

Data sheet | Item number: 231-739/001-000

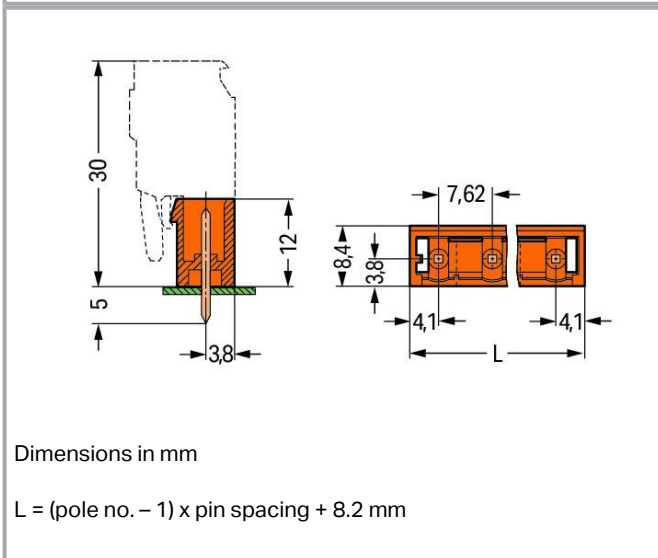
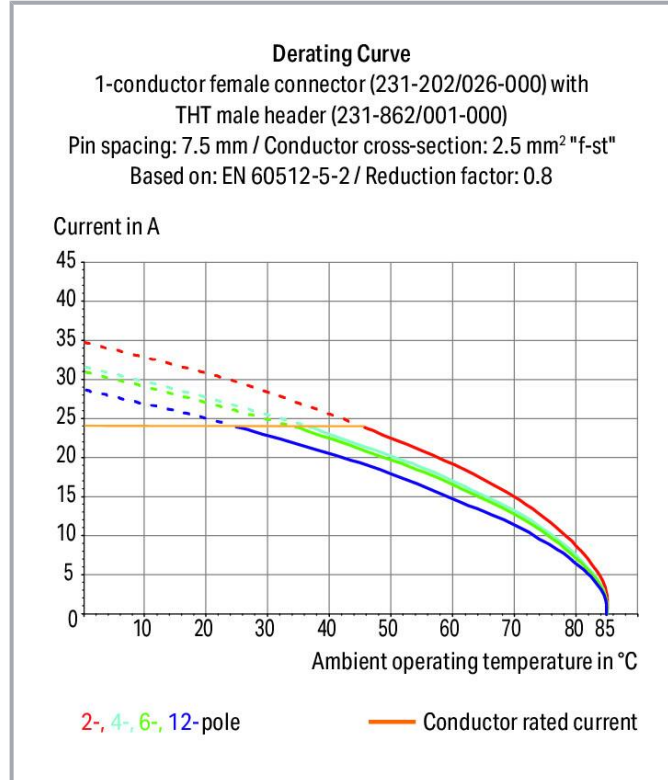
THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 7.62 mm; 9-pole; orange



[www.wago.com/231-739/001-000](http://www.wago.com/231-739/001-000)



**i** Picture differs from the item.



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

## 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

### Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	500 V
Rated impulse voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated impulse voltage (III/2)	6 kV
Nominal voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 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

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



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	9
Number of connection types	1
Number of levels	1

### Connection 1

Pole number	9
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### Physical data

Pin spacing	7.62 mm / 0.3 inches
Width	69.16 mm / 2.723 inches
Height	17 mm / 0.669 inches
Height from the surface	12 mm / 0.472 inches
Depth	8.4 mm / 0.331 inches
Solder pin length	5 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

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
Plugging without loss of pin spacing	No
Mating direction to the PCB	90 °
Locking of plug-in connection	none

## 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
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	Tin
Fire load	0.071 MJ
Weight	3.5 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

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PU (SPU)	50 pcs
Packaging type	box
Country of origin	PL
GTIN	4044918867924
Customs tariff number	85366990990


**Environmental Product Compliance**

RoHS Compliance Status	Compliant, No Exemption
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**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>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172
	<b>UR</b> Underwriters Laboratories Inc.	UL 1977	E45171

**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>ABS</b> American Bureau of Shipping	-	19-HG1869876-PDA

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BV  
Bureau Veritas S.A.

IEC 60998

11915/DO  
BV

## Counterpart



Item no.231-709/026-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; 2,50 mm²; orange

[www.wago.com/231-709/026-000](http://www.wago.com/231-709/026-000)



Item no.231-2709/026-000

2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; with integrated end plate; 2,50 mm²; orange

[www.wago.com/231-2709/026-000](http://www.wago.com/231-2709/026-000)



Item no.231-2709/037-000

2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; Lateral locking levers; 2,50 mm²; orange

[www.wago.com/231-2709/037-000](http://www.wago.com/231-2709/037-000)



Item no.2231-709/026-000

1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; 2,50 mm²; orange

[www.wago.com/2231-709/026-000](http://www.wago.com/2231-709/026-000)



Item no.2231-709/031-000

1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; clamping collar; 2,50 mm²; orange

[www.wago.com/2231-709/031-000](http://www.wago.com/2231-709/031-000)



Item no.2231-709/037-000

1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; Lateral locking levers; 2,50 mm²; orange

[www.wago.com/2231-709/037-000](http://www.wago.com/2231-709/037-000)



Item no.231-709/027-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; clamping collar; 2,50 mm²; orange

[www.wago.com/231-709/027-000](http://www.wago.com/231-709/027-000)



Item no.231-709/031-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; clamping collar; 2,50 mm²; orange

[www.wago.com/231-709/031-000](http://www.wago.com/231-709/031-000)

Item no.732-129/026-000

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1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; 2,50 mm²; orange [www.wago.com/732-129/026-000](http://www.wago.com/732-129/026-000)



**Item no.231-709/037-000**  
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.62 mm; 9-pole; Lateral locking levers; 2,50 mm²; orange [www.wago.com/231-709/037-000](http://www.wago.com/231-709/037-000)

## Optional accessories

### Coding

Intermediate plate



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

Coding



**Item no.: 231-130**  
Coding key; snap-on type; light gray [www.wago.com/231-130](http://www.wago.com/231-130)

## Downloads

### Documentation

#### Additional Information

Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.0 MB	

## CAD/CAE-Data

### CAE data

EPLAN Data Portal 231-739/001-000	URL	Download
EPLAN Data Portal 231-739/001-000	URL	Download
ZUKEN Portal 231-739/001-000	URL	Download

### PCB Design

Symbol and Footprint 231-739/001-000	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.		

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**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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**CAD data**

2D/3D Models 231-739/001-000	<a href="#">URL</a>	<a href="#">Download</a>
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**Environmental Product Compliance**

**Compliance Search**

Environmental Product Compliance 231-739/001-000 THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 7.62 mm; 9-pole; orange	<a href="#">URL</a>	<a href="#">Download</a>
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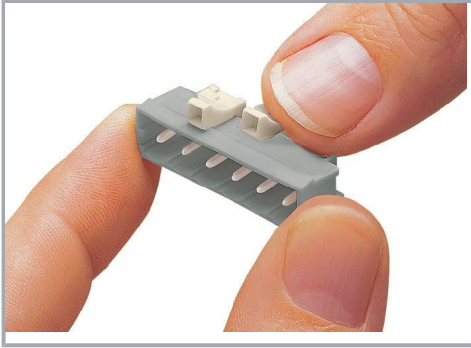
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## Installation Notes

### Coding



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

### Product family

**MCS MIDI Classic**

[Show all products from the family](#)

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