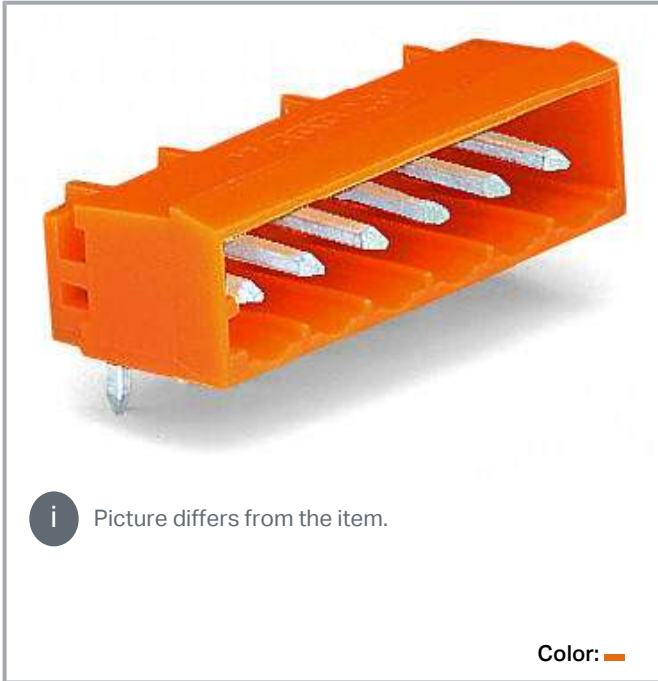


Data sheet | Item number: 231-542/001-000

Male header; 12-pole; THT; 1.0 x 1.0 mm solder pin; angled; pin spacing 5.08 mm; orange



www.wago.com/231-542_001-000



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 | Web: www.wago.us

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Dimensions in mm

$$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$$

$$L_1 = L + 5 \text{ mm}$$

$$L_2 = L_1 + 7.4 \text{ mm}$$

Item description

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

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



Data

Notes

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.

Variants:

Other pole numbers
3.8 mm pin projection for male headers with straight solder pins
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

IEC Approvals

Ratings per	IEC/EN 60664-1
Rated 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
Legend (ratings)	(III / 2) \triangleq Overvoltage category III / Pollution degree 2

UL Approvals

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

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CSA Approvals

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

Total number of potentials	12
Number of connection types	1
Number of levels	1

Connection 1

Number of poles	12
-----------------	----

Physical data

Pin spacing	5.08 mm / 0.2 inch
Width	64.08 mm / 2.523 inch
Height	12.2 mm / 0.48 inch
Height from the surface	8.4 mm / 0.331 inch
Depth	12 mm / 0.472 inch
Solder pin length	3.8 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 ^(+0.1) mm

Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
Mismating protection	No
Mating direction to the PCB	0°
Locking of plug-in connection	Without

PCB contact

PCB Contact	THT
Solder pin arrangement	over the entire male connector (in-line)

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

Number of solder pins per potential	1
-------------------------------------	---

Material data

Color	orange
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{Cu})
Contact plating	tin-plated
Fire load	0.069 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)
PU (SPU)	100 Stück
Packaging type	box
Country of origin	PL
GTIN	4044918867276
Customs tariff number	8536694040

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CB DEKRA Certification B.V.	IEC 61984	NL-39756
	CSA DEKRA Certification B.V.	C22.2	1466354
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	2190761.01

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Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1869876- PDA
	BV Bureau Veritas S.A.	IEC 60998	11915/DO BV

UL-Approvals

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

Counterpart

	Item no.231-312/026-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; 2,50 mm²; orange	www.wago.com/231-312/026-000
	Item no.231-2312/026-000 2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; with integrated end plate; 2,50 mm²; orange	www.wago.com/231-2312/026-000
	Item no.231-2312/037-000 2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; Lateral locking levers; 2,50 mm²; orange	www.wago.com/231-2312/037-000
	Item no.2231-312/026-000 Female plug; 12-pole; push-button; 12 AWG max; pin spacing 5.08 mm; 1-conductor per pole; orange	www.wago.com/2231-312/026-000
	Item no.2231-312/031-000 Female plug; 12-pole; push-button; mounting flange; 12 AWG max; pin spacing 5.08 mm; 1-conductor per pole; orange	www.wago.com/2231-312/031-000

Item no.231-312/031-000

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



1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; clamping collar; 2,50 mm²; orange www.wago.com/231-312/031-000



Item no.231-312/027-000
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; clamping collar; 2,50 mm²; orange www.wago.com/231-312/027-000



Item no.2231-312/037-000
Female plug; 12-pole; push-button; locking lever;12 AWG max; pin spacing 5.08 mm;1-conductor per pole; orange www.wago.com/2231-312/037-000



Item no.2231-312/102-000
Female plug; 12-pole; push-button; with integrated end plate;12 AWG max; pin spacing 5.08 mm;1-conductor per pole; orange www.wago.com/2231-312/102-000



Item no.231-312/037-000
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; Lateral locking levers; 2,50 mm²; orange www.wago.com/231-312/037-000



Item no.231-312/102-000
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; with integrated end plate; 2,50 mm²; orange www.wago.com/231-312/102-000



Item no.232-312/026-000
1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; 2,50 mm²; orange www.wago.com/232-312/026-000



Item no.232-412/026-000
1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; 2,50 mm²; orange www.wago.com/232-412/026-000

Optional accessories

Coding

Intermediate plate



Item no.: 231-500
Spacer; for formation of groups; light gray www.wago.com/231-500

Coding



Item no.: 231-129
Coding key; snap-on type; light gray www.wago.com/231-129

Downloads

Documentation

Additional Information

Technical explanations	2019 Apr 3	pdf 2.0 MB	Download
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Subject to changes. Please also observe the further product documentation!



CAD files

CAD data

2D/3D Models 231-542/001-000	URL	Download
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CAE data

EPLAN Data Portal 231-542/001-000	URL	Download
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EPLAN Data Portal 231-542/001-000	URL	Download
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ZUKEN Portal 231-542/001-000	URL	Download
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PCB Design

Symbol and Footprint 231-542/001-000	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
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw

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

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

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

Environmental Product Compliance

Compliance Search

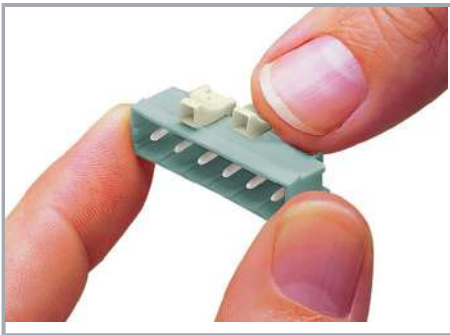
Environmental Product Compliance 231-542/001-000

[URL](#)

[Download](#)

THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5.08 mm; 12-pole; orange

Installation Notes



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

Product family

MCS MIDI Classic

[Show all products from the family](#)

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