

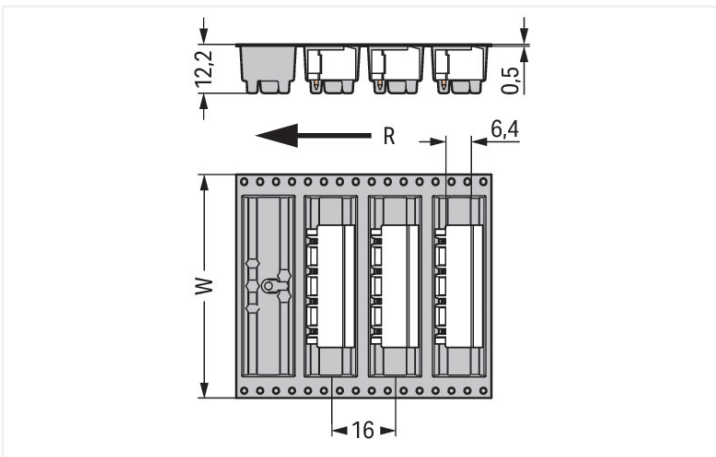
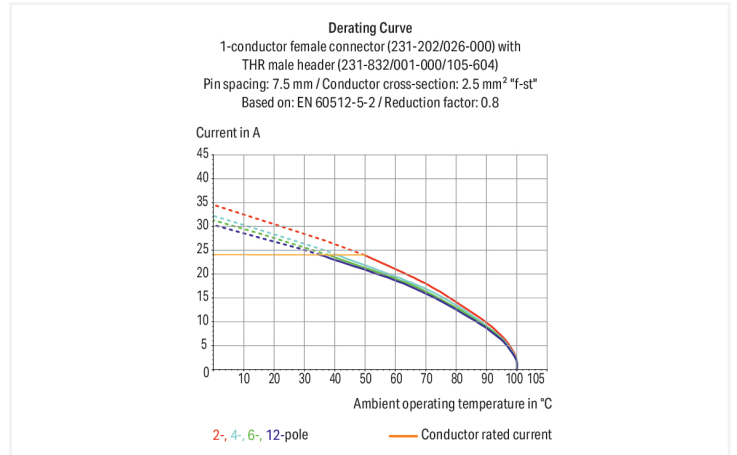
**Data Sheet | Item Number: 231-838/001-000/105-604/997-409**  
 THR male header; 1.0 x 1.0 mm solder pin; angled; in tape-and-reel packaging; Pin spacing 7.5 mm; 8-pole; black

<https://www.wago.com/231-838/001-000/105-604/997-409>

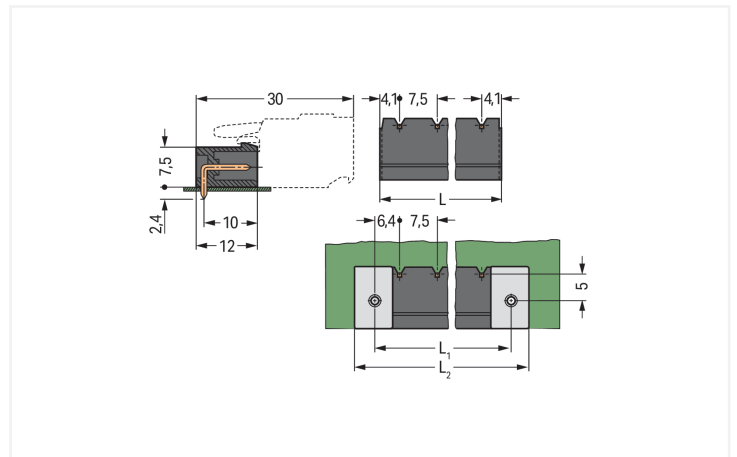


Color: ■ black

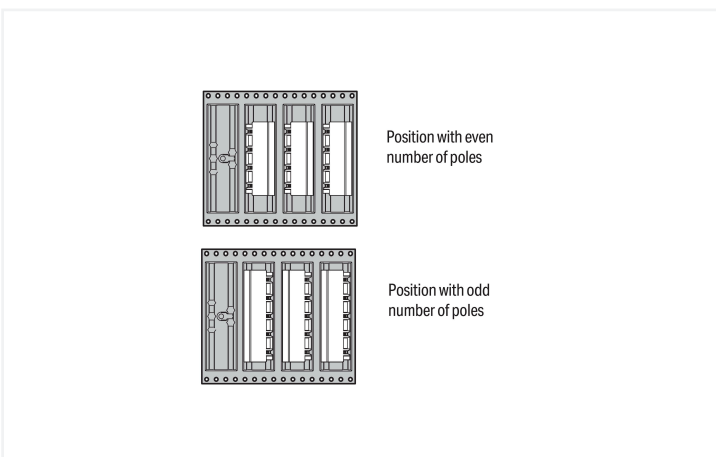
Similar to illustration



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, black

Error-free electrical installations are guaranteed with this male connector (item number 231-838/001-000/105-604/997-409). Dimensions: (60.7 x 10.8 x 12) mm (width x height x depth).

The contact surface is coated with tin. THR is used to assemble the pcb connector.

**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				Approvals per UL 1059			
	III	III	II	Use group	B	C	D
Overvoltage category	III	III	II	Rated voltage	300 V	-	300 V
Pollution degree	3	2	2	Rated current	10 A	-	10 A
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 1977		Approvals per CSA			
	600 V	Use group	B	C	D
Rated voltage	600 V	Rated voltage	300 V	-	300 V
Rated current	10 A	Rated current	10 A	-	10 A

**Connection Data**

		Connection 1	
Total number of potentials	8	Pole number	8
Number of connection types	1		
Number of levels	1		

**Physical data**

Pin spacing	7.5 mm / 0.295 inches
Width	60.7 mm / 2.39 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)	<a href="#">Information on material specifications can be found here</a>
Color	black
Material group	I
Insulation material (main housing)	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact Plating	Tin
Fire load	0.077 MJ
Weight	3.6 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	4050821043188
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.:** [231-208/026-000](#)

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 7.5 mm; 8-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

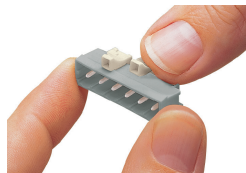


**Item No.:** [231-193](#)

Locking device; for male connectors; 1 part; gray

## Installation Notes

### Coding



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