

# Data Sheet | Item Number: 722-233/031-000

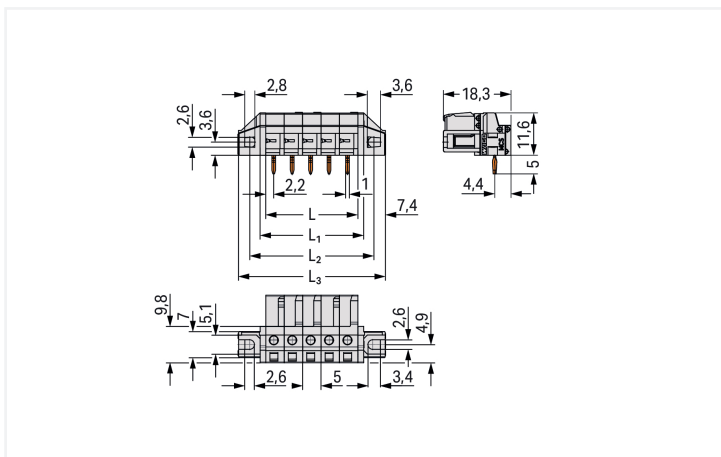
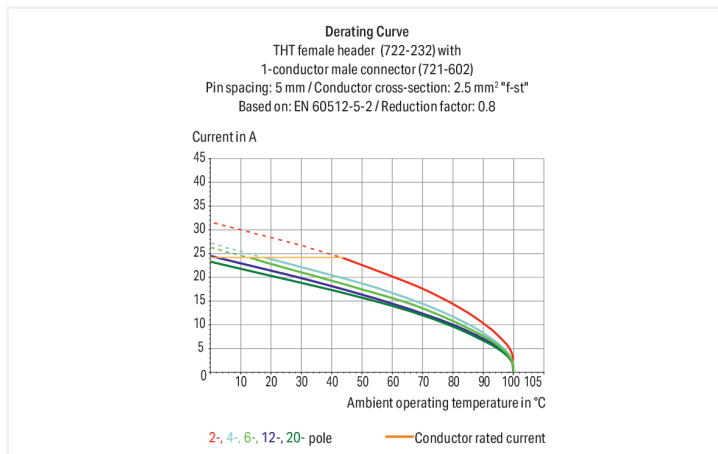
THT female header; angled; Pin spacing 5 mm; 3-pole; 100% protected against mis-mating; clamping collar; 0.6 x 1.0 mm solder pin; light gray

<https://www.wago.com/722-233/031-000>



Color: ■ light gray

Similar to illustration



Dimensions in mm

L = pole no. x pin spacing  
L1 = L + 3 mm  
L2 = L + 8.8 mm  
L3 = L + 14.8 mm  
2-pole female connectors – one latch only

Female connector, 722 Series, with 5 mm pin spacing

Easy electrical installations are guaranteed with this female connector (item number 722-233/031-000). The dimensions are (29.8 x 16.6 x 18.25) mm (width x height x depth).

Tin is used for coating the contact surfaces. THT is used to assemble the pcb connector.

## 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		
	III	III	II
Overtoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	320 V	320 V	630 V
Rated impulse withstand voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A

Approvals per	UL 1059		
	B	C	D
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	16 A	-	10 A

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

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

## Connection Data

Clamping units	3
Total number of potentials	3
Number of connection types	1
Number of levels	1

Connection 1	
Pole number	3

## Physical data

Pin spacing	5 mm / 0.197 inches
Width	29.8 mm / 1.173 inches
Height	16.6 mm / 0.654 inches
Height from the surface	11.6 mm / 0.457 inches
Depth	18.25 mm / 0.719 inches
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter with tolerance	1.3 <sup>(+0.1)</sup> mm

## Mechanical data

Variable coding	Yes
Mounting type	Mounting flange
Mounting type	Feed-through mounting Panel mounting
Anti-rotation protection	Yes
Suitable for through-panel applications	Yes

### Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for PCB
Mismating protection	Yes
Mating direction to the PCB	0°

### PCB contact

PCB contact	THT
Solder pin arrangement	over the entire female connector (in-line)
Number of solder pins per potential	1

### Material data

Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	light gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact Plating	Tin
Fire load	0.067 MJ
Weight	3.4 g

### Environmental requirements

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

### Environmental Testing

Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B
Functional test with noise-like oscillations	Test passed according to Section 8 of the standard
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine

**Environmental Testing**

Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

**Commercial data**

Product Group	3 (Multi Conn. System)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918626941
Customs tariff number	85366990990

**Product Classification**

UNSPSC	39121409
eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 9.0	EC002637
ETIM 10.0	EC002637
ECCN	NO US CLASSIFICATION

**Environmental Product Compliance**

RoHS Compliance Status	Compliant, No Exemption
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**Approvals / Certificates**

**General approvals**

**Declarations of conformity and manufacturer's declarations**



Approval	Standard	Certificate Name
CSA DEKRA Certification B.V.	C22.2	1466354
UL Underwriters Laboratories Inc.	UL 1059	E45172
UR Underwriters Laboratories Inc.	UL 1977	E45171

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

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance  
722-233/031-000



## Documentation

### Additional Information

Technical Section

03.04.2019

pdf

2027.26 KB



## CAD/CAE-Data

### CAD data

2D/3D Models  
722-233/031-000



### CAE data

EPLAN Data Portal  
722-233/031-000



ZUKEN Portal  
722-233/031-000



## PCB Design

Symbol and Footprint  
via SamacSys  
722-233/031-000



Symbol and Footprint  
via Ultra Librarian  
722-233/031-000



## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Male connector/plug



#### Item No.: 721-603

1-conductor male connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 3-pole; 100% protected against mismatching; 2,50 mm<sup>2</sup>; light gray

## 1.2 Optional Accessories

### 1.2.1 Installation

#### 1.2.1.1 Mounting accessories



[Item No.: 231-295](#)  
Screw with nut



[Item No.: 231-195](#)  
Screw with nut; M2x12; for fixing element



[Item No.: 209-147](#)  
Self-tapping screw



[Item No.: 231-194](#)  
Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø

### 1.2.2 Test and measurement

#### 1.2.2.1 Testing accessories



[Item No.: 210-136](#)  
Test plug; 2 mm Ø; with 500 mm cable; red



[Item No.: 231-661](#)  
Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm²; light gray