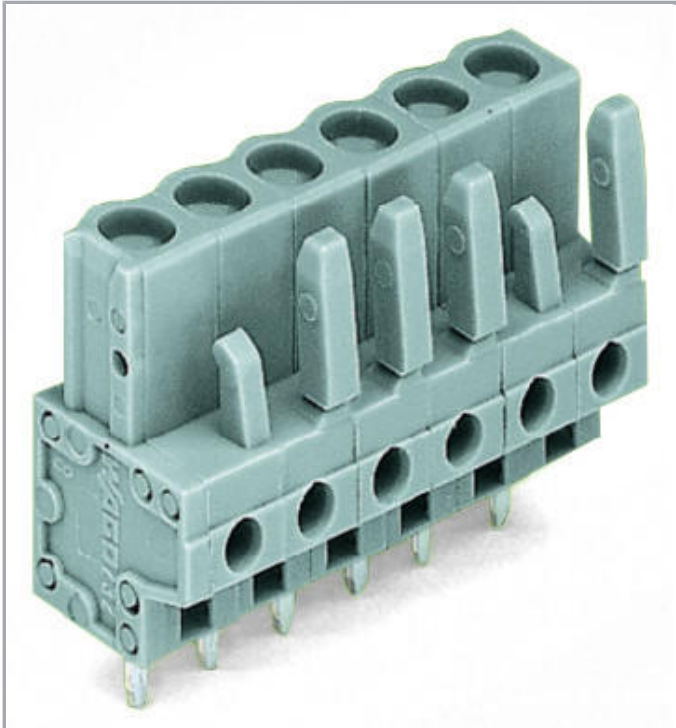


Data sheet | Item number: 232-150

THT female header; 0.6 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 20-pole; gray

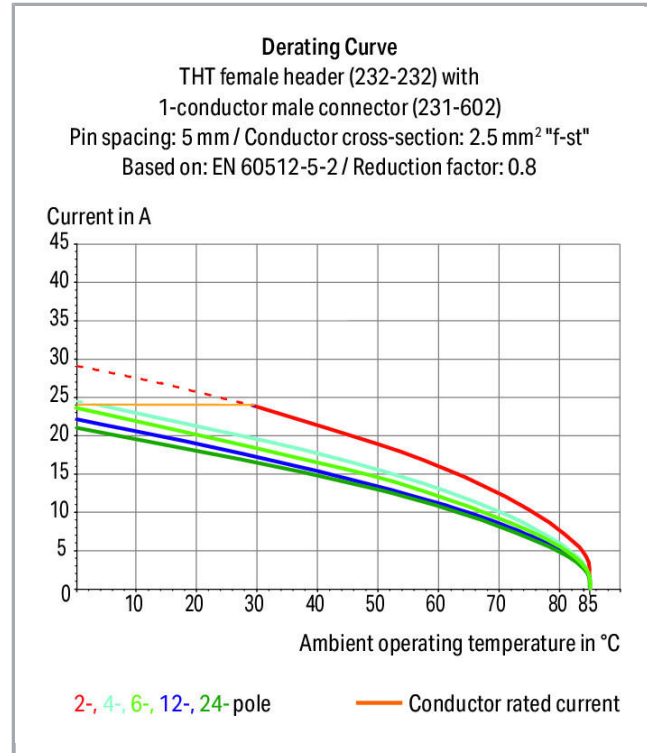
www.wago.com/232-150



RoHS Compliant

[BOMcheck.net](https://www.bomcheck.net)

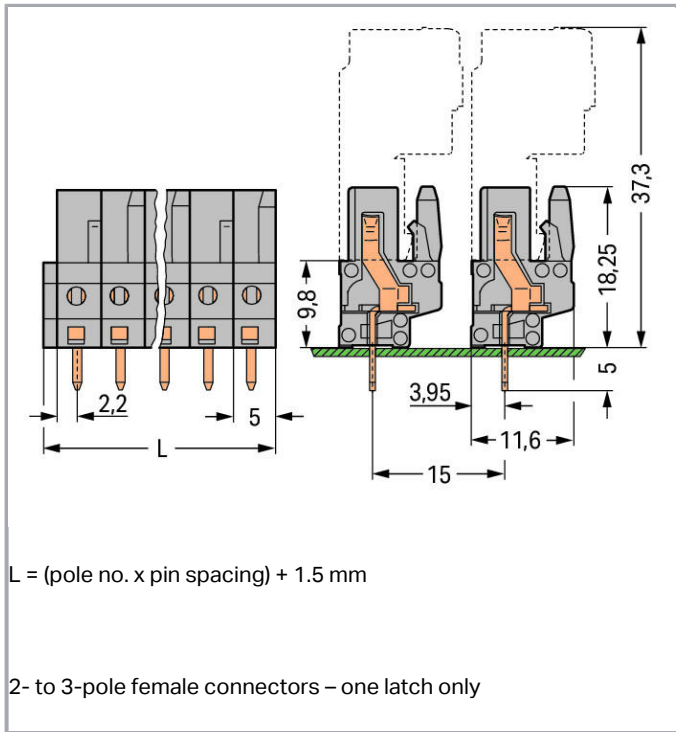
Color:



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

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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 *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.

Data

Electrical data

Ratings per IEC/EN 60664-1

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

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Rated voltage (III / 2)	320 V
Rated impulse voltage (III / 2)	4 kV
Rated voltage (II / 2)	630 V
Rated impulse voltage (II / 2)	4 kV
Rated current	12 A
Legend (ratings)	(III / 2) $\hat{=}$ 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 per UL 1977 (factory wiring only)	600 V
Rated current per UL 1977 (factory wiring only)	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

No. of poles	20
Total number of potentials	20
Number of connection types	1
Number of levels	1

Geometrical Data

Pin spacing	5 mm / 0.197 inch
Width	101.5 mm / 3.996 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

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Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter (tolerance)	1.3 ^(+0.1) mm

Plug connection

Contact type (pluggable connector)	Female connector/socket
Connector connection type	for PCBs
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
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	tin-plated
Fire load	0.323 MJ
Weight	18.5 g

Environmental Requirements

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

Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	DE
GTIN	4044918578646
Customs Tariff No.	85366990990



Approvals / Certificates

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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	1466354
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	2190761.01

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG15869876- PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE 000016Z
	LR Lloyds Register	IEC 61984	96/20035 (E5)

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	20190731- E45172
	UR UL International Germany GmbH	UL 1977	E45171

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

Counterpart



Item no.231-620

1-conductor male connector; 2.5 mm²; Pin spacing 5 mm; 20-pole; 2,50 mm²; gray

www.wago.com/231-620



Item no.231-620/019-000/035-000

1-conductor male connector; clamping collar; Strain relief plate; 2.5 mm²; Pin spacing 5 mm; 20-pole; 2,50 mm²; gray

www.wago.com/231-620/019-000/035-000



Item no.231-620/019-000

1-conductor male connector; clamping collar; 2.5 mm²; Pin spacing 5 mm; 20-pole; 2,50 mm²; gray

www.wago.com/231-620/019-000

Compatible products

Test Accessories

Item no.: 231-661

Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm²; light gray

www.wago.com/231-661

Downloads

Documentation

Additional Information

Technical explanations

Apr 3, 2019

pdf
3.6 MB

Download

CAD/CAE-Data

CAD data

2D/3D Models 232-150

URL

Download

CAE data

EPLAN Data Portal 232-150

URL

Download

PCB Design

Symbol and Footprint 232-150

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:

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- 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

Installation Notes

Product family

<i>MCS</i> MIDI Classic

[Learn more about the product family.](#)

[Show all products from the family](#)

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