

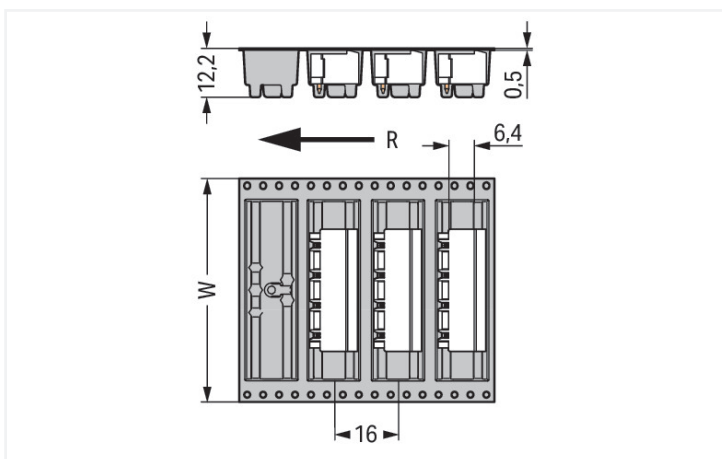
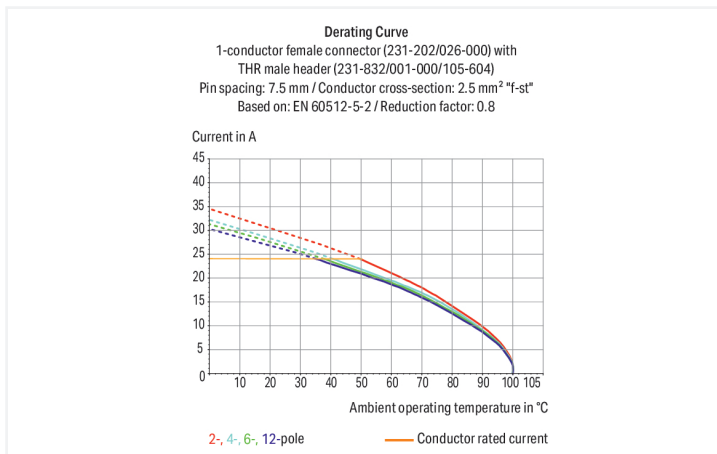
Data Sheet | Item Number: 231-839/001-000/105-604/997-409
 THR male header; 1.0 x 1.0 mm solder pin; angled; in tape-and-reel packaging; Pin spacing 7.5 mm; 9-pole; black

<https://www.wago.com/231-839/001-000/105-604/997-409>

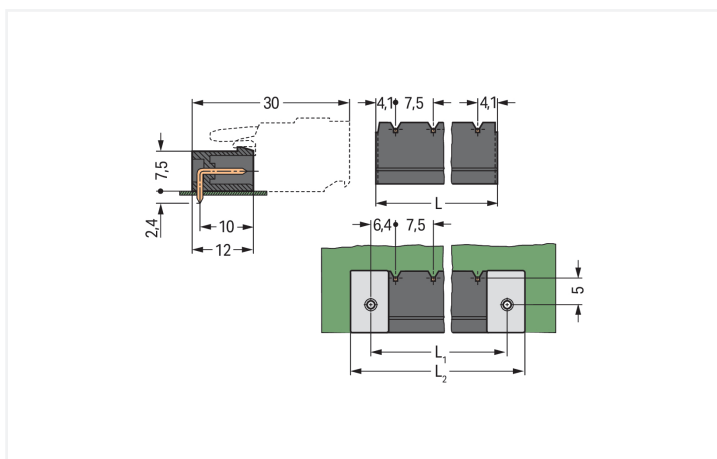


Color: ■ black

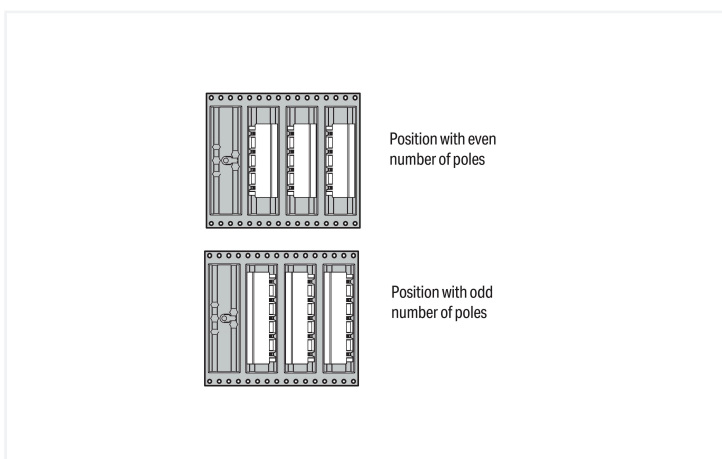
Similar to illustration



Dimensions in mm
 W = tape width R = feed direction



Dimensions in mm
 $L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L_1 = L + 5 \text{ mm}$
 $L_2 = L_1 + 7.4 \text{ mm}$



Dimensions in mm
 Pin position in tape-and-reel packaging



Male connector, 231 Series, solder pin dimensions 1 x 1 mm

Error-free electrical installations are guaranteed with this male connector (item number 231-839/001-000/105-604/997-409). The item's dimensions are (68.2 x 10.8 x 12) mm (width x height x depth).

The contact surface is coated with tin. The pcb connector is designed for THR soldering.

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 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	500 V	630 V	1000 V
Rated impulse withstand voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Approvals per	UL 1977
Rated voltage	600 V
Rated current	10 A

Approvals per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data

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

Connection 1	
Pole number	9

Physical data

Pin spacing	7.5 mm / 0.295 inches
Width	68.2 mm / 2.685 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	88 mm

Mechanical data

Variable coding	Yes
Anti-rotation protection	Yes

Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
Mismating protection	No
Mating direction to the PCB	0°

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 (main housing)	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{Cu})
Contact Plating	Tin
Fire load	0.086 MJ
Weight	4 g
MSL per J-STD 020D	1

Environmental requirements

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

Commercial data

PU (SPU)	330 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4050821043195
Customs tariff number	85366930000

Product Classification

UNSPSC	39121409
eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 9.0	EC002637
ETIM 10.0	EC002637
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status Compliant, No Exemption

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
CSA DEKRA Certification B.V.	C22.2	1466354
UR Underwriters Laboratories Inc.	UL 1059	E45172

Downloads

Environmental Product Compliance

Compliance Search ↓

Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	↓
		pdf 535.32 KB	↓

CAD/CAE-Data

CAD data ↓

PCB Design ↓

↓

1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket



Item No.: [231-209/026-000](#)

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 9-pole; gray

1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding



Item No.: [231-129](#)

Coding key; snap-on type; light gray

1.2.1.2 Intermediate plate



Item No.: [231-500](#)

Spacer; for formation of groups; light gray

1.2.2 Installation

1.2.2.1 Mounting accessories

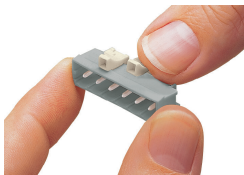


Item No.: [231-193](#)

Locking device; for male connectors; 1 part; gray

Installation Notes

Coding



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