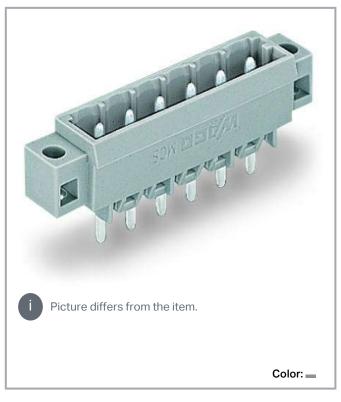
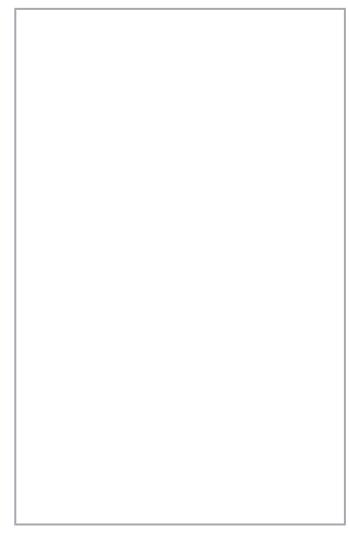
Male header; 2-pole; THT; 1.2 x 1.2 mm solder pin; straight; mounting flange;



pin spacing 5 mm; gray www.wago.com/231-162\_040-000





 $\label{thm:continuity} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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Dimensions in mm			
L = (pole no. – 1) x pin sp	pacing + 8.2 mm	1	
			_
ltom docovintion			

# Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers

# Data Notes

Safety information 1

The MCS - MULTI CONNECTION SYSTEM includes connectors

 $\label{thm:continuity} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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	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.
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**

# **IEC Approvals**

Ratings per	IEC/EN 60664-1
Rated voltage (III / 3)	250 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	16 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

# **UL Approvals**

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

# **CSA Approvals**

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

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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	
Total number of potentials	2
Number of connection types	1
Number of levels	1
Connection 1	
Number of poles	2
Physical data	
Pin spacing	5 mm / 0.197 inch
Width	22.8 mm / 0.898 inch
Height	17 mm / 0.669 inch
Height from the surface	12 mm / 0.472 inch
Depth	8.4 mm / 0.331 inch
Solder pin length	5 mm
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 <sup>(+0.1)</sup> mm
Mechanical data	
Mounting type	Mounting flange
Mounting type	Feed-through mounting Panel mounting
Plug-in connection	
Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
Mismating protection	No
Mating direction to the PCB	90°
Locking of plug-in connection	Without
PCB contact	
PCB Contact	тнт
Subject to changes. Please also observe the further product d	ocumentation!
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Solder pin arrangement	over the entire male connector (in-line)
Number of solder pins per potential	1

#### Material data

Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	tin-plated
Fire load	0.025 MJ
Weight	1.2 g

# **Environmental requirements**

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

#### Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	200 Stück
Packaging type	box
Country of origin	PL
GTIN	4044918928342
Customs tariff number	8536694040

# Approvals / Certificates

#### **Country specific Approvals**

Logo	Approval	Additional Approval Text	Certificate name
	CB DEKRA Certification B.V.	IEC 61984	NL-39756
SP	CSA DEKRA Certification B.V.	C22.2	LR 18677- 25

#### Ship Approvals

Certificate Logo Approval Additional Approval Text name

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**ABS**American Bureau of Shipping

19-HG1869876-PDA



BV IEC 60998 11915/D0
Bureau Veritas S.A. BV

DNV GL - TAE000016Z

Det Norske Veritas, Germanischer Lloyd

#### **UL-Approvals**

Logo Approval Additional Approval Text name

UL UL 1977 E45171
Underwriters Laboratories Inc.



**UL**Underwriters Laboratories Inc.

UL 1059 E45172

#### Counterpart



Item no.231-102/026-000

Female plug; 2-pole; 12 AWG max; pin spacing 5 mm; 1 conductor per pole; gray

www.wago.com/231-102/026-000

#### Optional accessories

## Coding

Intermediate plate



Item no.: 231-500

Spacer; for formation of groups; light gray

www.wago.com/231-500

Coding



Item no.: 231-129

Coding key; snap-on type; light gray

www.wago.com/231-129

#### Mounting

Mounting accessories



Item no.: 209-147 Self-tapping screw

www.wago.com/209-147

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Item no.: 231-194

Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø

www.wago.com/231-194



Item no.: 231-195

Screw with nut; M2x12; for fixing element

www.wago.com/231-195



Item no.: 231-295 Screw with nut

www.wago.com/231-295

# Downloads Documentation

# Additional Information

Technical explanations

2019 Apr 3

pdf 2.0 MB Download

#### **CAD files**

#### **CAD** data

2D/3D Models 231-162/040-000

URL

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CAE data

EPLAN Data Portal 231-162/040-000

URL

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ZUKEN Portal 231-162/040-000

URL

Download

EPLAN Data Portal 231-162/040-000

URL

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#### **PCB** Design

Symbol and Footprint 231-162/040-000

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
- Eagle Libraries
- KiCad

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

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- 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

#### **Environmental Product Compliance**

#### Compliance Search

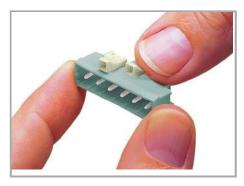
Environmental Product Compliance 231-162/040-000

THT male header; 1.2 x 1.2 mm solder pin; straight; clamping collar; Pin spacing 5 mm;

2-pole; gray

URL Download

# **Installation Notes**



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

 $\label{thm:continuity} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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**Product family** 

MCS MIDI Classic Show all products from the family

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