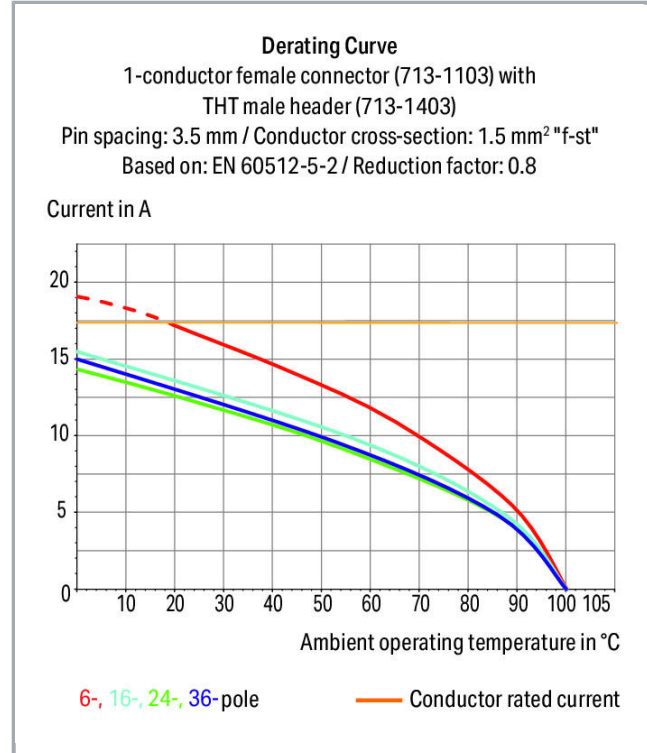
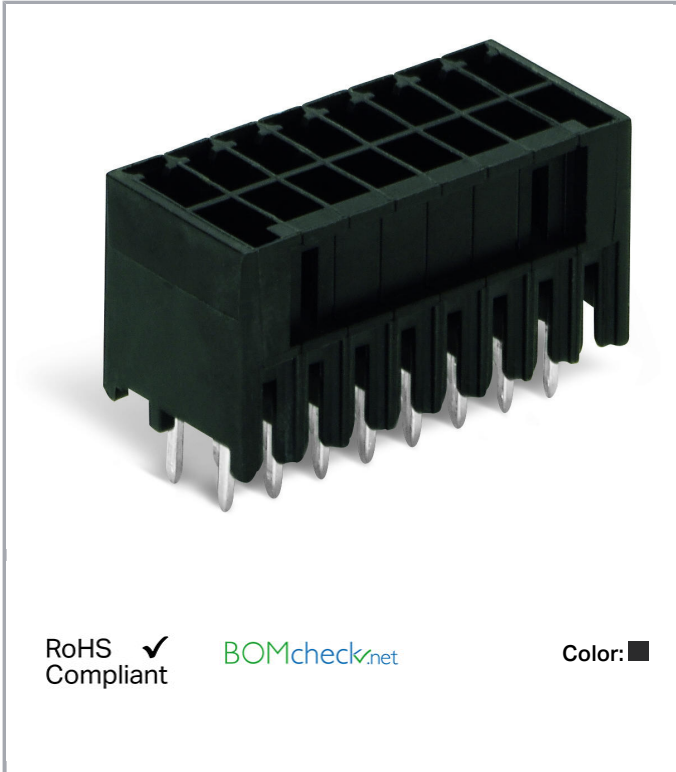


**Data sheet | Item number: 713-1416**

THT male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.5 mm; 2 x 16-pole; black

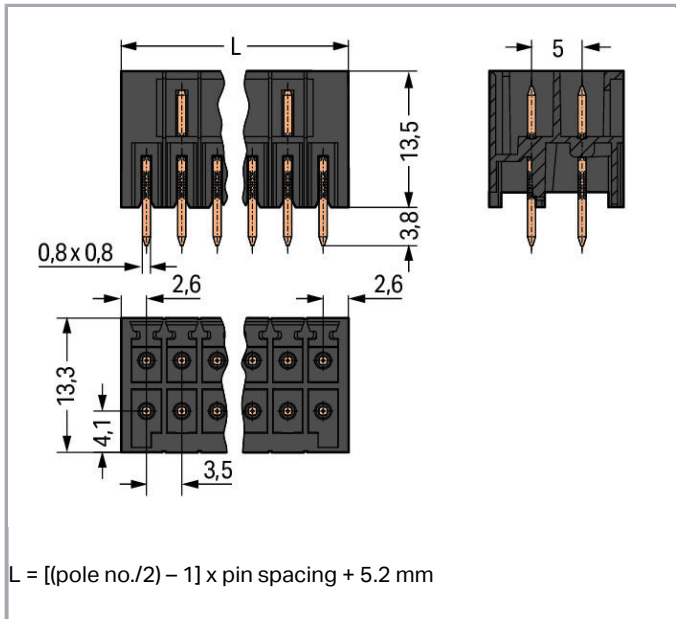
[www.wago.com/713-1416](http://www.wago.com/713-1416)



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## Item description

- Male headers may be mounted horizontally or vertically via straight or angled solder pins
- Header housing is molded of THT-compatible insulation material for lead-free reflow soldering
- Separated pin slots prevent damage and make the headers touch-proof when unplugged
- 100% protected against mismatching
- Coding pins available

## Safety information 1:

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall 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.

## Data

### Electrical data

### Ratings per IEC/EN 60664-1

Ratings per	IEC/EN 60664-1
Rated 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

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Rated voltage (II / 2)	250 V
Rated impulse voltage (II / 2)	2.5 kV
Rated current	10 A
Legend (ratings)	(III / 2) $\triangleq$ Overvoltage category III / Pollution degree 2

### Approvals per UL 1059

Rated voltage UL (Use Group B)	150 V
Rated current UL (Use Group B)	10 A
Rated voltage UL (Use Group C)	50 V
Rated current UL (Use Group C)	10 A
Approvals per	UL 1059

### Approvals per CSA

Rated voltage CSA (Use Group B)	150 V
Rated current CSA (Use Group B)	12 A

### Connection data

No. of poles	32
Total number of potentials	3
Number of connection types	1
Number of levels	2

### Geometrical Data

Pin spacing	3.5 mm / 0.138 inch
Width	57.5 mm / 2.264 inch
Height	17.3 mm / 0.681 inch
Height from the surface	13.5 mm / 0.531 inch
Depth	13.3 mm / 0.524 inch
Solder pin length	3.8 mm
Solder pin dimensions	0.8 x 0.8 mm
Drilled hole diameter (tolerance)	1.2 <sup>(+0.1)</sup> mm

### Plug connection

Contact type (pluggable connector)	Male connector/plug
Connector connection type	for PCBs
Mismating protection	Yes

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

Mating direction to the PCB	90°
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### PCB contact

PCB contact	THT
Solder pin arrangement	over the entire male connector, in line
Number of solder pins per potential	1

### Material Data

Color	black
Material group	I
Insulating material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper ( $E_{Cu}$ )
Contact plating	tin-plated
Fire load	0.166 MJ
Weight	8.1 g

### Environmental Requirements


Limit temperature range	-60 ... +100 °C
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### Commercial data

Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	PL
GTIN	4045454700119
Customs Tariff No.	85366990990

### Approvals / Certificates

#### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	IEC 61984	NL-30980
	CCA DEKRA Certification B.V.	EN 61984	2169947.01

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CSA  
DEKRA Certification B.V.






C22.2 No. 158

2315087

## UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	20190122- E45172

## Counterpart

	<b>Item no.713-1116</b> 1-conductor female plug; 100% protected against mismatching; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 32-pole; 1,50 mm <sup>2</sup> ; black	<a href="http://www.wago.com/713-1116">www.wago.com/713-1116</a>
	<b>Item no.713-1116/000-047</b> 1-conductor female plug; 100% protected against mismatching; direct marking; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 32-pole; 1,50 mm <sup>2</sup> ; black	<a href="http://www.wago.com/713-1116/000-047">www.wago.com/713-1116/000-047</a>
	<b>Item no.713-1116/000-9037</b> 1-conductor female plug; 100% protected against mismatching; direct marking; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 32-pole; 1,50 mm <sup>2</sup> ; black	<a href="http://www.wago.com/713-1116/000-9037">www.wago.com/713-1116/000-9037</a>
	<b>Item no.713-1116/035-047</b> 1-conductor female connector, 2-row; 100% protected against mismatching; Strain relief plate; direct marking; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 32-pole; 1,50 mm <sup>2</sup> ; black	<a href="http://www.wago.com/713-1116/035-047">www.wago.com/713-1116/035-047</a>
	<b>Item no.713-1116/035-9037</b> 1-conductor female connector, 2-row; 100% protected against mismatching; Strain relief plate; direct marking; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 32-pole; 1,50 mm <sup>2</sup> ; black	<a href="http://www.wago.com/713-1116/035-9037">www.wago.com/713-1116/035-9037</a>

## Compatible products

### Coding

Item no.: 714-101  
Coding key; orange

[www.wago.com/714-101](http://www.wago.com/714-101)

## Downloads

### Documentation

### Additional Information

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Technical explanations

Apr 3, 2019

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## CAD/CAE-Data

### CAD data

2D/3D Models 713-1416

[URL](#)

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### PCB Design

Symbol and Footprint 713-1416

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

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

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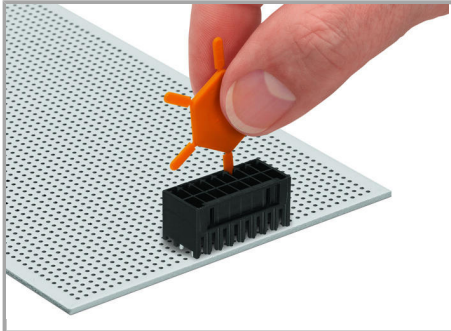
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## Installation Notes

### Coding



Coding a male header by inserting a coding pin.

### Product family

*MCS* MINI HD

[Learn more about the product family.](#)

[Show all products from the family](#)

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