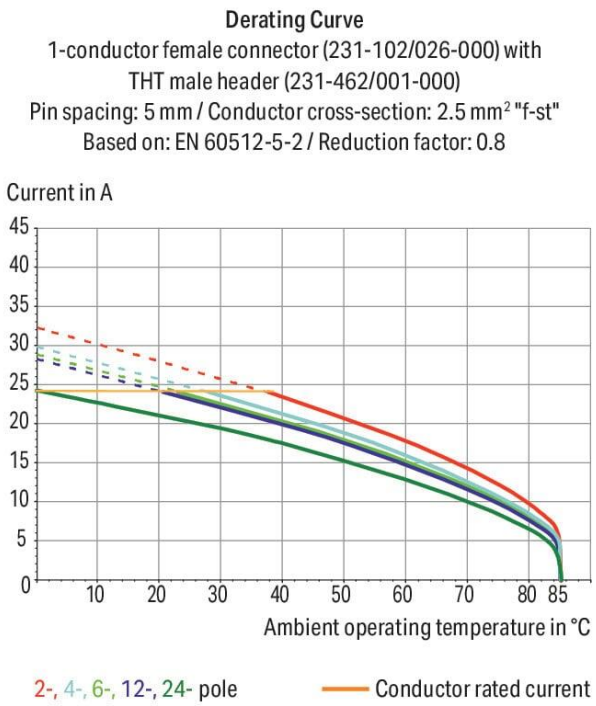
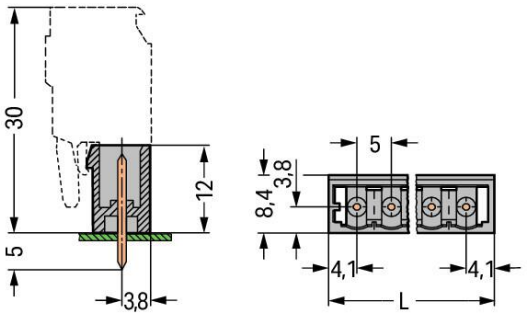
Data sheet | Item number: 231-147/001-000

THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 17-pole; gray

www.wago.com/231-147/001-000

Color:





Dimensions in mm

L = (pole no. – 1) x pin spacing + 8.2 mm

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Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

Data
Notes

Safety information	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.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

Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	320 V
Rated impulse voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated impulse 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)	10 A
Rated voltage UL (Use Group D)	300 V

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Rated current UL (Use Group D)	10 A

Ratings per UL 1977

Rated voltage (UL 1977)	600 V
Rated current UL 1977	10 A

Ratings per CSA

Approvals per	CSA
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

Connection data

Total number of potentials	17
Number of connection types	1
Number of levels	1

Connection 1

Pole number	17

Physical data

Pin spacing	5 mm / 0.197 inches
Width	88.2 mm / 3.472 inches
Height	17 mm / 0.669 inches
Height from the surface	12 mm / 0.472 inches
Depth	8.4 mm / 0.331 inches
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	$1.4\ ^{(+0.1)}$ mm

Mechanical Data

Variable coding	Yes
Anti-rotation protection	Yes

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Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
Mismating protection	No
Plugging without loss of pin spacing	No
Mating direction to the PCB	90 °
Locking of plug-in connection	none

PCB contact

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

Material data

Note (material data)	Information on material specifications can be found here
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin
Fire load	0.189 MJ
Weight	5.4 g

Environmental requirements

Limit temperature range	-60 … +100 °C
Processing temperature	-35 … +60 °C

Commercial data

Product Group	3 (Multi Conn. System)
eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 8.0	EC002637
ETIM 7.0	EC002637

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ECCN	NO DATA
PU (SPU)	50 pcs
Packaging type	box
Country of origin	PL
GTIN	4044918863957
Customs tariff number	85366930000

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CB DEKRA Certification B.V.	IEC 61984	NL-39756/A1
	CCC CQC	GB/T 13140.1	CQC03003003013
	CSA DEKRA Certification B.V.	C22.2	LR 18677-25
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-121453
	UL Underwriters Laboratories Inc.	UL 1059	E45172
	UR Underwriters Laboratories Inc.	UL 1977	E45171

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	Railway WAGO GmbH & Co. KG	-	Railway Ready

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Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19-HG1869876-PDA
	BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV
	DNV DNV GL SE	-	TAE000016Z

Counterpart

	Item no.231-117/026-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; 2,50 mm²; gray	www.wago.com/231-117/026-000
	Item no.2231-117/026-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; 2,50 mm²; gray	www.wago.com/2231-117/026-000
	Item no.2231-117/031-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; clamping collar; 2,50 mm²; gray	www.wago.com/2231-117/031-000
	Item no.2231-117/037-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; Lateral locking levers; 2,50 mm²; gray	www.wago.com/2231-117/037-000
	Item no.231-117/031-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; clamping collar; 2,50 mm²; gray	www.wago.com/231-117/031-000
	Item no.2231-117/102-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; with integrated end plate; 2,50 mm²; gray	www.wago.com/2231-117/102-000

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Item no.231-117/027-000
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; clamping collar; 2,50 mm²; gray
www.wago.com/231-117/027-000

Item no.231-117/102-000
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; with integrated end plate; 2,50 mm²; gray
www.wago.com/231-117/102-000

Item no.231-117/037-000
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; Lateral locking levers; 2,50 mm²; gray
www.wago.com/231-117/037-000

Item no.232-117/026-000
1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; 2,50 mm²; gray
www.wago.com/232-117/026-000

Item no.232-217/026-000
1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 17-pole; 2,50 mm²; gray
www.wago.com/232-217/026-000

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

Downloads

Documentation

Additional Information

Technical Section Technical explanations	2019 年4月3日	pdf 2.1 MB	Download

CAD/CAE-Data

CAD data

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2D/3D Models 231-147/001-000	URL	Download

CAE data

EPLAN Data Portal 231-147/001-000	URL	Download
EPLAN Data Portal 231-147/001-000	URL	Download
ZUKEN Portal 231-147/001-000	URL	Download

PCB Design

Symbol and Footprint via Ultra Librarian 231-147/001-000	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
- Altair
- Altium 6 to current version
- Autodesk Fusion 360
- 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

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- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000
- Zuken eCADSTAR 2020 and 2021Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

Symbol and Footprint via SamacSys 231-147/001-000	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:

- 3D (stp)
- Altium
- CADSTAR
- Capture
- CircuitStudio
- CR-5000
- CR-8000
- DEHDL
- DesignSpark PCB
- DesignSpark PCB PRO
- DipTrace
- EAGLE
- Easy-PC
- EasyEDA
- eCADSTAR
- KiCad
- OrCAD_Allegro16
- PADS
- Proteus
- Pulsonix
- Quadcept
- SOLIDWORKS PCB
- TARGET 3001!
- xDX Designer
- Xpedition

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PCB Component Libraries (EDA), PCB CAD Library SamacSys Electronic Component Search Engine

Asset Administration Shell

Asset Administration Shell 231-147/001-000	URL	Download

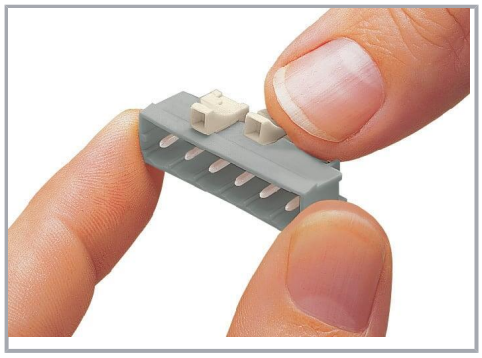
Environmental Product Compliance

Compliance Search

Environmental Product Compliance 231-147/001-000 THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 17-pole; gray	URL	Download

Installation Notes

Coding



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

Product family

MCS MIDI Classic
Show all products from the family

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