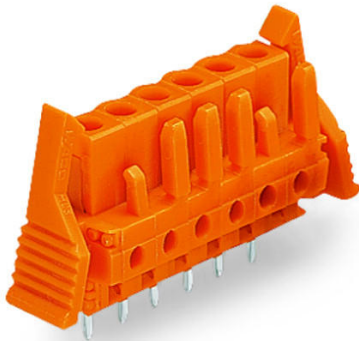


Data sheet | Item number: 232-180/039-000

THT female header; 0.6 x 1.0 mm solder pin; straight; Locking lever; 2.5 mm²;
Pin spacing 5.08 mm; 20-pole; orange



www.wago.com/232-180/039-000

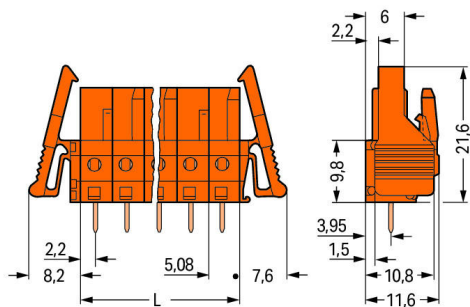
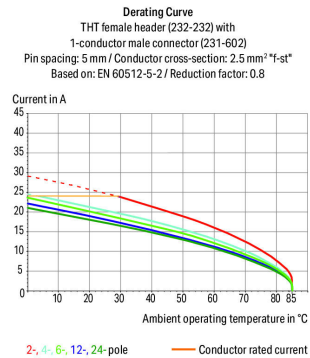


 Picture differs from the item.

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!

WAGO Kontakttechnik GmbH & Co. KG
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- 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!

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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.	20
Total number of connection points	20
Total number of potentials	20
Number of connection types	1
Number of levels	1

Physical data

Pin spacing	5.08 mm / 0.2 inch
Width	117.4 mm / 4.622 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 ^(+0.1) 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
Weight	18.2 g

Environmental requirements




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


Packaging type	BOX
Country of origin	DE
GTIN	4055143579513
Customs tariff number	85366990990

Approvals / Certificates

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG15869876- PDA
	BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE 000016Z

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Germany GmbH	UL 1977	E45171
	UR	UL 1059	E45172

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



Counterpart



Item no.231-650

1-conductor male connector; 2.5 mm²; Pin spacing 5.08 mm; 20-pole; 2,50 mm²; orange

www.wago.com/231-650

Compatible products

check



Item no.: 231-661

Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm²; light gray

www.wago.com/231-661

Downloads

Documentation

Additional Information

Technical explanations

3. 4. 2019

pdf
2.0 MB

Download

CAD/CAE-Data

CAD data

2D/3D Models 232-180/039-000

URL

Download

PCB Design

Symbol and Footprint 232-180/039-000

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

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- 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

CAE data

ZUKEN Portal 232-180/039-000	URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 232-180/039-000 THT female header; 0.6 x 1.0 mm solder pin; straight; Locking lever; 2.5 mm ² ; Pin spacing 5.08 mm; 20-pole; orange	URL	Download
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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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