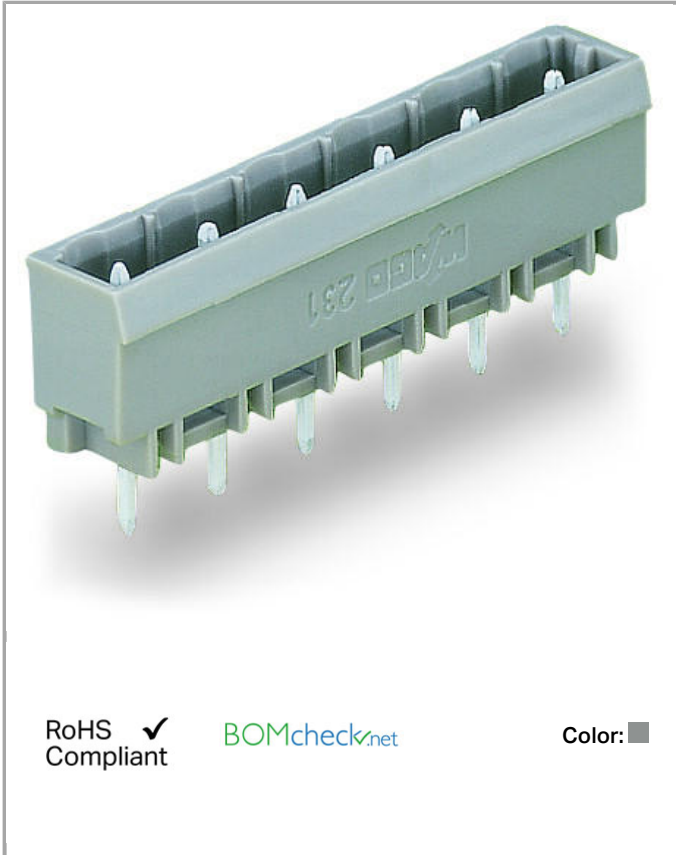


# Data sheet | Item number: 231-239/001-000

THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 7.5 mm; 9-pole



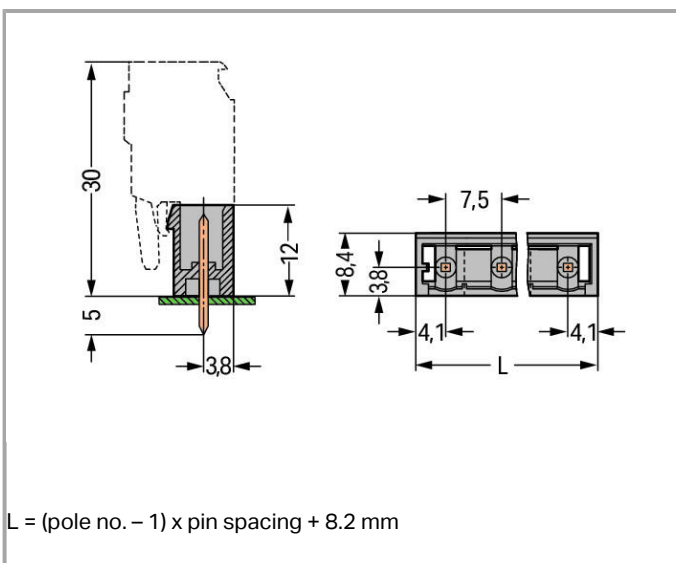
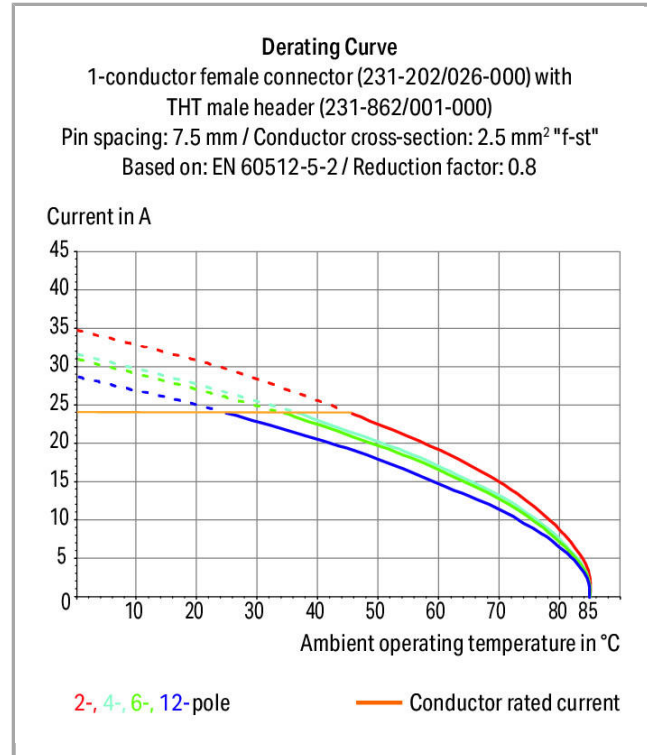
231-239/001-000



RoHS  Compliant

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

Color:



Item description



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 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)	500 V
Rated impulse voltage (III / 3)	6 kV
Rated voltage (III / 2)	630 V
Rated impulse voltage (III / 2)	6 kV
Rated voltage (II / 2)	1000 V
Rated impulse voltage (II / 2)	6 kV
Rated current	12 A

**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
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)	10 A

**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**

No. of poles	9
Total number of potentials	9

Number of connection types	1
Number of levels	1

### Geometrical Data

Pin spacing	7.5 mm / 0.295 inch
Width	68.2 mm / 2.685 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 x 1 mm
Drilled hole diameter (tolerance)	1.4 <sup>(-...+0.1)</sup> mm

### Plug connection

Contact type (pluggable connector)	Male connector/plug
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 male 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	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	tin-plated
Fire load	0.075 MJ
Weight	3.642 g

### Environmental Requirements

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

Product Group	3 (Multi Conn. System)
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Country of origin	PL
GTIN	4044918864848
Customs Tariff No.	85366990990

## Approvals / Certificates



### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>CB</b> DEKRA Certification B.V.	IEC 61984	NL-39756
	<b>CSA</b> DEKRA Certification B.V.	C22.2	1466354
	<b>CSA</b> DEKRA Certification B.V.	C22.2	1466354
	<b>KEMA/KEUR</b> 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	-	TAE000016Z

### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UR</b> Underwriters Laboratories Inc.	UL 1977	E45171
	<b>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172

## Compatible products

### Marking accessories

	<b>Item no.: 210-833</b> Marking strips; on reel; 6 mm wide; plain; Self-adhesive	210-833
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	<b>Item no.: 210-834</b> Marking strips; on reel; 5 mm wide; plain; Self-adhesive	210-834
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### Coding

	<b>Item no.: 231-130</b> Coding key; snap-on type	231-130
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	<b>Item no.: 231-500</b> Spacer; for formation of groups	231-500
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## Downloads

### CAD/CAE - Smart Data

#### PCB libraries

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
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
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

#### CAD data

3D Download 231-239/001-000	URL	Download
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Subject to changes.