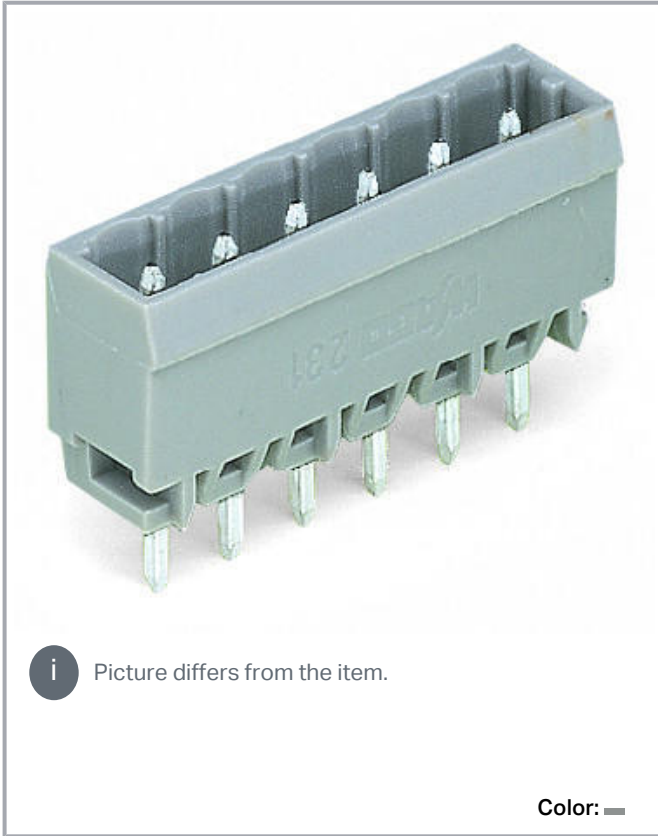


**Data sheet | Item number: 231-139/001-000**

THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 9-pole; gray

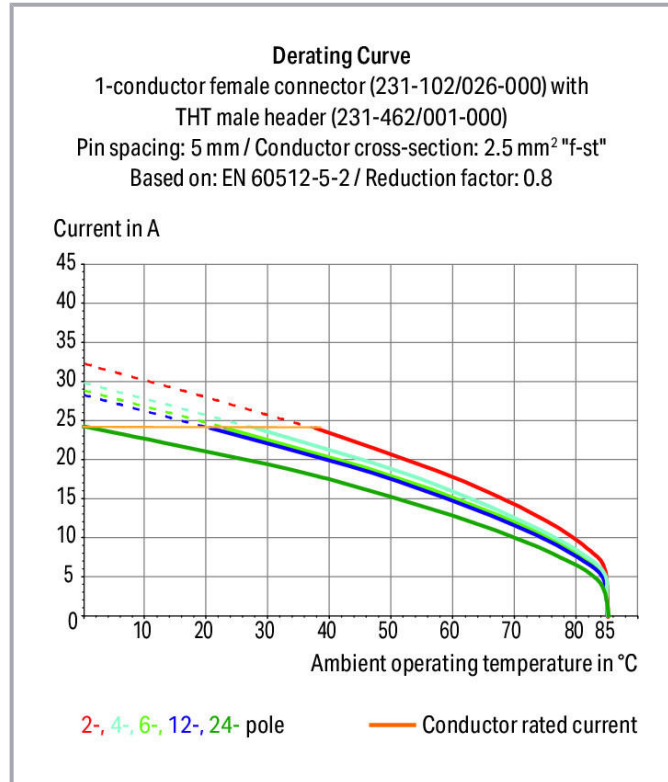


[www.wago.com/231-139\\_001-000](http://www.wago.com/231-139_001-000)



**i** Picture differs from the item.

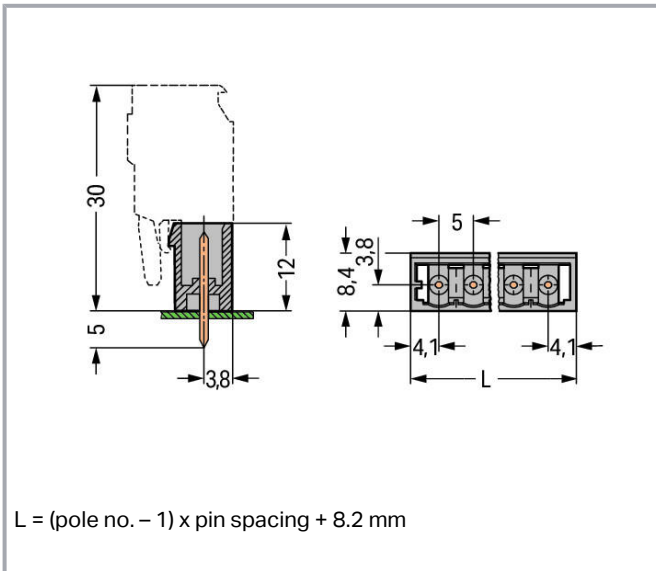
Color: —



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

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## Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 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

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Nominal voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
Rated current	12 A

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Legend (ratings)

(III / 2) ≙ Overvoltage category III / Pollution degree 2

**Ratings per UL**

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**

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**

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

**Physical data**

Pin spacing	5 mm / 0.197 inch
Width	48.2 mm / 1.898 inch
Height	17 mm / 0.669 inch
Height from the surface	12 mm / 0.472 inch
Depth	8.4 mm / 0.331 inch
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 <sup>(+0.1)</sup> mm

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
Mating direction to the PCB	90°

## PCB contact

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

## Material data

Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	tin-plated
Fire load	0.051 MJ
Weight	3 g

## Environmental requirements

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

Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	DE
GTIN	4044918863438
Customs tariff number	85366990990

## Approvals / Certificates

### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CB	IEC 61984	NL-39756

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

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DEKRA Certification B.V.






CSA

C22.2


1466354

DEKRA Certification B.V.





### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG1869876- PDA
	<b>BV</b> Bureau Veritas S.A.	IEC 60998	11915/D0 BV
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z



### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UL</b> Underwriters Laboratories Inc.	UL 1059	20190731- E45172

### Counterpart

	<b>Item no.231-109/026-000</b> 1-conductor female plug; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/231-109/026-000">www.wago.com/231-109/026-000</a>
	<b>Item no.231-2109/026-000</b> 2-conductor female connector; with integrated end plate; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/231-2109/026-000">www.wago.com/231-2109/026-000</a>
	<b>Item no.231-2109/037-000</b> 2-conductor female connector; Locking lever; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/231-2109/037-000">www.wago.com/231-2109/037-000</a>
	<b>Item no.2231-109/031-000</b> 1-conductor female plug; push-button; clamping collar; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/2231-109/031-000">www.wago.com/2231-109/031-000</a>

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



	<b>Item no.2231-109/026-000</b> 1-conductor female plug; push-button; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/2231-109/026-000">www.wago.com/2231-109/026-000</a>
	<b>Item no.2231-109/037-000</b> 1-conductor female plug; push-button; Locking lever; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/2231-109/037-000">www.wago.com/2231-109/037-000</a>
	<b>Item no.2231-109/102-000</b> 1-conductor female plug; push-button; with integrated end plate; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/2231-109/102-000">www.wago.com/2231-109/102-000</a>
	<b>Item no.231-109/037-000</b> 1-conductor female plug; Locking lever; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/231-109/037-000">www.wago.com/231-109/037-000</a>
	<b>Item no.231-109/102-000</b> 1-conductor female plug; with integrated end plate; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/231-109/102-000">www.wago.com/231-109/102-000</a>
	<b>Item no.231-109/031-000</b> 1-conductor female plug; clamping collar; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/231-109/031-000">www.wago.com/231-109/031-000</a>
	<b>Item no.231-109/027-000</b> 1-conductor female plug; clamping collar; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/231-109/027-000">www.wago.com/231-109/027-000</a>
	<b>Item no.232-109/026-000</b> 1-conductor female plug; angled; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/232-109/026-000">www.wago.com/232-109/026-000</a>
	<b>Item no.232-209/026-000</b> 1-conductor female plug; angled; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 9-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/232-209/026-000">www.wago.com/232-209/026-000</a>

## Compatible products

### Coding

	<b>Item no.: 231-129</b> Coding key; snap-on type; light gray	<a href="http://www.wago.com/231-129">www.wago.com/231-129</a>
	<b>Item no.: 231-500</b> Spacer; for formation of groups; light gray	<a href="http://www.wago.com/231-500">www.wago.com/231-500</a>

### Marking accessories

	<b>Item no.: 210-833</b> Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-833">www.wago.com/210-833</a>
	<b>Item no.: 210-834</b> Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-834">www.wago.com/210-834</a>

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## Downloads

### Documentation

#### Additional Information

Technical explanations	2019 Apr 3	pdf 2.0 MB	Download
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## CAD/CAE-Data

### CAD data

2D/3D Models 231-139/001-000	URL	Download
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### CAE data

EPLAN Data Portal 231-139/001-000	URL	Download
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EPLAN Data Portal 231-139/001-000	URL	Download
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ZUKEN Portal 231-139/001-000	URL	Download
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### PCB Design

Symbol and Footprint 231-139/001-000	URL	Download
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CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

#### Supported formats:

- Accel EDA 14 & 15
- Altium 6 to current version
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0

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- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 231-139/001-000

[URL](#)

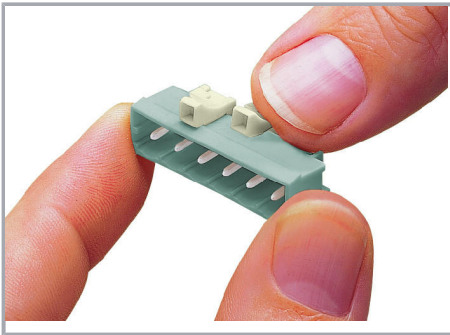
[Download](#)

THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 9-pole; gray

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## Installation Notes

### Coding



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

## Product family

**<i>MCS</i> MIDI Classic**

[Show all products from the family](#)

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