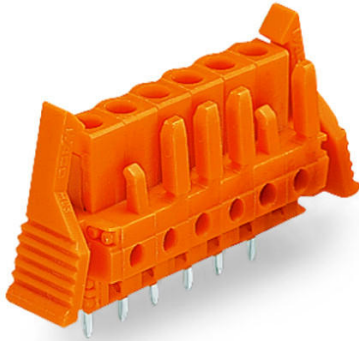


## Data sheet | Item number: 232-178/039-000

THT female header; 0.6 x 1.0 mm solder pin; straight; Locking lever; 2.5 mm<sup>2</sup>;  
Pin spacing 5.08 mm; 18-pole; orange



[www.wago.com/232-178/039-000](http://www.wago.com/232-178/039-000)

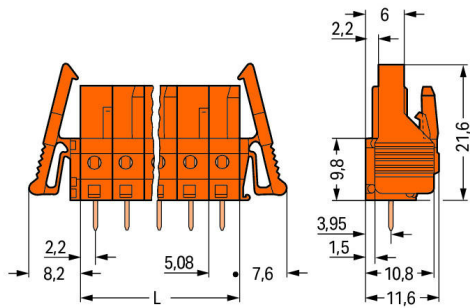
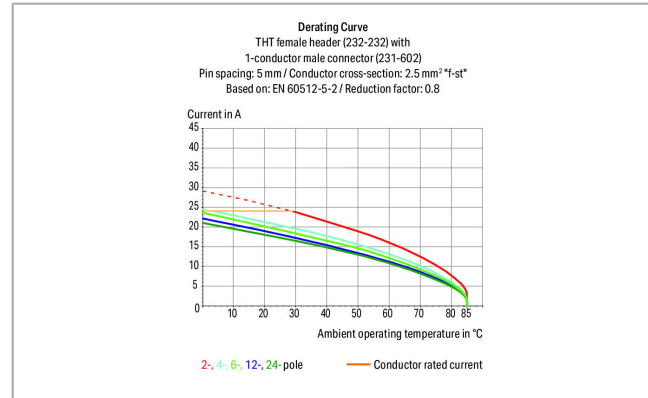


 Picture differs from the item.

RoHS  Compliant



Color: 



L = pole no. x pin spacing

2- to 3-pole female connectors – one latch only

### Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections

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

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Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.



- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

**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.

**Data****Electrical data****Ratings per IEC/EN**

Ratings per	IEC/EN 60664-1
Nominal 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) ≙ Overvoltage category III / Pollution degree 2

**Ratings per UL**

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

**Ratings per UL**

Rated voltage UL 1977	600 V
Rated current UL 1977	15 A

**Ratings per CSA**

Approvals per	CSA
Rated voltage CSA (Use Group B)	300 V

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



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

Pole No.	18
Total number of connection points	18
Total number of potentials	18
Number of connection types	1
Number of levels	1

### Physical data

Pin spacing	5.08 mm / 0.2 inch
Width	255.8 mm / 10.071 inch
Height	26.6 mm / 1.047 inch
Height from the surface	21.6 mm / 0.85 inch
Depth	11.6 mm / 0.457 inch
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 <sup>(+0.1)</sup> mm

### Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for PCB
Mismating protection	No
Mating direction to the PCB	90°
Locking of plug-in connection	locking lever

### PCB contact

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

### Material data

Color	orange
Material group	I

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

Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	tin-plated
Fire load	0.281 MJ
Weight	16.4 g

### Environmental requirements



Limit temperature range	-60 ... +85 °C
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### Commercial data



Packaging type	BOX
Country of origin	DE
GTIN	4050821378679
Customs tariff number	85366990990

### Approvals / Certificates

#### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG15869876- PDA
	<b>BV</b> Bureau Veritas S.A.	IEC 60998	11915/D0 BV

#### 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 sec. 18

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

## Counterpart



Item no.231-648

1-conductor male connector; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 18-pole; 2,50 mm<sup>2</sup>; orange

[www.wago.com/231-648](http://www.wago.com/231-648)

## Compatible products

check



Item no.: 231-661

Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm<sup>2</sup>; light gray

[www.wago.com/231-661](http://www.wago.com/231-661)

## Downloads

### Documentation

#### Additional Information

Technical explanations	3. 4. 2019	pdf 2.0 MB	Download
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## CAD/CAE-Data

### CAD data

2D/3D Models 232-178/039-000	URL	Download
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### PCB Design

Symbol and Footprint 232-178/039-000	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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#### CAE data

ZUKEN Portal 232-178/039-000	<a href="#">URL</a>	<a href="#">Download</a>
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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 232-178/039-000 THT female header; 0.6 x 1.0 mm solder pin; straight; Locking lever; 2.5 mm <sup>2</sup> ; Pin spacing 5.08 mm; 18-pole; orange	<a href="#">URL</a>	<a href="#">Download</a>
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## Installation Notes

### Product family

[<i>MCS</i> MIDI Classic](#)  
[Show all products from the family](#)

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

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We are always happy to take your call at +49 (571) 887-44222.