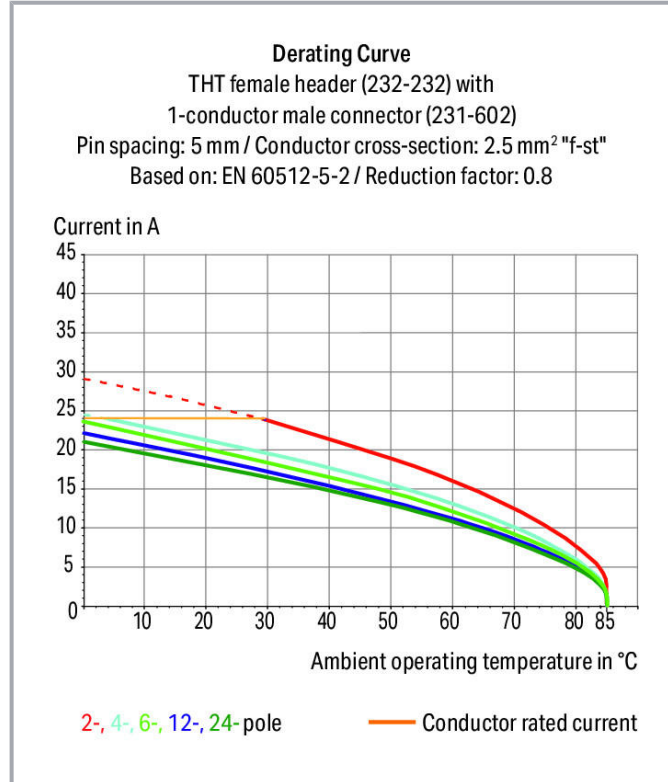
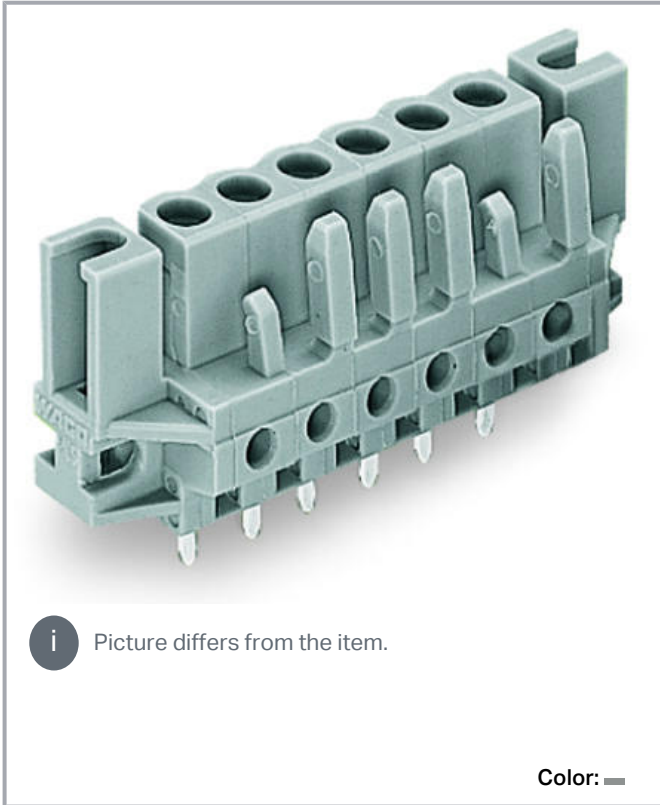


Data sheet | Item number: 232-143/047-000

THT female header; straight; Pin spacing 5 mm; 13-pole; Spacer flange; 0.6 x 1.0 mm solder pin; gray



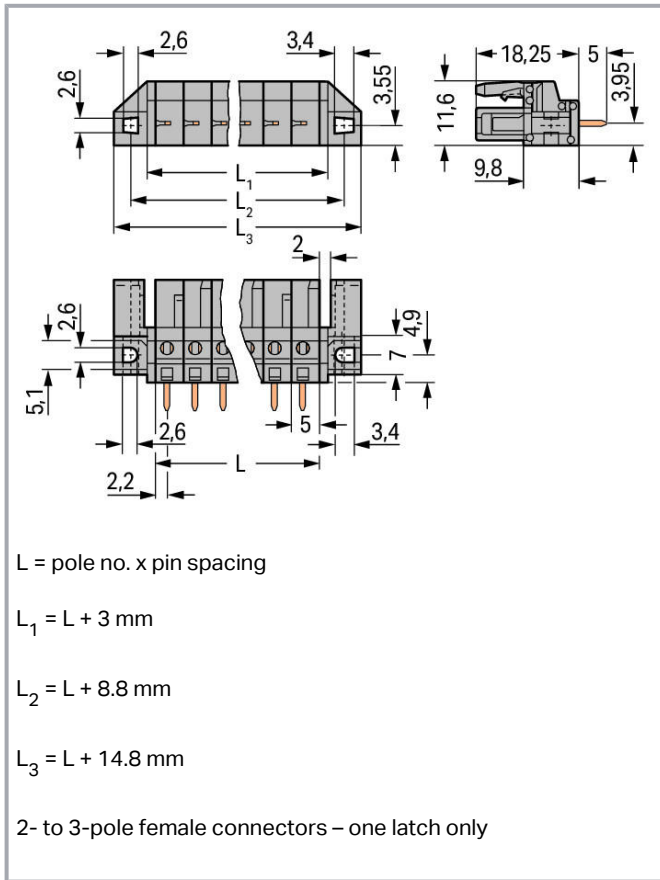
www.wago.com/232-143_047-000



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

WAGO Corporation
Germantown, WI 53022
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Item description

- 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 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

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



IEC Approvals

Ratings per	IEC/EN 60664-1
Rated 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) $\hat{=}$ 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
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.	13
Total number of potentials	13
Number of connection types	1
Number of levels	1

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Physical data

Pin spacing	5 mm / 0.197 inch
Width	79.8 mm / 3.142 inch
Height	23.25 mm / 0.915 inch
Height from the surface	18.25 mm / 0.719 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

Mechanical data

Mounting type	Mounting flange
Mounting type	Flush feed-through mounting Panel mounting

Plug-in connection

Contact type (pluggable connector)	Female header
Connector (connection type)	for PCB
Mismating protection	No
Mating direction to the PCB	90°

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	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	tin-plated
Fire load	0.237 MJ
Weight	12.9 g

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Environmental requirements


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

Commercial data



Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	DE
GTIN	4044918623599
Customs tariff number	8536694040

Approvals / Certificates


Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CSA DEKRA Certification B.V.	C22.2	1466354

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

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	20190731- E45172

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

Counterpart




Item no.231-613

Male connector; 13-pole; Pin spacing 5 mm; gray

www.wago.com/231-613

Optional accessories

Testing accessories

	Item no.: 231-661 Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm ² ; light gray	www.wago.com/231-661
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Downloads

Documentation

Additional Information

Technical explanations	Apr 3, 2019	pdf 2.0 MB	Download
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CAD files

CAD data

2D/3D Models 232-143/047-000	URL	Download
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CAE data

EPLAN Data Portal 232-143/047-000	URL	Download
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ZUKEN Portal 232-143/047-000	URL	Download
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EPLAN Data Portal 232-143/047-000	URL	Download
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PCB Design

Symbol and Footprint 232-143/047-000	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

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- 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

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 232-143/047-000	URL	Download
THT female header; straight; Pin spacing 5 mm; 13-pole; Spacer flange; 0.6 x 1.0 mm solder pin; gray		

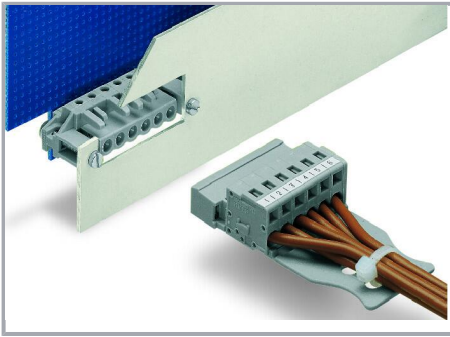
Installation Notes

Application

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The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.

Product family

[*MCS* MIDI Classic](#)

[Show all products from the family](#)

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