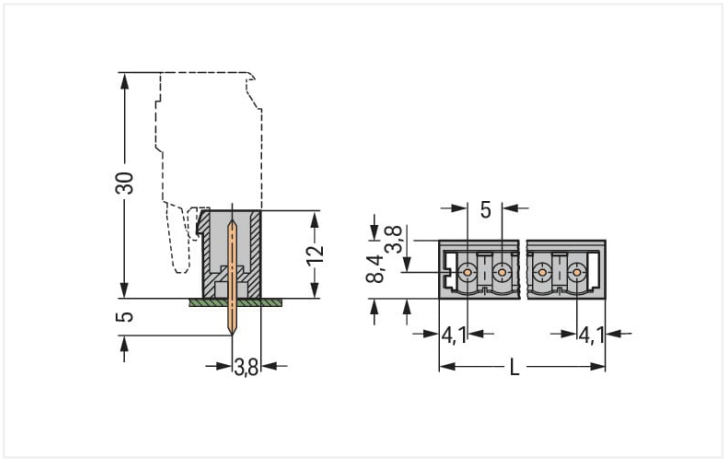
Data Sheet | Item Number: 231-180/001-000

THT male header; 1.2 x 1.2 mm solder pin; straight; Pin spacing 5 mm; 20-pole; gray

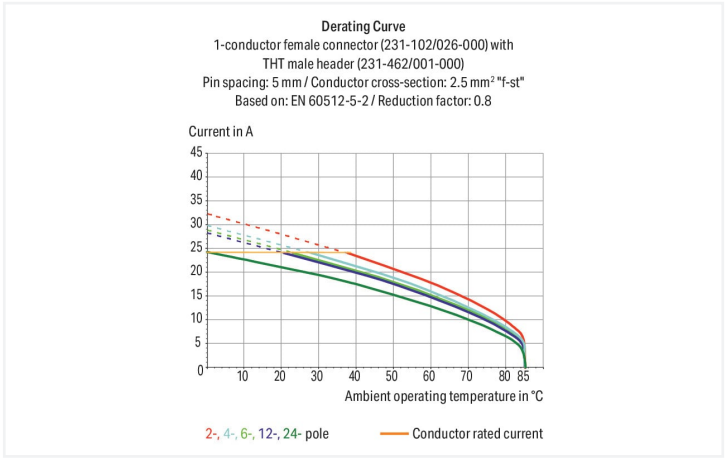
https://www.wago.com/231-180/001-000

Color: gray



Dimensions in mm

L = (pole no. – 1) x pin spacing + 8.2 mm



- 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

Notes

Safety information	The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load.When used as intended, these connectors must 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.
Variants:	Other pole numbers 3.8 mm pin projection for male headers with straight solder pins Gold-plated or partially gold-plated contact surfaces Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	250 V	320 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Approvals per	UL 1977
Rated voltage	600 V
Rated current	15 A

Approvals per	CSA		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection data

Total number of potentials	20
Number of connection types	1
Number of levels	1

Connection 1

Pole number	20

Physical data

Pin spacing	5 mm / 0.197 inches
Width	103.2 mm / 4.063 inches
Height	17 mm / 0.669 inches
Height from the surface	12 mm / 0.472 inches
Depth	8.4 mm / 0.331 inches
Solder pin length	5 mm
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter with tolerance	1.7 $^{(+0.1)}$ mm

Mechanical data

Variable coding	Yes
Anti-rotation protection	Yes

Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
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

Note (material data)	Information on material specifications can be found here
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin
Fire load	0.21 MJ
Weight	7.4 g

Continued on next page

Environmental requirements

Limit temperature range	-60 … +100 °C
Processing temperature	-35 … +60 °C

Commercial data

Product Group	3 (Multi Conn. System)
eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 8.0	EC002637
ETIM 7.0	EC002637
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918928878
Customs tariff number	85366930000

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-39756/A1
CSA DEKRA Certification B.V.	C22.2	LR 18677-25
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-121453
UL Underwriters Laboratories Inc.	UL 1059	E45172
UR Underwriters Laboratories Inc.	UL 1977	E45171

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
Railway WAGO GmbH & Co. KG	-	Railway Ready

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	19-HG1869876-PDA
BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV
DNV DNV GL SE	-	TAE000016Z

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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 231-180/001-000

Documentation

Additional Information

Technical Section	03.04.2019	pdf 2010.85 KB

CAD/CAE-Data

CAD data

2D/3D Models 231-180/001-000

CAE data

EPLAN Data Portal 231-180/001-000

ZUKEN Portal 231-180/001-000

1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket

Item No.: 231-120/026-000
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 20-pole; 2,50 mm²; gray

1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding

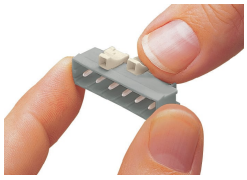
Item No.: 231-129
Coding key; snap-on type; light gray

1.2.1.2 Intermediate plate

Item No.: 231-500
Spacer; for formation of groups; light gray

Installation Notes

Coding



Coding a male header – fitting coding key (s).