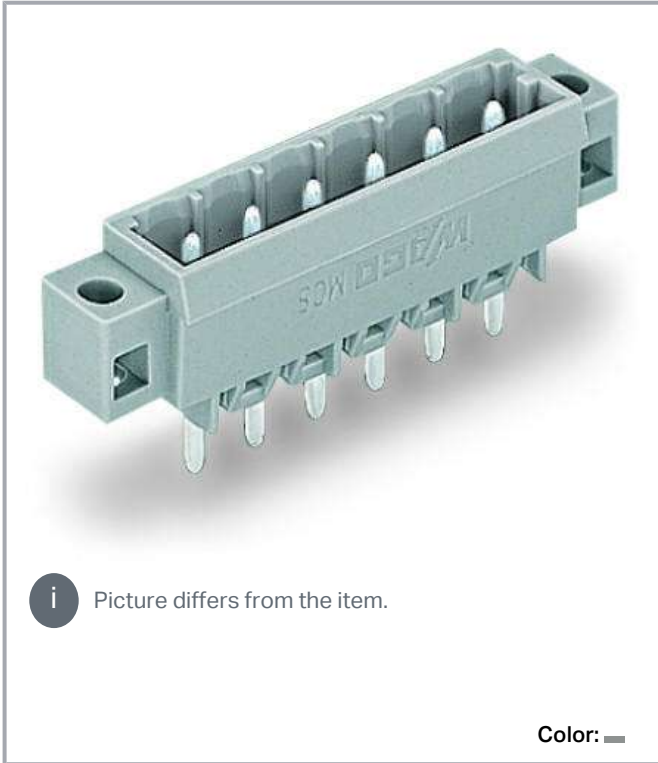


Data sheet | Item number: 231-165/040-000

Male header; 5-pole; THT; 1.2 x 1.2 mm solder pin; straight; mounting flange; pin spacing 5 mm; gray

www.wago.com/231-165_040-000



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

WAGO Corporation
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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

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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) \triangleq 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	5
Number of connection types	1
Number of levels	1

Connection 1

Number of poles	5
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Physical data

Pin spacing	5 mm / 0.197 inch
Width	37.8 mm / 1.488 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 ^(+0.1) 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	THT
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Subject to changes. Please also observe the further product documentation!



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 _{Cu})
Contact plating	tin-plated
Fire load	0.041 MJ
Weight	2.3 g

Environmental requirements


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

Product Group	3 (Multi Conn. System)
PU (SPU)	100 Stück
Packaging type	box
Country of origin	DE
GTIN	4045454644802
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
	CSA DEKRA Certification B.V.	C22.2	LR 18677-25



Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name

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

	ABS American Bureau of Shipping	-	19- HG1869876- PDA
	BV Bureau Veritas S.A.	IEC 60998	11915/DO BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1977	E45171
	UL Underwriters Laboratories Inc.	UL 1059	E45172

Counterpart



Item no.231-105/026-000
Female plug; 5-pole; 12 AWG max; pin spacing 5 mm; 1 conductor per pole; gray

www.wago.com/231-105/026-000

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

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

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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
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CAD files

CAD data

2D/3D Models 231-165/040-000	URL	Download
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PCB Design

Symbol and Footprint 231-165/040-000	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
- 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

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

- 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

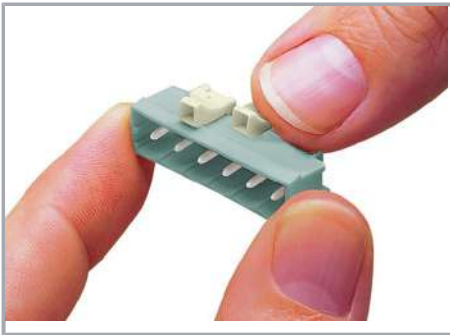
ZUKEN Portal 231-165/040-000	URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 231-165/040-000 THT male header; 1.2 x 1.2 mm solder pin; straight; clamping collar; Pin spacing 5 mm; 5-pole; gray	URL	Download
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Installation Notes



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

Product family

MCS MIDI Classic

[Show all products from the family](#)

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

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