

**Data sheet | Item number: 232-843**

THT female header; angled; Pin spacing 7.5 mm; 13-pole; 0.6 x 1.0 mm solder pin; gray

[www.wago.com/232-843](http://www.wago.com/232-843)



Subject to changes. Please also observe the further product documentation!

WAGO Corporation  
Germantown, WI 53022  
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222  
Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

Do you have any questions about our products?  
We are always happy to take your call at +49 (571) 887-44222.



Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 1.5 \text{ mm}$

Distance to first solder pin: 2.2 mm

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

### 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

Subject to changes. Please also observe the further product documentation!



## Data

### Notes

Safety information 1

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. 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

### IEC Approvals

Ratings per	IEC/EN 60664-1
Rated voltage (III / 3)	500 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated surge 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) $\triangleq$ Overvoltage category III / Pollution degree 2

### UL Approvals

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

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

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## CSA Approvals

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	13
Number of connection types	1
Number of levels	1

## Connection 1

Number of poles	13
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## Physical data

Pin spacing	7.5 mm / 0.295 inch
Width	96.5 mm / 3.799 inch
Height	16.6 mm / 0.654 inch
Height from the surface	11.6 mm / 0.457 inch
Depth	18.25 mm / 0.719 inch
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

## Plug-in connection

Contact type (pluggable connector)	Female header
Connector (connection type)	for PCB
Mismatching protection	No
Mating direction to the PCB	0°
Locking of plug-in connection	Without

## PCB contact

PCB Contact	THT
Solder pin arrangement	over the entire female connector (in-line)

Subject to changes. Please also observe the further product documentation!

Number of solder pins per potential	1
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### Material data

Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	tin-plated
Fire load	0.283 MJ
Weight	14.3 g

### Environmental requirements


Limit temperature range	-60 ... +85 °C
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### Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	10 Stück
Packaging type	box
Country of origin	DE
GTIN	4044918580199
Customs tariff number	85366990990

### Approvals / Certificates

#### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>CB</b> DEKRA Certification B.V.	IEC 61984	NL-39756
	<b>KEMA/KEUR</b> DEKRA Certification B.V.	EN 61984	2190761.01

#### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG15869876-

Subject to changes. Please also observe the further product documentation!





<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z
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<b>LR</b> Lloyds Register	IEC 61984	96/20035 (E5)
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**UL-Approvals**

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

**Counterpart**



<b>Item no.731-613</b> 1-conductor male connector; CAGE CLAMP®; 2.5 mm <sup>2</sup> ; Pin spacing 7.5 mm; 13-pole; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/731-613">www.wago.com/731-613</a>
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<b>Item no.731-613/019-000</b> 1-conductor male connector; CAGE CLAMP®; 2.5 mm <sup>2</sup> ; Pin spacing 7.5 mm; 13-pole; clamping collar; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/731-613/019-000">www.wago.com/731-613/019-000</a>
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**Optional accessories**

**Testing accessories**

Testing accessories



<b>Item no.: 210-136</b> Test plug; 2 mm Ø; with 500 mm cable	<a href="http://www.wago.com/210-136">www.wago.com/210-136</a>
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<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	<a href="http://www.wago.com/231-662">www.wago.com/231-662</a>
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## Downloads

### Documentation

#### Additional Information

Technical explanations	2019 Apr 3	pdf 2.0 MB	Download
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### CAD files

#### CAD data

2D/3D Models 232-843	URL	Download
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#### CAE data

EPLAN Data Portal 232-843	URL	Download
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ZUKEN Portal 232-843	URL	Download
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### PCB Design

Symbol and Footprint 232-843	URL	Download
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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

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- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

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

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 232-843

URL

Download

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## Installation Notes

## Product family

**MCS MIDI Classic**

[Show all products from the family](#)

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