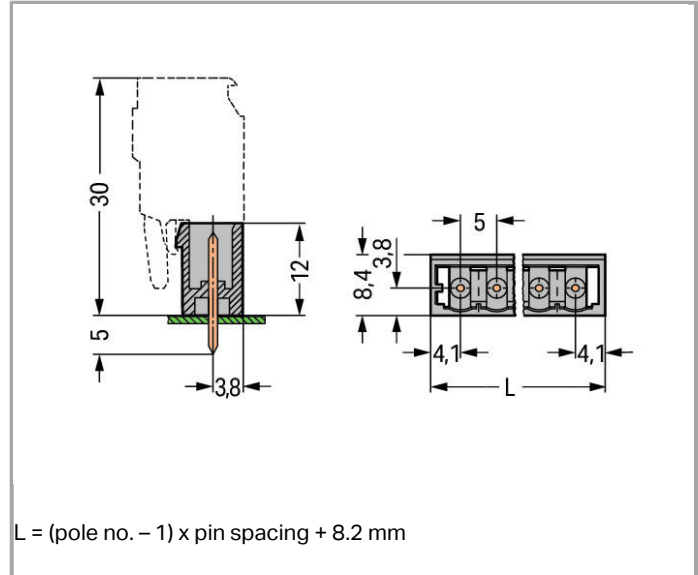
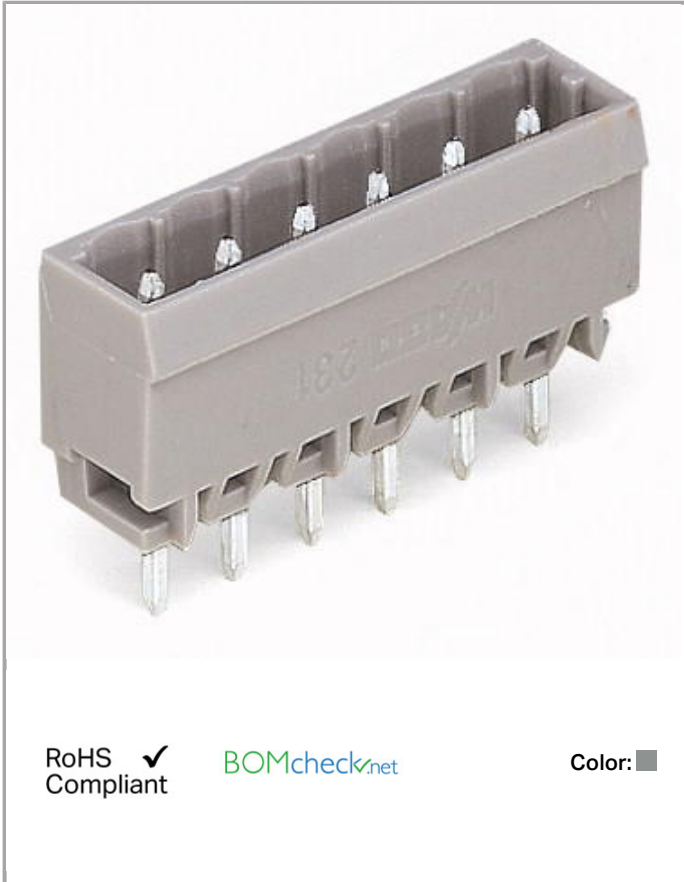


## Data sheet | Item number: 231-149/001-000

THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 19-pole



[www.wago.com/231-149/001-000](http://www.wago.com/231-149/001-000)



RoHS  Compliant

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

Other variants can be requested via the WAGO sales department or, if necessary, configured at <https://configurator.wago.com/>: 3.8 mm pin projection for male headers with straight solder pins, Gold-plated or partially gold-plated contact surfaces, Other pole numbers

### 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
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

### 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 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	19
Total number of potentials	19
Number of levels	1

### Geometrical Data

Pin spacing	5 mm (0.197 inch)
Width	98.2 mm / 3.866 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 (Ecu)
Contact plating	tin-plated
Fire load	0.105 MJ
Weight	5.932 g

## Environmental Requirements



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

Country of origin	DE
GTIN	4044918864077
Customs Tariff No.	85366990990
Product Group	3 (Multi Conn. System)

## Approvals / Certificates

### Country specific Approvals

Logo	Approval	Certificate name
	CB DEKRA Certification B.V.	NL-39756
	CSA DEKRA Certification B.V.	1466354
	CSA DEKRA Certification B.V.	1466354

### Ship Approvals

Logo	Approval	Certificate name
	ABS American Bureau of Shipping	14-HG1241537-PDA




# ABS



**DNV GL**  
Det Norske Veritas, Germanischer Lloyd

TAE000016Z

## UL-Approvals

Logo	Approval	Certificate name
	<b>UL</b> Underwriters Laboratories Inc.	E45172
	<b>UR</b> UL International Germany GmbH	E45171
	<b>UR</b> UL International Germany GmbH	E45171

## Compatible products

### Coding

	<b>Item no.: 231-129</b> Coding key; snap-on type	<a href="http://www.wago.com/231-129">www.wago.com/231-129</a>
	<b>Item no.: 231-500</b> Spacer; for formation of groups	<a href="http://www.wago.com/231-500">www.wago.com/231-500</a>

### Marking accessories

	<b>Item no.: 210-833</b> Marking strips; on reel; 6 mm wide; plain; Self-adhesive	<a href="http://www.wago.com/210-833">www.wago.com/210-833</a>
	<b>Item no.: 210-834</b> Marking strips; on reel; 5 mm wide; plain; Self-adhesive	<a href="http://www.wago.com/210-834">www.wago.com/210-834</a>

## Downloads

### smartDATA

### PCB libraries

EAGLE Library for WAGO Pluggable PCB Connectors (MULTI CONNECTION SYSTEM) 2.1 Compatible with EAGLE PCB Design Software Version 6.x or higher	Nov 17, 2017	ZIP 6.2 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
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
<b>CAD data</b>			
3D Download 231-149/001-000		URL	Download

Subject to changes.

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