.com/231-102/026-000

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

Documentation

Additional Information

Technical Section

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Technical explanations	2019 Apr 3	pdf 2.0 MB	Download
THR Soldering Process		pdf 548.2 kB	Download

CAD/CAE-Data

CAE data

EPLAN Data Portal 231-432/001-000/105-604/997-405	URL	Download
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CAD data

2D/3D Models 231-432/001-000/105-604/997-405	URL	Download
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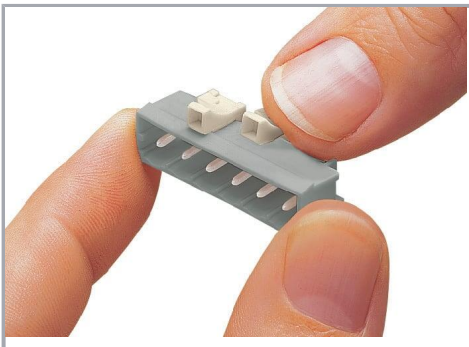
Environmental Product Compliance

Compliance Search

Environmental Product Compliance 231-432/001-000/105-604/997-405	URL	Download
THR male header; 1.0 x 1.0 mm solder pin; angled; in tape-and-reel packaging; Pin spacing 5 mm; 2-pole; black		

Installation Notes

Coding



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

Product family

MCS MIDI Classic

[Show all products from the family](#)

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