

## Data sheet | Item number: 231-581/001-000

THT male header; 1.2 x 1.2 mm solder pin; angled; Pin spacing 5.08 mm; 21-pole



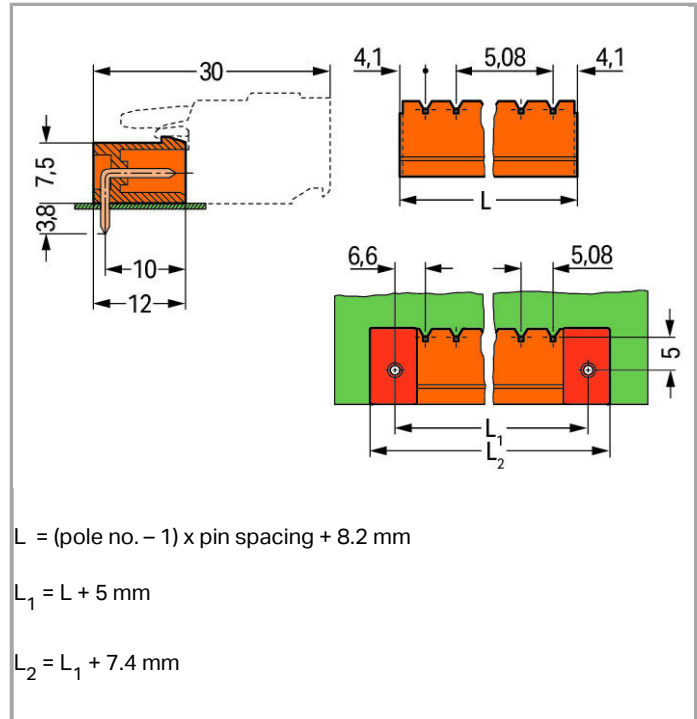
[www.wago.com/231-581/001-000](http://www.wago.com/231-581/001-000)



RoHS  Compliant

BOMcheck.net

Color: ■



### Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- 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)	250 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	16 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 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	21
Total number of potentials	21
Number of levels	1

### Geometrical Data

Pin spacing	5.08 mm (0.2 inch)
Width	109.8 mm / 4.323 inch
Height	12.2 mm / 0.48 inch
Height from the surface	8.4 mm / 0.331 inch
Depth	12 mm / 0.472 inch
Solder pin length	3.8 mm
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	1.7 <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	0°

### 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	orange
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	0.117 MJ
Weight	7.89 g

## Environmental Requirements


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

Country of origin	DE
GTIN	4044918931595
Customs Tariff No.	85366990990
Product Group	3 (Multi Conn. System)

## Approvals / Certificates

### Country specific Approvals

Logo	Approval	Certificate name
	<b>CB</b> DEKRA Certification B.V.	NL-39756
	<b>KEMA/KEUR</b> DEKRA Certification B.V.	2190761.01

### Ship Approvals

Logo	Approval	Certificate name
	<b>ABS</b> American Bureau of Shipping	14-HG1241537-PDA

### UL-Approvals

Logo	Approval	Certificate name
	<b>UL</b> UL International Germany GmbH	E45171



UR  
Underwriters Laboratories Inc.

E45172

## Compatible products

### Marking accessories



**Item no.: 210-833**  
Marking strips; on reel; 6 mm wide; plain; Self-adhesive

[www.wago.com/210-833](http://www.wago.com/210-833)



**Item no.: 210-834**  
Marking strips; on reel; 5 mm wide; plain; Self-adhesive

[www.wago.com/210-834](http://www.wago.com/210-834)

### Coding



**Item no.: 231-129**  
Coding key; snap-on type

[www.wago.com/231-129](http://www.wago.com/231-129)



**Item no.: 231-500**  
Spacer; for formation of groups

[www.wago.com/231-500](http://www.wago.com/231-500)

## Downloads

### smartDATA

#### 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 Nov 17, 2017	ZIP 6.2 MB	Download
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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
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#### CAD data

3D Download 231-581/001-000	URL	Download
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Subject to changes.

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