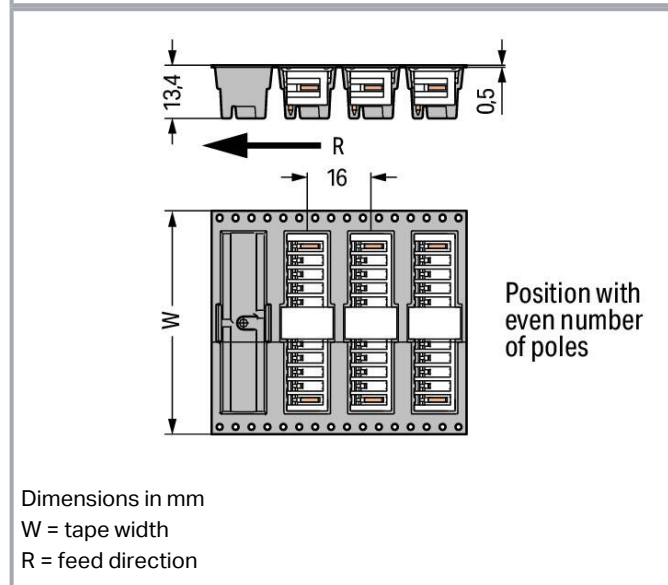
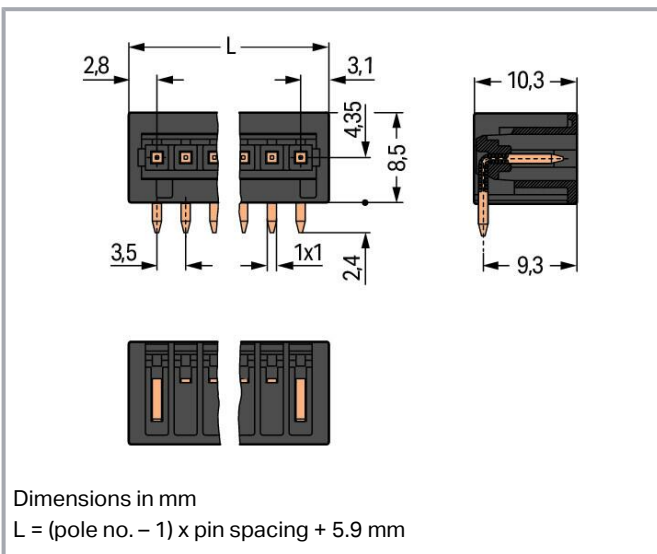
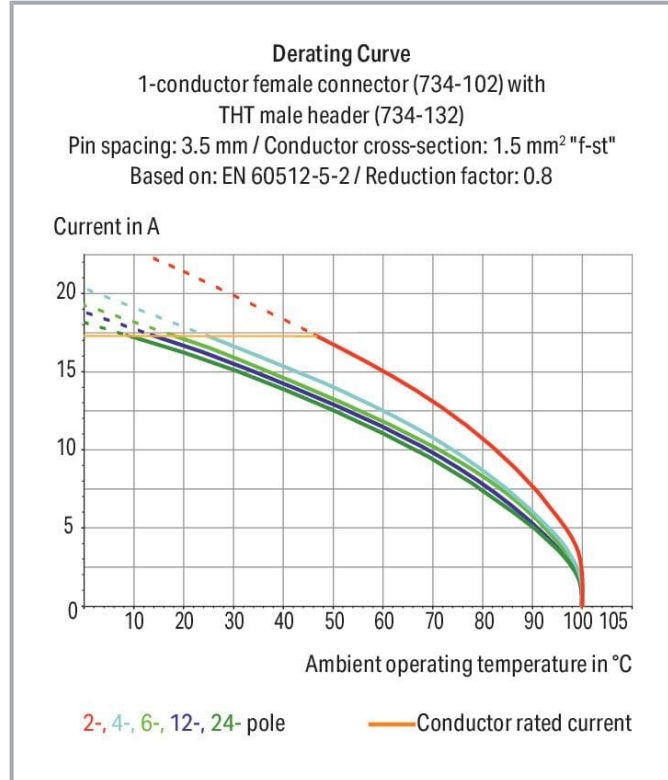
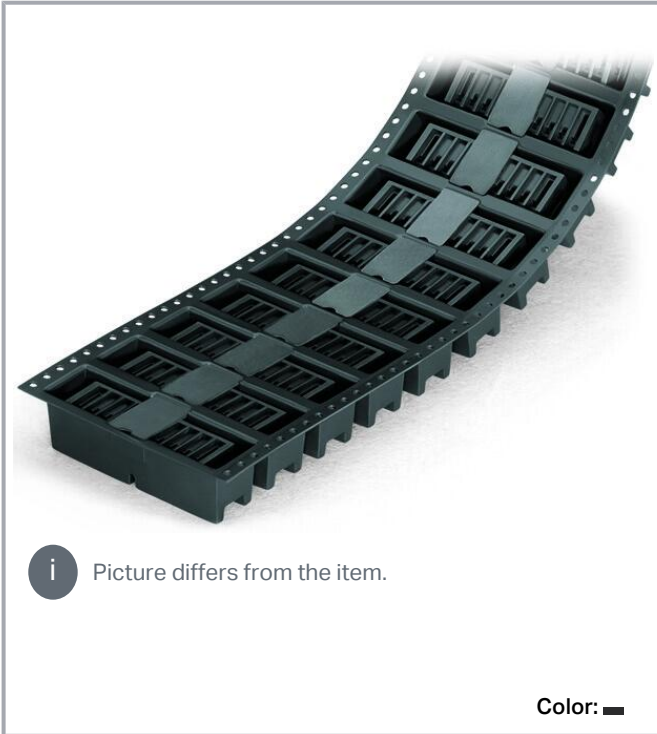


Data sheet | Item number: 734-163/105-604/997-405



THR male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 3-pole; black

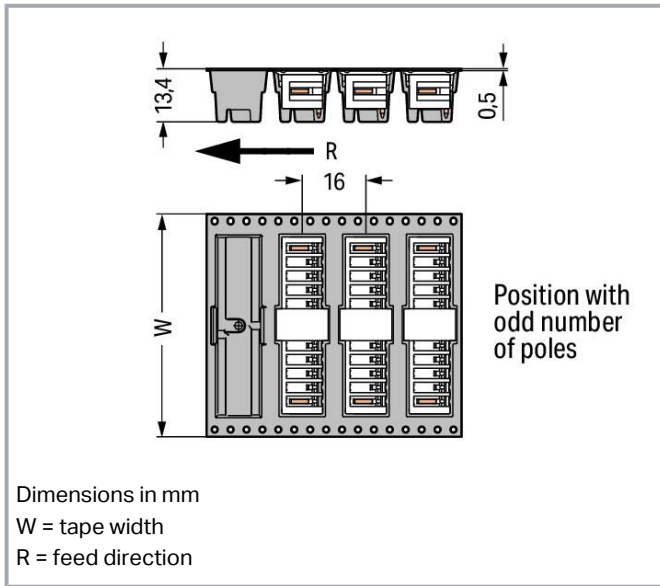
[www.wago.com/734-163/105-604/997-405](http://www.wago.com/734-163/105-604/997-405)



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

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Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

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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 via coding fingers

## 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

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

**Ratings per IEC/EN**

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	160 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	10 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

**Ratings per UL**

Approvals per	UL 1059
Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	10 A
Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	10 A

**Ratings per CSA**

Approvals per	CSA
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 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	3.5 mm / 0.138 inches
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Subject to changes. Please also observe the further product documentation!



Width	12.9 mm / 0.508 inches
Height	10.9 mm / 0.429 inches
Height from the surface	8.5 mm / 0.335 inches
Depth	10.3 mm / 0.406 inches
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 <sup>(+0.1)</sup> mm
Reel diameter of tape-and-reel packaging	330 mm
Tape width	32 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	0°
Locking of plug-in connection	none

### 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 <sub>Cu</sub> )

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



Contact plating	Tin
Fire load	0.022 MJ
Weight	1 g
MSL per J-STD 020D	1

**Environmental requirements**

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


**Commercial data**

eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 8.0	EC002637
ETIM 7.0	EC002637
ECCN	NO DATA
PU (SPU)	280 pcs
Packaging type	bag
Country of origin	DE
GTIN	4044918944991
Customs tariff number	85366930000

**Environmental Product Compliance**

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

Logo	Approval	Additional Approval Text	Certificate name
	<b>CB</b> DEKRA Certification B.V.	EN 61984	NL-54190
	<b>KEMA/KEUR</b> DEKRA Certification B.V.	EN 61984	71- 105522

**Approvals for marine applications**

Logo	Approval	Additional Approval Text	Certificate name
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DNV  
DNV GL SE

TAE000016Z

## Counterpart



Item no. 734-103

1-conductor female connector; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 3-pole; 100% protected against mismatching; 1,50 mm²; light gray

[www.wago.com/734-103](http://www.wago.com/734-103)

## Optional accessories

### Coding

Coding



Item no.: 734-159

Coding key; to be snapped above top level; black

[www.wago.com/734-159](http://www.wago.com/734-159)

## Downloads

### Documentation

#### Additional Information

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

## CAD/CAE-Data

### CAE data

EPLAN Data Portal 734-163/105-604/997-405	URL	Download
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### CAD data

2D/3D Models 734-163/105-604/997-405	URL	Download
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### Asset Administration Shell

Asset Administration Shell 734-163/105-604/997-405	URL	Download
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## PCB Design

Symbol and Footprint via Ultra Librarian 734-163/105-604/997-405

[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
- 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

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Symbol and Footprint via SamacSys 734-163/105-604/997-405

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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

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 734-163/105-604/997-405

[URL](#)

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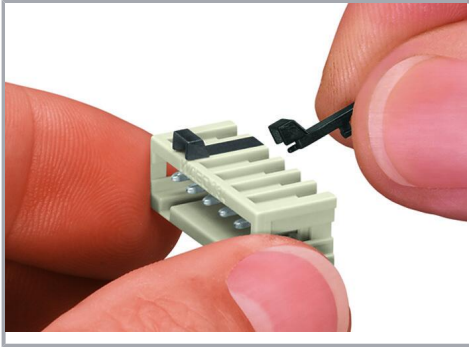


THR male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 3-pole; black

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## Installation Notes

### Coding



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

## Product family

### MCS MINI

[Show all products from the family](#)

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