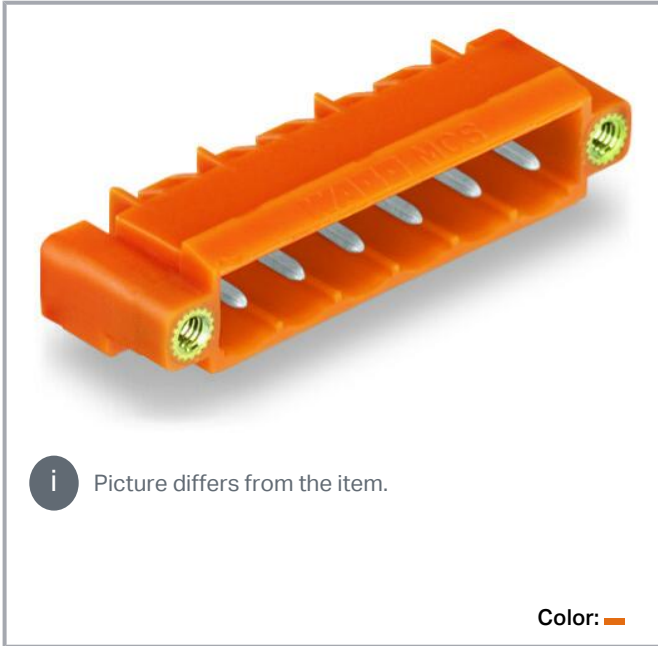


**Data sheet | Item number: 231-542/108-000**

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



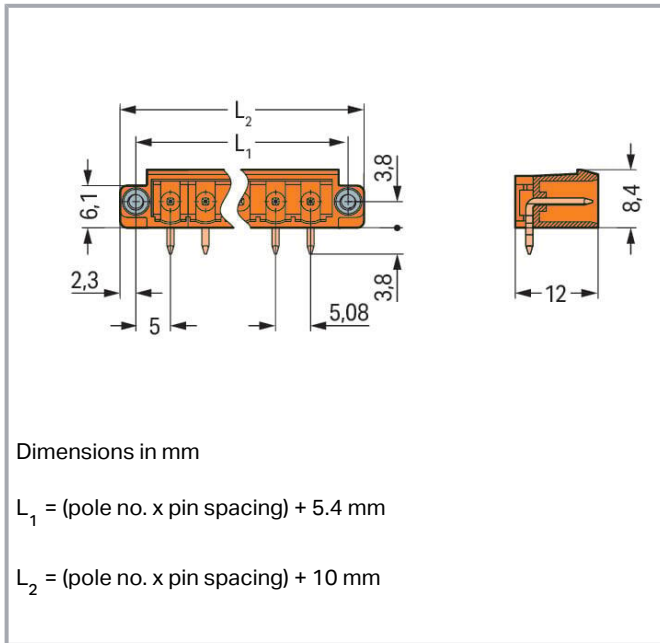
[www.wago.com/231-542/108-000](http://www.wago.com/231-542/108-000)



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

WAGO GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

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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

## Data

### Notes

#### Safety information

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. 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

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



### Ratings per IEC/EN

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

### 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

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

### Connection 1

Pole number	12
-------------	----

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



## Physical data

Pin spacing	5.08 mm / 0.2 inches
Width	70.96 mm / 2.794 inches
Height	12.2 mm / 0.48 inches
Height from the surface	8.4 mm / 0.331 inches
Depth	12 mm / 0.472 inches
Solder pin length	3.8 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 <sup>(+0.1)</sup> mm

## Mechanical Data

Variable coding	Yes
Anti-rotation protection	Yes

## Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
Mismating protection	No
Plugging without loss of pin spacing	No
Mating direction to the PCB	0°
Locking of plug-in connection	Threaded flange

## PCB contact

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

## Material Data

Note (material data)	Information on material specifications can be found here
Color	orange
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0

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Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	Tin
Fire load	0.079 MJ
Weight	4.5 g

### Environmental requirements

Limit temperature range	-60 ... +100 °C
Processing temperature	-35 ... +60 °C

### Commercial data

Product Group	3 (Multi Conn. System)
eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 8.0	EC002637
ETIM 7.0	EC002637
PU (SPU)	100 pcs
Packaging type	box
Country of origin	PL
GTIN	4044918867290
Customs tariff number	85366990990

### Environmental Product Compliance

CAS-No.	7439-92-1
REACH Candidate List Substance	Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c)
SCIP notification number (Austria)	eea20c78-8c30-4938-ad08-243c22268526
SCIP notification number (Belgium)	22a51ed4-a34f-4100-8c62-3601d20b0167
SCIP notification number (Bulgaria)	fe9b0011-53c8-4d0d-86af-5ce1acb147ab
SCIP notification number (Czech Republic)	d8decbb7-345a-493d-be53-8c8f4105c797
SCIP notification number (Denmark)	19af877e-780a-475e-931d-27210a15f7f1
SCIP notification number (Finland)	f7611494-5687-4e2e-9b59-79f0e9e52c84
SCIP notification number (France)	1242313a-8088-49a0-aeff-302ada3fa928
SCIP notification number (Germany)	7bfa2020-6ce2-4622-8637-35e551e48390
SCIP notification number (Hungary)	85af4bbb-36e3-4708-8e7d-c45a7799c2bf
SCIP notification number (Italy)	0258f3a4-fa64-4495-abe7-ee872ad98b8e

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SCIP notification number (Netherlands)	a3f1380c-8560-479a-be03-b69cff37d648
SCIP notification number (Poland)	145f3ea4-60e0-4420-acfe-8ef9474a1dd1
SCIP notification number (Romania)	4143a357-c969-49f6-973c-56d1f31cc12b
SCIP notification number (Sweden)	cd66605c-1f74-4f13-967f-46b2713a726e

## Approvals / Certificates


### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>CB</b> DEKRA Certification B.V.	IEC 61984	NL-39756 /A1
	<b>CSA</b> DEKRA Certification B.V.	C22.2	1466354
	<b>KEMA/KEUR</b> DEKRA Certification B.V.	EN 61984	71-121453
	<b>UL</b> UL International Germany GmbH	UL 1977	E45171
	<b>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172

### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>Railway</b> WAGO GmbH & Co. KG	-	Railway Ready

### Approvals for marine applications




Logo	Approval	Additional Approval Text	Certificate name
	<b>BV</b> Bureau Veritas S.A.	IEC 60998	11915/D0 BV

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## Counterpart

	<b>Item no.231-312/107-000</b> 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; Screw flange; 2,50 mm²; orange	<a href="http://www.wago.com/231-312/107-000">www.wago.com/231-312/107-000</a>
	<b>Item no.231-2312/107-000</b> 2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; Screw flange; 2,50 mm²; orange	<a href="http://www.wago.com/231-2312/107-000">www.wago.com/231-2312/107-000</a>
	<b>Item no.2231-312/107-000</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; Screw flange; 2,50 mm²; orange	<a href="http://www.wago.com/2231-312/107-000">www.wago.com/2231-312/107-000</a>

## Optional accessories

### Coding

Intermediate plate

	<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>
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>

## Downloads

### Documentation

#### Additional Information

Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.0 MB	

## CAD/CAE-Data

### CAD data

2D/3D Models 231-542/108-000	URL	Download
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### CAE data

EPLAN Data Portal 231-542/108-000	URL	Download
ZUKEN Portal 231-542/108-000	URL	Download

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EPLAN Data Portal 231-542/108-000	<a href="#">URL</a>	<a href="#">Download</a>
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### PCB Design

Symbol and Footprint 231-542/108-000	<a href="#">URL</a>	<a href="#">Download</a>
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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
- 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 231-542/108-000	<a href="#">URL</a>	<a href="#">Download</a>
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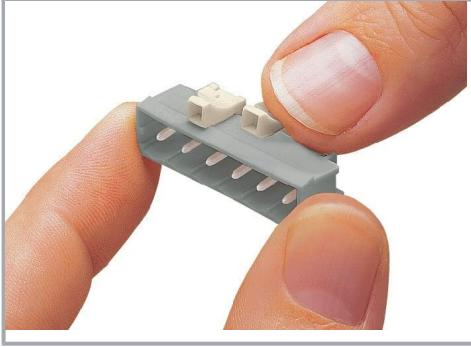


THT male header; 1.0 x 1.0 mm solder pin; angled; Threaded flange; Pin spacing 5.08 mm; 12-pole; orange

---

## Installation Notes

### Coding



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

## Product family

**MCS MIDI Classic**

[Show all products from the family](#)

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