

# Data Sheet | Item Number: 231-139/001-000/105-604/997-409

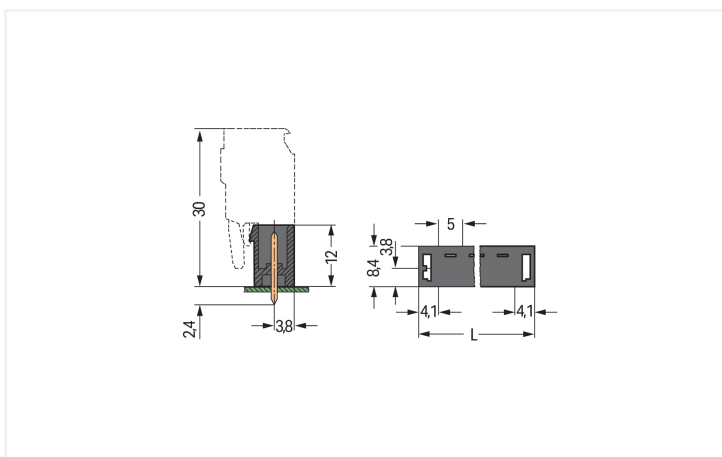
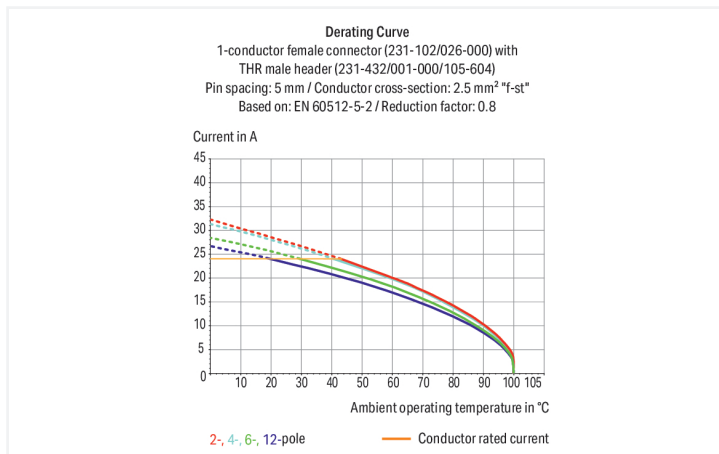
THR male header; 1.0 x 1.0 mm solder pin; straight; in tape-and-reel packaging; Pin spacing 5 mm; 9-pole; black

<https://www.wago.com/231-139/001-000/105-604/997-409>



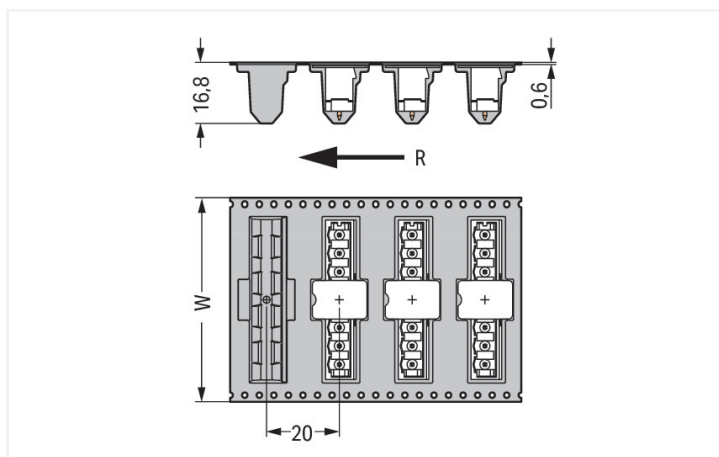
Color: ■ black

Similar to illustration



Dimensions in mm

L = (pole no. - 1) x pin spacing + 8.2 mm



Dimensions in mm

W = tape width R = feed direction

Male connector, 231 Series, with 5 mm pin spacing

Effortless electrical installations are guaranteed with this male connector (item number 231-139/001-000/105-604/997-409). The dimensions are (48.2 x 14.4 x 8.4) mm (width x height x depth).

Tin is used for coating the contact surfaces. THR is used to solder 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	320 V	320 V	630 V				
Rated impulse withstand voltage	4 kV	4 kV	4 kV				
Rated current	12 A	12 A	12 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
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## Physical data

Pin spacing	5 mm / 0.197 inches
Width	48.2 mm / 1.898 inches
Height	14.4 mm / 0.567 inches
Height from the surface	12 mm / 0.472 inches
Depth	8.4 mm / 0.331 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	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

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 MJ
Weight of insulation material	2.07 g
Weight	3.1 g
MSL per J-STD 020D	1

### Environmental requirements

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

### Commercial data

PU (SPU)	170 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143697958
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

### Downloads

#### Environmental Product Compliance

Compliance Search
<a href="#">↓</a>

### Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	<a href="#">↓</a>
		pdf 535.32 KB	<a href="#">↓</a>

### CAD/CAE-Data

CAD data
<a href="#">↓</a>

PCB Design
<a href="#">↓</a>
<a href="#">↓</a>

### 1 Compatible Products

#### 1.1 System counterpart

##### 1.1.1 Female connector/socket



**Item No.: 231-109/026-000**  
 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 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

## Installation Notes

### Coding



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