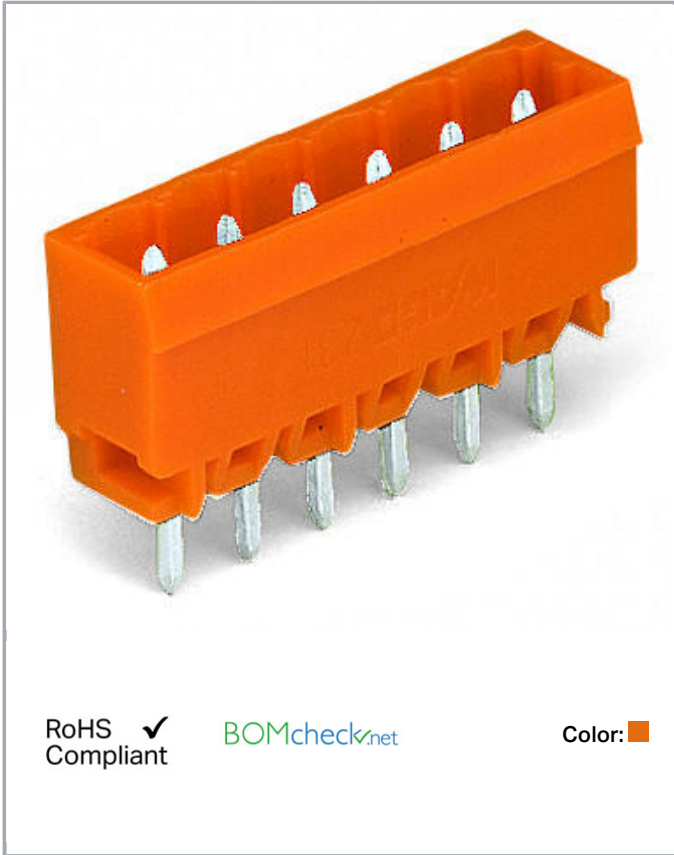


Data sheet | Item number: 231-350/001-000

THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5.08 mm; 20-pole; orange



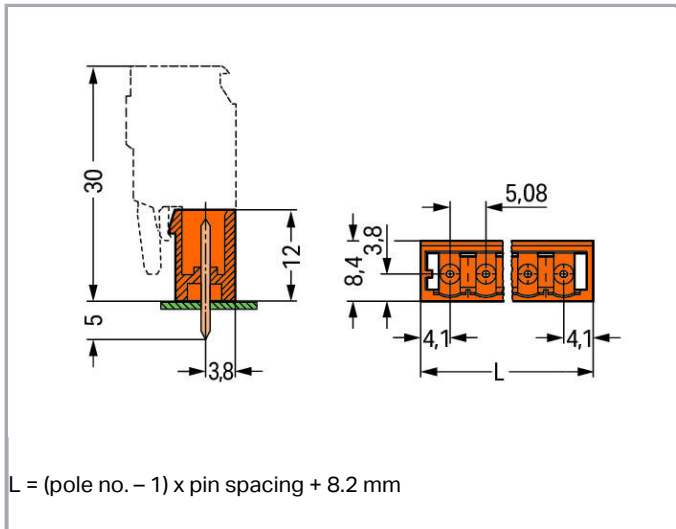
[www.wago.com/231-350/001-000](http://www.wago.com/231-350/001-000)



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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 *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)	320 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	12 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

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### 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
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)	10 A

### 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

No. of poles	20
Total number of potentials	20
Number of connection types	1
Number of levels	1

### Geometrical Data

Pin spacing	5,08 mm / 0.2 inch
Width	104,72 mm / 4.123 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 (tolerance)	1,4 <sup>(+0,1)</sup> mm

### Plug connection

Contact type (pluggable connector)	Male connector/plug
------------------------------------	---------------------

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Connector connection type	for PCBs
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	orange
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	0.113 MJ
Weight	6.5 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	PL
GTIN	4044918865890
Customs Tariff No.	85366990990

### Approvals / Certificates

#### Country specific Approvals

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

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KEMA/KEUR  
DEKRA Certification B.V.



EN 61984

2190761.01





### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG1869876- PDA

### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UL</b> UL International Germany GmbH	UL 1977	E45171
	<b>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172

### Counterpart

	<b>Item no.231-320/026-000</b> 1-conductor female plug; 2.5 mm <sup>2</sup> ; Pin spacing 5.08 mm; 20-pole; 2,50 mm <sup>2</sup> ; orange	<a href="http://www.wago.com/231-320/026-000">www.wago.com/231-320/026-000</a>
	<b>Item no.2231-320/026-000</b> 1-conductor female plug; push-button; 2.5 mm <sup>2</sup> ; Pin spacing 5.08 mm; 20-pole; 2,50 mm <sup>2</sup> ; orange	<a href="http://www.wago.com/2231-320/026-000">www.wago.com/2231-320/026-000</a>
	<b>Item no.2231-320/031-000</b> 1-conductor female plug; push-button; clamping collar; 2.5 mm <sup>2</sup> ; Pin spacing 5.08 mm; 20-pole; 2,50 mm <sup>2</sup> ; orange	<a href="http://www.wago.com/2231-320/031-000">www.wago.com/2231-320/031-000</a>
	<b>Item no.2231-320/037-000</b> 1-conductor female plug; push-button; Locking lever; 2.5 mm <sup>2</sup> ; Pin spacing 5.08 mm; 20-pole; 2,50 mm <sup>2</sup> ; orange	<a href="http://www.wago.com/2231-320/037-000">www.wago.com/2231-320/037-000</a>
	<b>Item no.2231-320/102-000</b>	<a href="http://www.wago.com/2231-320/102-000">www.wago.com/2231-320/102-000</a>

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1-conductor female plug; push-button; with integrated end plate; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange /102-000



**Item no.231-320/031-000** [www.wago.com/231-320/031-000](http://www.wago.com/231-320/031-000)  
1-conductor female plug; clamping collar; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange /031-000



**Item no.231-320/027-000** [www.wago.com/231-320/027-000](http://www.wago.com/231-320/027-000)  
1-conductor female plug; clamping collar; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange /027-000



**Item no.231-320/037-000** [www.wago.com/231-320/037-000](http://www.wago.com/231-320/037-000)  
1-conductor female plug; Locking lever; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange /037-000



**Item no.231-320/102-000** [www.wago.com/231-320/102-000](http://www.wago.com/231-320/102-000)  
1-conductor female plug; with integrated end plate; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange



**Item no.232-320/026-000** [www.wago.com/232-320/026-000](http://www.wago.com/232-320/026-000)  
1-conductor female plug; angled; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange /026-000



**Item no.232-420/026-000** [www.wago.com/232-420/026-000](http://www.wago.com/232-420/026-000)  
1-conductor female plug; angled; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange

## Compatible products

### Coding

**Item no.: 231-129** [www.wago.com/231-129](http://www.wago.com/231-129)  
Coding key; snap-on type; light gray

**Item no.: 231-500** [www.wago.com/231-500](http://www.wago.com/231-500)  
Spacer; for formation of groups; light gray

### Marking accessories



**Item no.: 210-833** [www.wago.com/210-833](http://www.wago.com/210-833)  
Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white

**Item no.: 210-834** [www.wago.com/210-834](http://www.wago.com/210-834)  
Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white

## Downloads

### Documentation

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



#### Additional Information

Technical explanations

Apr 3, 2019

pdf  
3.6 MB

[Download](#)

#### CAD/CAE-Data

##### CAD data

2D/3D Models 231-350/001-000

[URL](#)

[Download](#)

##### CAE data

EPLAN Data Portal 231-350/001-000

[URL](#)

[Download](#)

##### PCB Design

Symbol and Footprint 231-350/001-000

[URL](#)

[Download](#)

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

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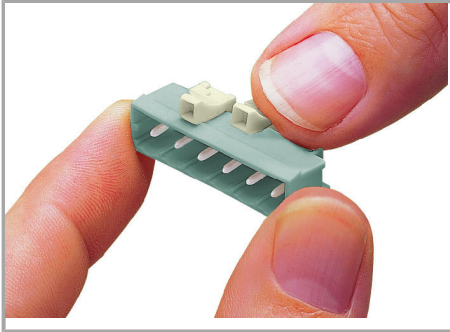
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

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](#)

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