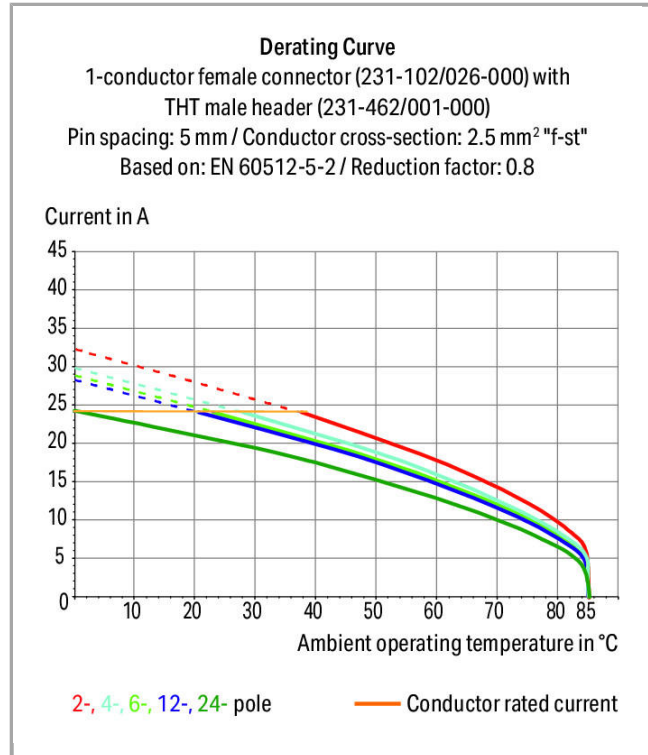


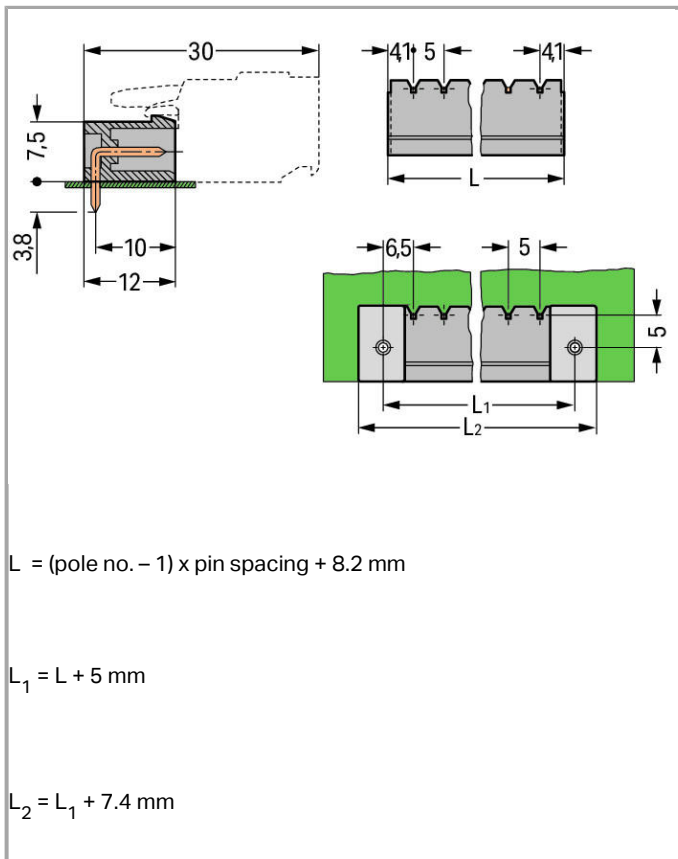
Data sheet | Item number: 231-475/001-000

THT male header; 1.2 x 1.2 mm solder pin; angled; Pin spacing 5 mm; 15-pole



231-475/001-000





### 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

### 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)	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

### 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	15
Total number of potentials	15
Number of connection types	1
Number of levels	1

### Geometrical Data

Pin spacing	5 mm / 0.197 inch
Width	78.2 mm / 3.079 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	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	0.087 MJ
Weight	5.75 g

### Environmental Requirements


Limit temperature range	-60 ... +100 °C
-------------------------	-----------------

### Commercial data



Product Group	3 (Multi Conn. System)
Country of origin	PL
GTIN	4044918930741
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

#### 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> UL International Germany GmbH	UL 1977	E45171
	<b>UR</b> UL International Germany GmbH	UL 1977	E45171

## Compatible products

## Marking accessories

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

## Coding

	<b>Item no.: 231-129</b> Coding key; snap-on type	231-129
	<b>Item no.: 231-500</b> Spacer; for formation of groups	231-500

## Downloads

## CAD/CAE - Smart Data

## 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	Oct 6, 2014	zip 6.2 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
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 231-475/001-000		URL	Download

Subject to changes.