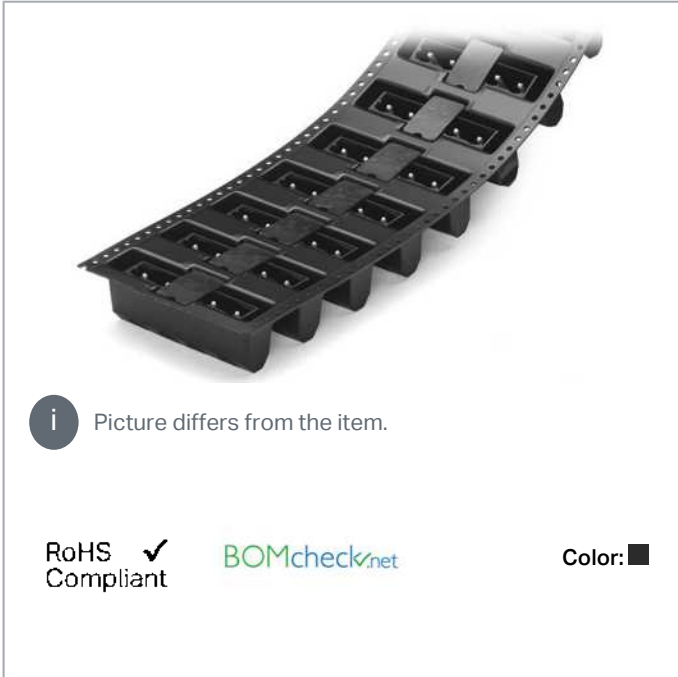


# Data sheet | Item number: 231-239/001-000/105-604/997-409

Male header; 9-pole; THR; 1.0 x 1.0 mm solder pin; straight; pin spacing 7.5 mm; in tape-and-reel packaging; black



[www.wago.com/231-239\\_001-000\\_105-604\\_997-409](http://www.wago.com/231-239_001-000_105-604_997-409)

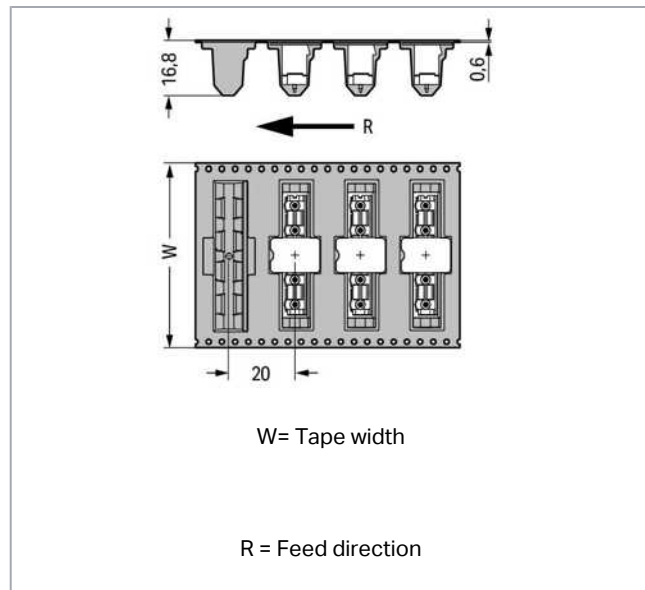
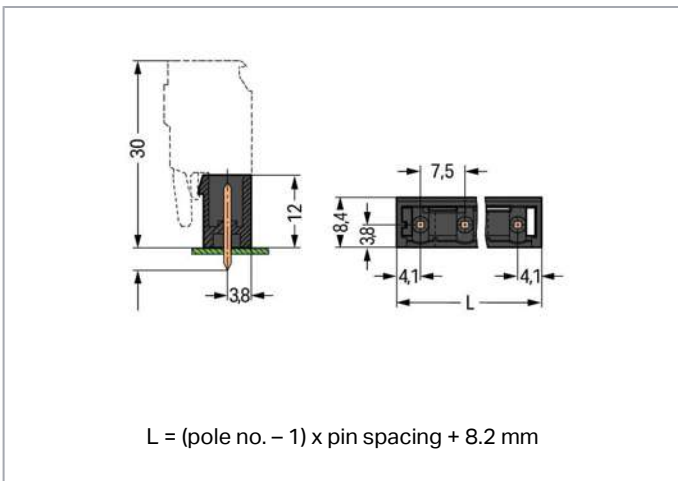
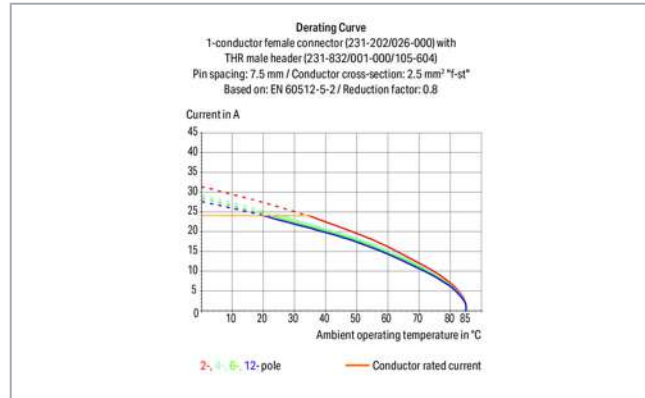


**i** Picture differs from the item.

RoHS  Compliant

BOMcheck.net

Color:



## Item description

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  
Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

Do you have any questions about our products?  
We are always happy to take your call at {0}.



- 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

**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.

**Data**

**Electrical data**

**Ratings per IEC/EN 60664-1**

Ratings per	IEC/EN 60664-1
Rated voltage (III / 3)	500 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Nominal voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
Rated current	12 A
Legend (ratings)	(III / 2) $\hat{=}$ 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

**Ratings per UL 1977**

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

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



### 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

Pole No.	9
Total number of potentials	9
Number of connection types	1
Number of levels	1

### Physical data

Pin spacing	7.5 mm / 0.295 inch
Width	68.2 mm / 2.685 inch
Height	14.4 mm / 0.567 inch
Height from the surface	12 mm / 0.472 inch
Depth	8.4 mm / 0.331 inch
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 <sup>(+0.1)</sup> 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	90°

### PCB contact

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

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

## Material Data

Color	black
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	tin-plated
Weight	3 g

## Environmental Requirements


Limit temperature range	-60 ... +100 °C
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## Commercial data


Packaging type	bag
Country of origin	DE
GTIN	4055143474825
Customs tariff number	85366990990

## Approvals / Certificates

### Country specific Approvals

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

### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UR Underwriters Laboratories Inc.	UL 1059	E45172

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

## Counterpart



Item no. 231-209/026-000

Female plug; 9-pole; 12 AWG max; pin spacing 7.5 mm; 1 conductor per pole; gray

[www.wago.com/231-209/026-000](http://www.wago.com/231-209/026-000)

## Compatible products

### Marking accessories



Item no.: 210-833

Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white

[www.wago.com/210-833](http://www.wago.com/210-833)



Item no.: 210-834

Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white

[www.wago.com/210-834](http://www.wago.com/210-834)

### Coding



Item no.: 231-130

Coding key; snap-on type; light gray

[www.wago.com/231-130](http://www.wago.com/231-130)



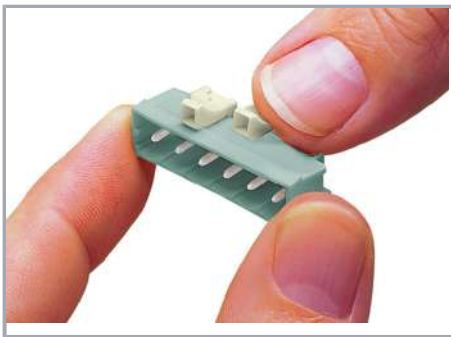
Item no.: 231-500

Spacer; for formation of groups; light gray

[www.wago.com/231-500](http://www.wago.com/231-500)

## Installation Notes

### Coding



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

## Product family

<i>MCS</i> MIDI Classic

[Show all products from the family](#)

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

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