

Data sheet | Item number: 232-148

THT female header; 0.6 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 18-pole



232-148

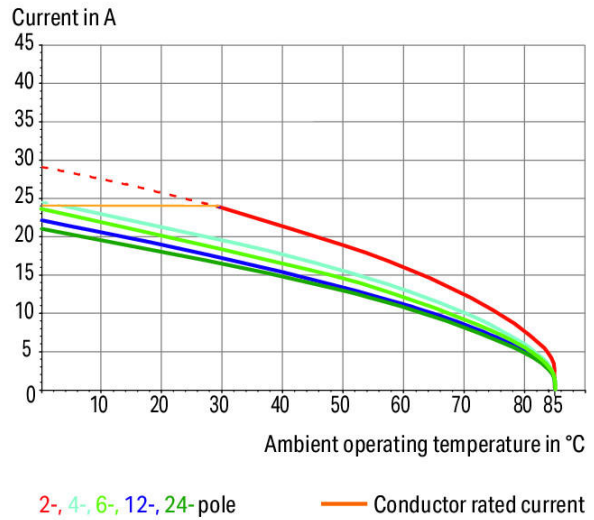


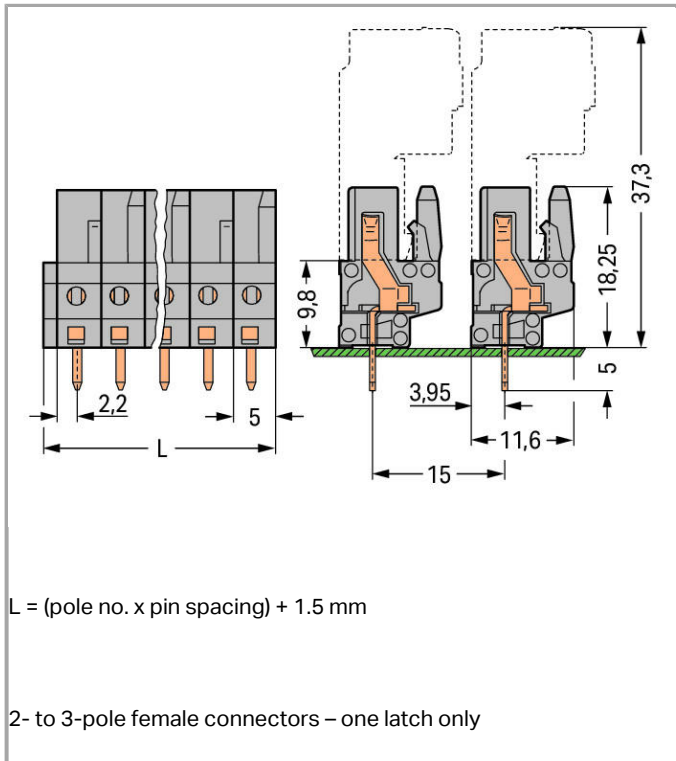
RoHS  Compliant

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

Color:

**Derating Curve**  
THT female header (232-232) with  
1-conductor male connector (231-602)  
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8





### 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

Rated 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
Rated voltage (II / 2)	630 V

Rated impulse voltage (II / 2)	4 kV
Rated current	12 A

### 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 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	18
Total number of potentials	18
Number of connection types	1
Number of levels	1

### Geometrical Data

Pin spacing	5 mm / 0.197 inch
Width	91.5 mm / 3.602 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 (tolerance)	1.3 <sup>(- ... +0.1)</sup> mm

### Plug connection

Contact type (pluggable connector)	Female connector/socket
Connector connection type	for PCBs
Mismating protection	No

Mating direction to the PCB	90°
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### 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	0.291 MJ
Weight	16.642 g

### Environmental Requirements



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

Product Group	3 (Multi Conn. System)
Country of origin	DE
GTIN	4044918578622
Customs Tariff No.	85366990990



### 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	1466354
	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
	<b>ABS</b> American Bureau of Shipping	-	14- HG1241537- PDA
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE 000016Z

## UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UR</b> UL International Germany GmbH	UL 1977	E45171
	<b>UR</b> UL International Germany GmbH	UL 1977	E45171

## Compatible products

## check

	<b>Item no.: 231-661</b> Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing	231-661
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## Downloads

## CAD/CAE - Smart Data

## CAD data

3D Download 232-148	URL	Download
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## PCB libraries

TARGET Library for WAGO Pluggable PCB Connectors (Multi-Connection System) Compatible with TARGET PCB Design Software Version 17.x	1.1.0 Oct 6, 2014	zip 7.4 MB	Download
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DesignSpark Library for WAGO Pluggable PCB Connectors (MULTI CONNECTION SYSTEM) Compatible with DesignSpark PCB Version 4.x or higher	2.1 Oct 6, 2014	zip 6.1 MB	Download
EAGLE Library for WAGO Pluggable PCB Connectors (MULTI CONNECTION SYSTEM) Compatible with EAGLE PCB Design Software Version 6.x or higher	2.1 Oct 6, 2014	zip 6.2 MB	Download

Subject to changes.