# Data sheet | Item number: 232-738/039-000 THT female header; straight; Pin spacing 7.5 mm; 8-pole; Locking lever; 0.6 x 1.0 mm solder pin; gray www.wago.com/232-738/039-000



70

80 85

**Derating Curve** THT female header (232-832) with 1-conductor male connector (731-602) Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm<sup>2</sup> "f-st" Based on: EN 60512-5-2 / Reduction factor: 0.8 Current in A 45 40 35 30 • • • 25 20 15 10 5 0 10 20 30 40 50 60 Picture differs from the item. Ambient operating temperature in °C 2-, 4-, 6-, 12-, 16- pole Conductor rated current Color:

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# Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

# Data Notes

Safety information	The <i>MCS – MULTI CONNECTION SYSTEM</i> 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/.

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# **Electrical data**

# Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	500 V
Rated impulse voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated impulse voltage (III/2)	6 kV
Nominal voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
Rated current	12 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

# Ratings per UL 1059

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

## Ratings per UL 1977

Rated voltage (UL 1977)	600 V
Rated current UL 1977	15 A

# **Ratings per CSA**

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**

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

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# **Connection 1**

Pole number

# Physical data

Pin spacing	7.5 mm / 0.295 inches
Width	73.3 mm / 2.886 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
Plugging without loss of pin spacing	No
Mating direction to the PCB	90 °
Locking of plug-in connection	locking lever

# PCB contact

PCB contact	ТНТ
Solder pin arrangement	over the entire female 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

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Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin
Fire load	0.378 MJ
Weight	9.6 g

# **Environmental requirements**

Limit temperature range	-60 +85 °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)	25 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454614584
Customs tariff number	85366990990

## **Environmental Product Compliance**

Compliant,No Exemption

# Approvals / Certificates

#### **General approvals**

Logo	Approval	Additional Approval Text	Certificate name
<b>A</b> L	<b>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172
<b>A1</b> °	<b>UR</b> Underwriters Laboratories Inc.	UL 1977	E 45171

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

			Certificate
Logo	Approval	Additional Approval Text	name
RAILWAY READY	<b>Railway</b> WAGO GmbH & Co. KG	-	Railway Ready

#### Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
HTM TO THE REAL	ABS American Bureau of Shipping	-	19- HG15869876- PDA
	<b>BV</b> Bureau Veritas S.A.	IEC 60998	11915/D0 BV
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	EN 60998	TAE000016Z

#### Counterpart

and the second	ltem no.731-608	WWWWW290 00m/721 609
and the second	1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 8-pole; 2,50 mm²; gray	www.wago.com/731-608

# **Optional accessories**

Testing and measuring

Testing accessories

Item no.: 210-136 Test plug; 2 mm Ø; with 500 mm cable; red		www.wago.com/210-136
	<b>Item no.: 231-662</b> Test plugs for female connectors; for 7.5 mm and 7.62 mm pin spacing; 2,50 mm <sup>2</sup> ; light gray	www.wago.com/231-662

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Downloads

# **N⁄AGO**

Documentation			
Additional Information			
Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.0 MB	
CAD/CAE-Data			
CAD data			
2D/3D Models 232-738/039-000		URL	Download
PCB Design			
Symbol and Footprint 232-738/039-000		URL	Download
CAx data for your PCB design, consisting of "schematic symbols and PCB footprints",			
allow easy integration of the WAGO component into your development environment.			
Supported formats:			
Accel EDA 14 & 15			
Altium 6 to current version			
Cadence Allegro			
DesignSpark			
Eagle Libraries			
■ KiCad			
Mentor Graphics BoardStation			
Mentor Graphics Design Architect			
Mentor Graphics Design Expedition 99 and 2000			
OrCAD 9.X PCB and Capture			
PADS PowerPCB 3, 3.5, 4.X, and 5.X			
PADS PowerPCB and PowerLogic 3.0			
PCAD 2000, 2001, 2002, 2004, and 2006			
Pulsonix 8.5 or newer			
STL			
■ 3D STEP			
TARGET 3001!			
View Logic ViewDraw			
Quadcept			

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- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

# CAE data

ZUKEN Portal 232-738/039-000	URL	Download
Environmental Product Compliance		
Compliance Search		
Environmental Product Compliance 232-738/039-000	URL	Download
THT female header; straight; Pin spacing 7.5 mm; 8-pole; Locking lever; 0.6 x 1.0 mm solder pin; gray		

## Installation Notes

**Product family** 

MCS MIDI Classic Show all products from the family

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