

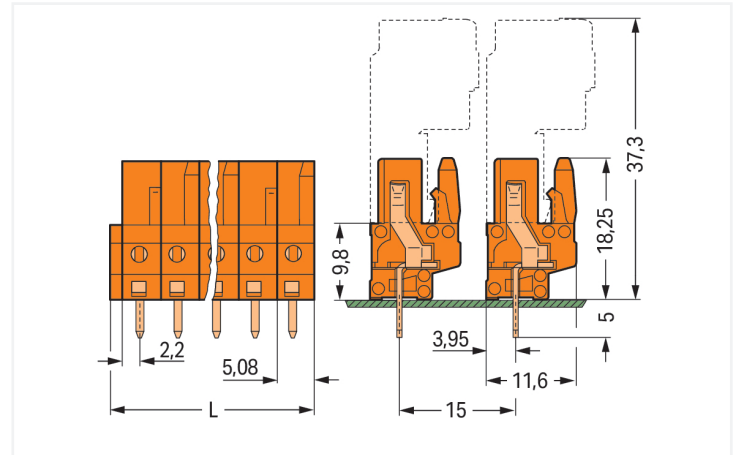
## Data Sheet | Item Number: 232-168

THT female header; straight; Pin spacing 5.08 mm; 8-pole; 0.6 x 1.0 mm solder pin; orange

<https://www.wago.com/232-168>



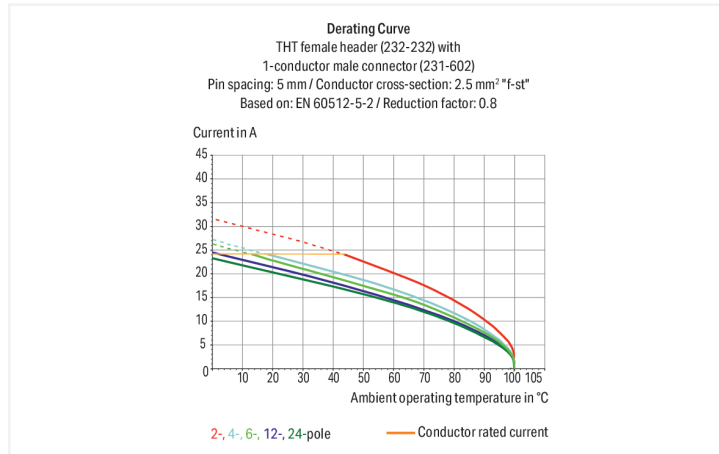
Color: ■ orange



Dimensions in mm

$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

2- to 3-pole female connectors – one latch only



### Federleiste/Buchse Serie 232, orange

Bei dieser Federleiste/Buchse mit der Artikelnummer 232-168 ist eine fehlerfreie Elektroinstallation der Fokus. Mit unseren Leiterplatten-Steckverbindern bekommen Sie ein ganzheitliches Steckverbindersystem, das vielseitig eingesetzt werden kann: als Leiterplatten-Steckverbinder, als Durchführungssteckverbinder, als fliegende Steckverbindung für verschiedene Montagearten oder als Steckverbinder auf Reihenklemmen. Die Abmessungen sind in Breite x Höhe x Tiefe (42,14 x 23,25 x 11,6) mm. Die Kontaktoberfläche besteht aus Zinn. Das MCS – "Multi Connection System" von WAGO ist ein vielfältiges Steckverbindersystem für Ihre durchgängige Systemverdrahtung. Es ermöglicht Ihnen eine vereinfachte Verdrahtung in der Kabelvorkonfektionierung und auf Geräten durch zwei Betätigungsrichtungen für die CAGE CLAMP®-Varianten. Die Verlotung des Leiterplatten-Steckverbinders erfolgt mittels THT.

### 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	320 V	320 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 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

Clamping units	8
Total number of potentials	8
Number of connection types	1
Number of levels	1

Connection 1	
Pole number	8

### Physical data

Pin spacing	5.08 mm / 0.2 inches
Width	42.14 mm / 1.659 inches
Height	23.25 mm / 0.915 inches
Height from the surface	18.25 mm / 0.719 inches
Depth	11.6 mm / 0.457 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
Anti-rotation protection	Yes

### Plug-in connection

Contact type (pluggable connector)	Female connector/socket
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 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	orange
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact Plating	Tin
Fire load	0.125 MJ
Weight	7.4 g

## Environmental requirements

Limit temperature range	-60 ... +100 °C	<b>Environmental Testing (Environmental Conditions)</b>	
Processing temperature	-35 ... +60 °C	Test specification	DIN EN 50155 (VDE 0115-200):2022-06
		Railway applications – Rolling stock – Electronic equipment	
		Test procedure	DIN EN 61373 (VDE 0115-0106):2011-04
		Railway applications – Rolling stock equipment – Shock and vibration tests	
		Spectrum/Installation location	Service life test, Category 1, Class A/B
		Function test with noise-like vibration	Test passed according to Section 8 of the standard
		Frequency	$f_1 = 5 \text{ Hz to } f_2 = 150 \text{ Hz}$ $f_1 = 5 \text{ Hz to } f_2 = 150 \text{ Hz}$
		Acceleration	0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes)
		Test duration per axis	10 min. 5 h
		Test directions	X, Y and Z axes X, Y and Z axes X, Y and Z axes
		Monitoring for contact faults/interruptions	Passed
		Voltage drop measurement before and after each axis	Passed
		Simulated service life test through increased levels of noise-like vibration	Test passed according to Section 9 of the standard
		Extended test scope: Monitoring for contact faults/interruptions	Passed Passed
		Extended test scope: Voltage drop measurement before and after each axis	Passed Passed
		Shock test	Test passed according to Section 10 of the standard
		Shock form	Half sine
		Shock duration	30 ms
		Number of shocks per axis	3 pos. und 3 neg.
		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	4044918578752
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 8.0	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
CB DEKRA Certification B.V.	IEC 61984	NL-113351
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-130478 REV.1
UL UL International Germany GmbH	UL 1977	E45171
UR Underwriters Laboratories Inc.	UL 1059	E45172



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

**Approvals for marine applications**



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	19-HG15869876-PDA
DNV DNV GL SE	-	TAE000016Z
LR Lloyds Register	IEC 61984	96/20035 (E5)

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 232-168



## Documentation

### Additional Information

Technical Section

03.04.2019

pdf

2027.26 KB



## CAD/CAE-Data

### CAD data

2D/3D Models 232-168



### CAE data

EPLAN Data Portal 232-168



ZUKEN Portal 232-168



## PCB Design

Symbol and Footprint via SamacSys 232-168



Symbol and Footprint via Ultra Librarian 232-168



## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Male connector/plug



[Item No.: 231-638/019-000](#)

1-conductor male connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 8-pole; clamping collar; orange

[Item No.: 231-638](#)

1-conductor male connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 8-pole; orange

## 1.2 Optional Accessories

### 1.2.1 Test and measurement

#### 1.2.1.1 Testing accessories



**Item No.: [231-661](#)**

Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm<sup>2</sup>; light gray