

Data sheet | Item number: 733-333/105-604

THR male header; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 2.5 mm; 3-pole; black

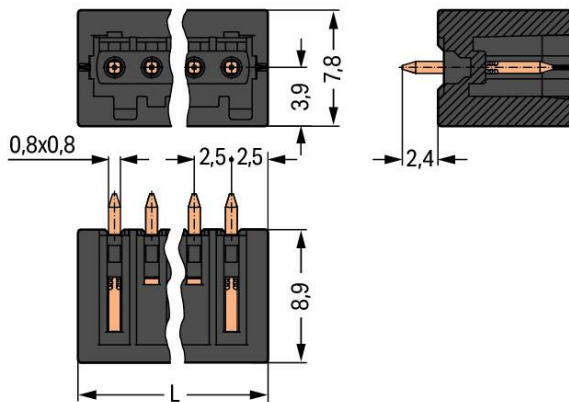
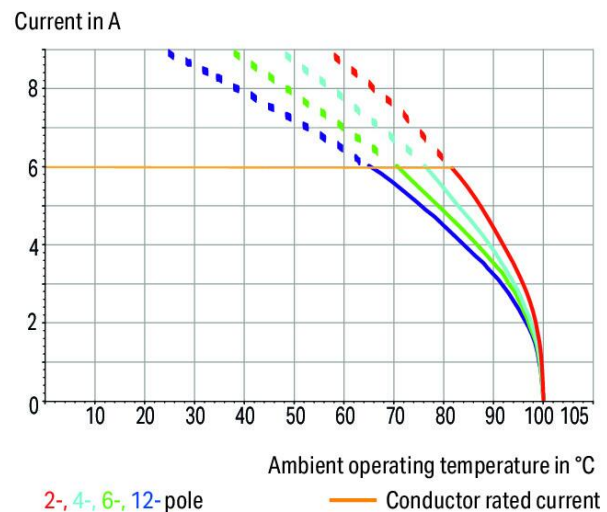
www.wago.com/733-333/105-604



 Picture differs from the item.

Color: 

Derating Curve
1-conductor female connector (733-102) with
THR male header (733-332/105-604)
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Dimensions in mm

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

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

WAGO GmbH & Co. KG

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Item description

- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Optimal thermal penetration via pin enclosure design provides lower soldering temperatures
- 100% protected against mismatching
- Coding option available

Data

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
Other solder pin lengths
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

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	80 V
Rated impulse voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated impulse voltage (III/2)	2.5 kV
Nominal voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
Rated current	6 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

Ratings per UL

Approvals per	UL 1059
Rated voltage UL (Use Group B)	150 V

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Rated current UL (Use Group B)	4 A
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Ratings per CSA

Approvals per	CSA
Rated voltage CSA (Use Group B)	150 V
Rated current CSA (Use Group B)	4 A

Connection data

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

Connection 1

Pole number	3
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Physical data

Pin spacing	2.5 mm / 0.098 inches
Width	10 mm / 0.394 inches
Height	11.3 mm / 0.445 inches
Height from the surface	8.9 mm / 0.35 inches
Depth	7.8 mm / 0.307 inches
Solder pin length	2.4 mm
Solder pin dimensions	0.8 x 0.8 mm
Plated through-hole diameter (THR)	1.2 ^(+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	Yes
Plugging without loss of pin spacing	No
Mating direction to the PCB	90 °

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



PCB contact

PCB contact	THR
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	black
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{Cu})
Contact plating	Tin
Fire load	0.012 MJ
Weight	0.7 g
MSL per J-STD 020D	1

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)	200 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454676087
Customs tariff number	85366930000

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Environmental Product Compliance

RoHS Compliance Status

Compliant, No Exemption

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	IEC 61984	NL-31141
	CCA DEKRA Certification B.V.	EN 61984	2169534.01
	CSA DEKRA Certification B.V.	C22.2	1465035
	UL UL International Germany GmbH	UL 1977	E45171
	UL Underwriters Laboratories Inc.	UL 1059	E45172

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1869876- PDA
	DNV DNV GL SE	-	TAE000016Z

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Counterpart

**Item no. 733-103**

1-conductor female connector; CAGE CLAMP®; 0.5 mm²; Pin spacing 2.5 mm; 3-pole; 100% protected against mismatching; 0,50 mm²; light gray

www.wago.com/733-103

Optional accessories

Coding

Coding

**Item no.: 733-331**

Coding key; snap-on type; black

www.wago.com/733-331

Downloads

Documentation

Additional Information

	2019 Apr 3	pdf 2.1 MB	Download
THR Soldering Process		pdf 548.2 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 733-333/105-604	URL	Download
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CAE data

ZUKEN Portal 733-333/105-604	URL	Download
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Asset Administration Shell

Asset Administration Shell 733-333/105-604	URL	Download
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PCB Design

Symbol and Footprint via SamacSys 733-333/105-604	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.		

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



Supported formats:

- 3D (stp)
- Altium
- CADSTAR
- Capture
- CircuitStudio
- CR-5000
- CR-8000
- DEHDL
- DesignSpark PCB
- DesignSpark PCB PRO
- DipTrace
- EAGLE
- Easy-PC
- EasyEDA
- eCADSTAR
- KiCad
- OrCAD_Allegro16
- PADS
- Proteus
- Pulsonix
- Quadcept
- SOLIDWORKS PCB
- TARGET 3001!
- xDX Designer
- Xpedition

PCB Component Libraries (EDA), PCB CAD Library SamacSys Electronic Component Search Engine

Symbol and Footprint via Ultra Librarian 733-333/105-604

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
- Altair

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- Altium 6 to current version
- Autodesk Fusion 360
- 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
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000
- Zuken eCADSTAR 2020 and 2021Zuken CR-5000 and CR-8000

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

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 733-333/105-604	URL	Download
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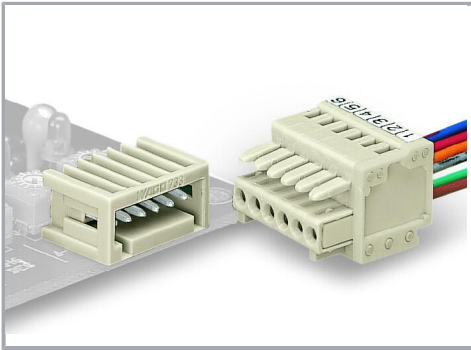
Installation Notes

Mismatching protection

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

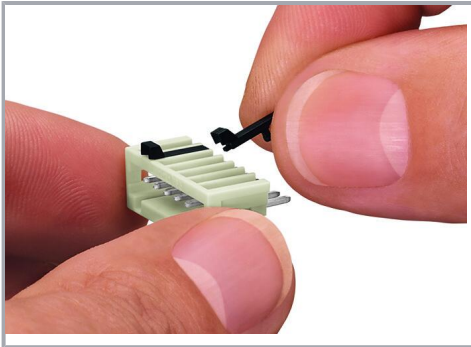
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Male headers and female connectors are 100% protected against mismatching. Only mating halves with the same pole number can be connected.

Coding



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

Product family

MCS MICRO

[Show all products from the family](#)

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