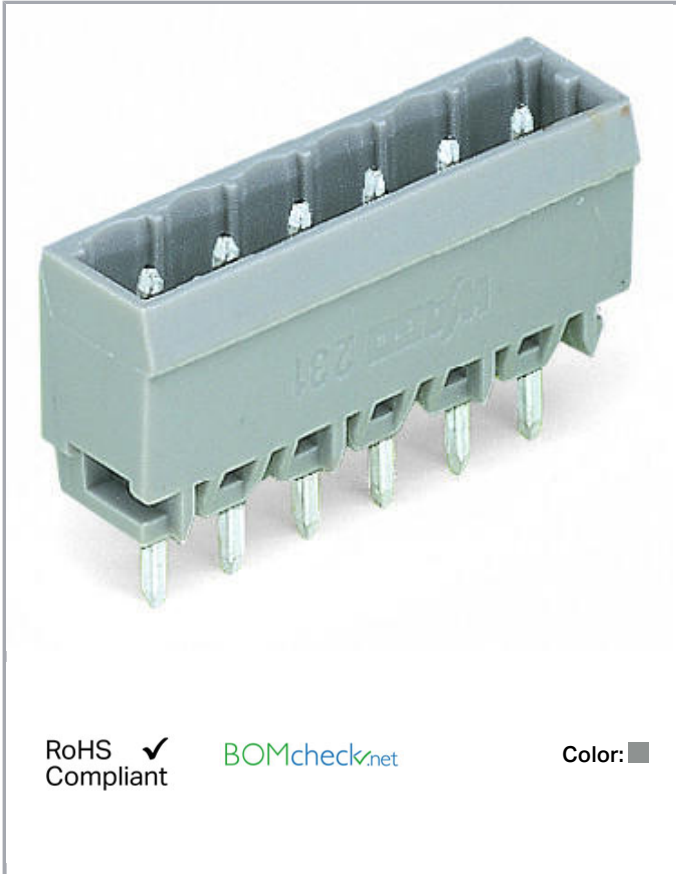


**Data sheet | Item number: 231-170/001-000**

THT male header; 1.2 x 1.2 mm solder pin; straight; Pin spacing 5 mm; 10-pole; gray

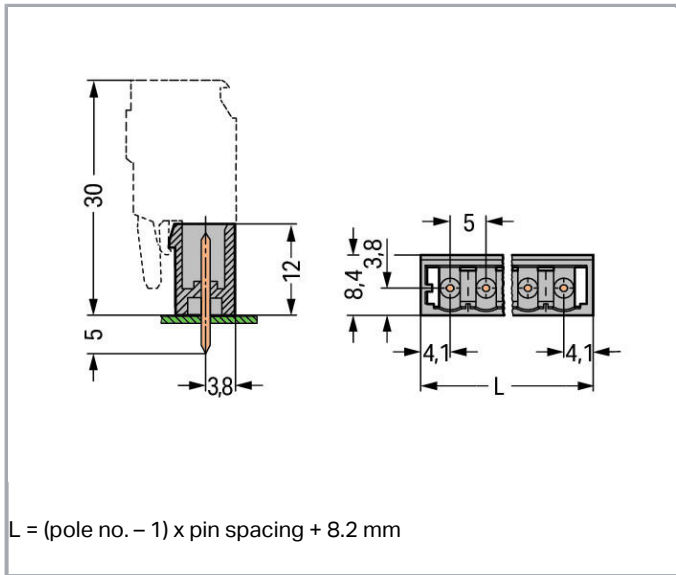
[www.wago.com/231-170/001-000](http://www.wago.com/231-170/001-000)



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
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers

### Safety information 1:

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall 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)	250 V
Rated impulse voltage (III / 3)	4 kV
Rated voltage (III / 2)	320 V
Rated impulse voltage (III / 2)	4 kV
Rated voltage (II / 2)	630 V
Rated impulse voltage (II / 2)	4 kV
Rated current	16 A

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Legend (ratings)

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

### Approvals per UL 1059

Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	15 A
Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	10 A
Approvals per	UL 1059

### Approvals per UL 1977

Rated voltage per UL 1977 (factory wiring only)	600 V
Rated current per UL 1977 (factory wiring only)	15 A

### Approvals per CSA

Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	15 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

### Connection data

No. of poles	10
Total number of potentials	10
Number of connection types	1
Number of levels	1

### Geometrical Data

Pin spacing	5 mm / 0.197 inch
Width	53.2 mm / 2.094 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	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	1.7 <sup>(+0.1)</sup> mm

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## Plug connection

Contact type (pluggable connector)	Male connector/plug
Connector connection type	for PCBs
Mismatching 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
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	tin-plated
Fire load	0.057 MJ
Weight	3.8 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	4044918928564
Customs Tariff No.	85366990990

## Approvals / Certificates


### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
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	CB DEKRA Certification B.V.	IEC 61984	NL-39756
	CSA DEKRA Certification B.V.	C22.2	1466354

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1869876- PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	20190731- E45172
	UR UL International Germany GmbH	UL 1977	E45171

Counterpart



Item no.231-110/026-000

1-conductor female plug; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 10-pole; 2,50 mm<sup>2</sup>; gray

[www.wago.com/231-110/026-000](http://www.wago.com/231-110/026-000)

Compatible products

Marking accessories

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**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.: 231-129**  
Coding key; snap-on type; light gray

[www.wago.com/231-129](http://www.wago.com/231-129)

**Item no.: 231-500**  
Spacer; for formation of groups; light gray

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

## Downloads

### Documentation

#### Additional Information

Technical explanations	Apr 3, 2019	pdf 3.6 MB	Download
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## CAD/CAE-Data

### CAD data

2D/3D Models 231-170/001-000	URL	Download
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### CAE data

EPLAN Data Portal 231-170/001-000	URL	Download
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### PCB Design

Symbol and Footprint 231-170/001-000	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

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

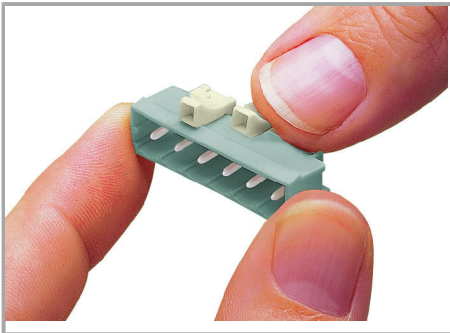
- Mentor Graphics Design Architect
- Mentor Graphics Design Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- 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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## Installation Notes

### Coding



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

### Product family

*MCS* MIDI Classic

[Learn more about the product family.](#)

[Show all products from the family](#)

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