

## Fișă tehnică | Număr articol: 232-180/039-000

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

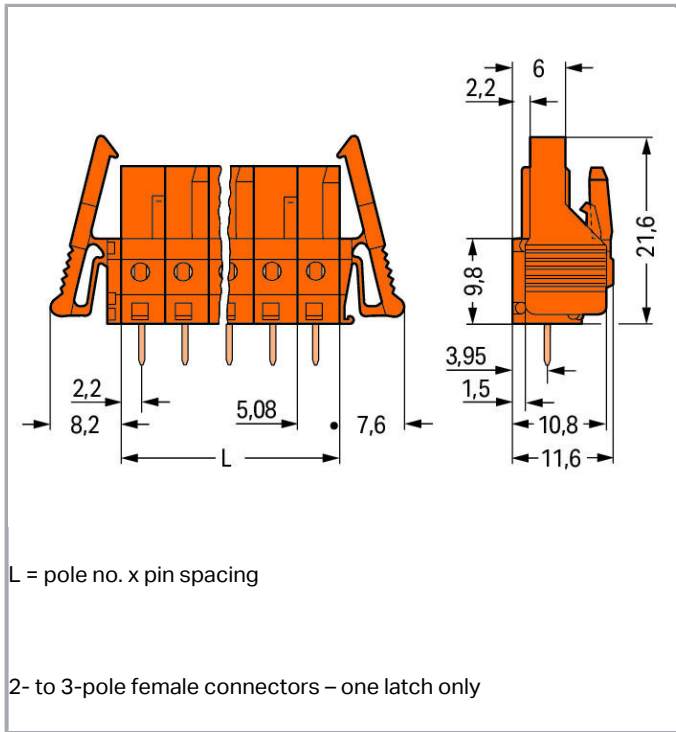
[www.wago.com/232-180/039-000](http://www.wago.com/232-180/039-000)



Supus modificărilor.

WAGO Kontakttechnik GmbH & Co. KG  
/Representative Office Romania  
Sos. Pipera-Tunari nr. 1/1  
building 1, 2nd floor | 077190 Voluntari, Ilfov  
Tel.: +40-(0)31 421 85 68 | Email: info-RO@wago.com

Aveți întrebări despre produsele noastre?  
Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.



## Descriere articol

- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

### Safety information 1:

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall 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.

## Date

### Electrical data

### Ratings per IEC/EN 60664-1

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV

Supus modificărilor.

WAGO Kontakttechnik GmbH & Co. KG  
 /Representative Office Romania  
 Sos. Pipera-Tunari nr. 1/1  
 building 1, 2nd floor | 077190 Voluntari, Ilfov  
 Tel.: +40-(0)31 421 85 68 | Email: info-RO@wago.com

Aveți întrebări despre produsele noastre?  
 Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.



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

### 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
Approvals per	UL 1059

### Approvals per UL 1977

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

### Approvals per CSA

Rated voltage CSA (Use Group B)	300 V
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

### Geometrical 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

Supus modificărilor.

WAGO Kontakttechnik GmbH & Co. KG  
 /Representative Office Romania  
 Sos. Pipera-Tunari nr. 1/1  
 building 1, 2nd floor | 077190 Voluntari, Ilfov  
 Tel.: +40-(0)31 421 85 68 | Email: info-RO@wago.com

Aveți întrebări despre produsele noastre?  
 Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.



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 connection**

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for PCBs
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
Insulation material	Polyamide 66 (PA 66)
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
-------------------------	----------------

**Commercial data**

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



**Aprobări / certificate**

Supus modificărilor.



WAGO Kontakttechnik GmbH & Co. KG  
 /Representative Office Romania  
 Sos. Pipera-Tunari nr. 1/1  
 building 1, 2nd floor | 077190 Voluntari, Ilfov  
 Tel.: +40-(0)31 421 85 68 | Email: info-RO@wago.com

Aveți întrebări despre produsele noastre?  
 Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.

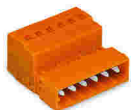
## Ship Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	<b>ABS</b> American Bureau of Shipping	-	19- HG15869876- PDA
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE 000016Z

## UL-Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	<b>UL</b> UL International Germany GmbH	UL 1977	E45171
	<b>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172 sec. 18

## Counterpart



Nr. articol 231-650

1-conductor male connector; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange[www.wago.com/231-650](http://www.wago.com/231-650)

## Produse compatibile

check



Nr. articol: 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)

## Descărcări

## Documentation

## Additional Information

Technical explanations

Apr 3, 2019

pdf

Descărcare

Supus modificărilor.

WAGO Kontakttechnik GmbH & Co. KG  
/Representative Office Romania  
Sos. Pipera-Tunari nr. 1/1  
building 1, 2nd floor | 077190 Voluntari, Ilfov  
Tel.: +40-(0)31 421 85 68 | Email: info-RO@wago.com

Aveți întrebări despre produsele noastre?  
Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.

## CAD/CAE-Data

### CAD data

2D/3D Models 232-180/039-000	<a href="#">URL</a>	<a href="#">Descărcare</a>
------------------------------	---------------------	----------------------------

### PCB Design

Symbol and Footprint 232-180/039-000	<a href="#">URL</a>	<a href="#">Descărcare</a>
--------------------------------------	---------------------	----------------------------

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

Supus modificărilor.

WAGO Kontakttechnik GmbH & Co. KG  
/Representative Office Romania  
Sos. Pipera-Tunari nr. 1/1  
building 1, 2nd floor | 077190 Voluntari, Ilfov  
Tel.: +40-(0)31 421 85 68 | Email: info-RO@wago.com

Aveți întrebări despre produsele noastre?  
Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.



## Installation Notes

## Familie de produse

*<i>MCS</i> MIDI Classic*

Afișare globală produse din familie.

Supus modificărilor.

---

WAGO Kontakttechnik GmbH & Co. KG  
/Representative Office Romania  
Sos. Pipera-Tunari nr. 1/1  
building 1, 2nd floor | 077190 Voluntari, Ilfov  
Tel.: +40-(0)31 421 85 68 | Email: info-RO@wago.com

Aveți întrebări despre produsele noastre?  
Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.