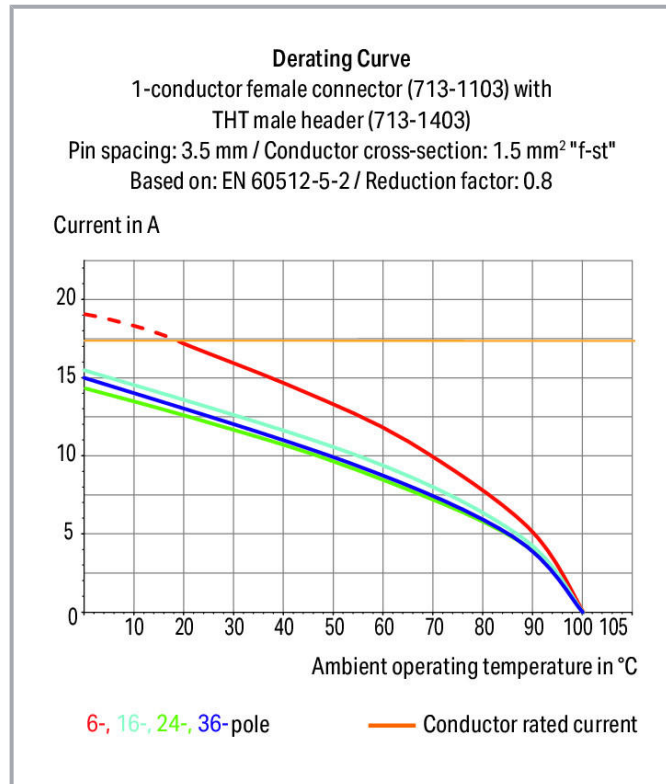
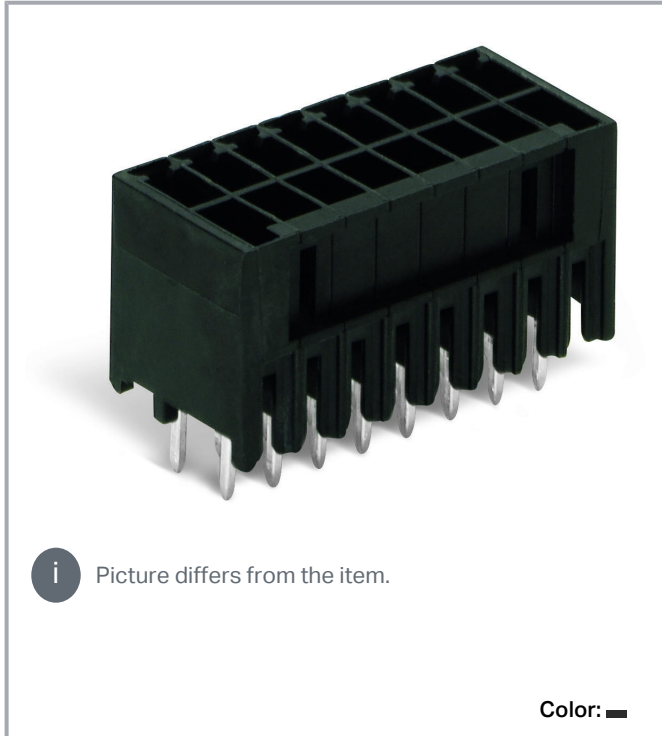


## Data sheet | Item number: 713-1410

THT male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.5 mm; 20-pole; black

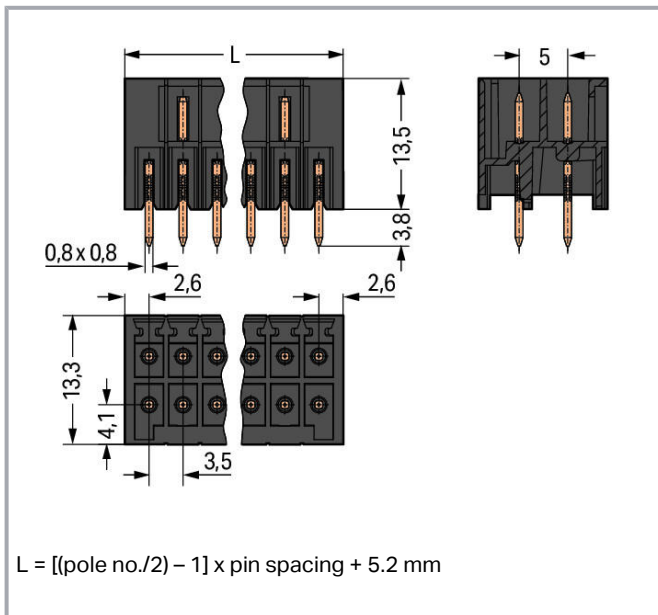
[www.wago.com/713-1410](http://www.wago.com/713-1410)



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

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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 option available

## 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.

## Data

### Electrical data

### Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	80 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV

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

### Ratings per UL

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

### Ratings per CSA

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

### Connection data

Pole No.	20
Total number of potentials	20
Number of connection types	1
Number of levels	2

### Physical data

Pin spacing	3.5 mm / 0.138 inch
Width	36.5 mm / 1.437 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 with tolerance	1.2 <sup>(+0.1)</sup> mm

### Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB

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



Mismating protection	Yes
Mating direction to the PCB	90°
Locking of plug-in connection	Without

### 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
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	tin-plated
Fire load	0.108 MJ
Weight	5.2 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	4045454700058
Customs tariff number	85366990990

### Approvals / Certificates

#### Country specific Approvals

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

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CSA  
DEKRA Certification B.V.

C22.2

2315087

#### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	E45172-19950922

#### Counterpart



**Item no.713-1110**

1-conductor female connector, 2-row; 100% protected against mismatching; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 20-pole; 1,50 mm<sup>2</sup>; black

[www.wago.com/713-1110](http://www.wago.com/713-1110)



**Item no.713-1110/000-047**

1-conductor female connector, 2-row; 100% protected against mismatching; direct marking; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 20-pole; 1,50 mm<sup>2</sup>; black

[www.wago.com/713-1110/000-047](http://www.wago.com/713-1110/000-047)



**Item no.713-1110/000-9037**

1-conductor female connector, 2-row; 100% protected against mismatching; direct marking; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 10-pole; 1,50 mm<sup>2</sup>; black

[www.wago.com/713-1110/000-9037](http://www.wago.com/713-1110/000-9037)



**Item no.713-1110/033-047**

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; 20-pole; 1,50 mm<sup>2</sup>; black

[www.wago.com/713-1110/033-047](http://www.wago.com/713-1110/033-047)




**Item no.713-1110/033-9037**

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; 20-pole; 1,50 mm<sup>2</sup>; black

[www.wago.com/713-1110/033-9037](http://www.wago.com/713-1110/033-9037)

#### Optional accessories

##### Coding

	<b>Item no.: 714-101</b> Coding key; orange	<a href="http://www.wago.com/714-101">www.wago.com/714-101</a>
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## Downloads

### Documentation

#### Additional Information

Technical explanations	2019 Apr 3	pdf 2.0 MB	Download
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## CAD/CAE-Data

### CAD data

2D/3D Models 713-1410	URL	Download
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### PCB Design

Symbol and Footprint 713-1410	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
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4

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- Zuken CR-5000 and CR-8000

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

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#### CAE data

ZUKEN Portal 713-1410	URL	Download
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## Environmental Product Compliance

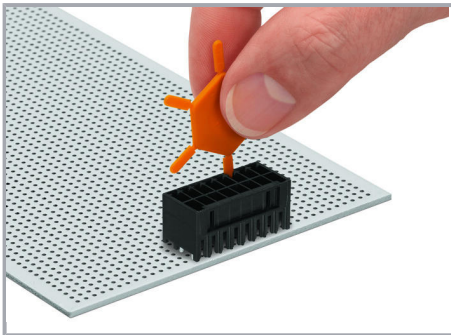
### Compliance Search

Environmental Product Compliance 713-1410 THT male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.5 mm; 20-pole; black	URL	Download
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## Installation Notes

### Coding



Coding a male header by inserting a coding pin.

## Product family

*MCS* MINI HD

[Show all products from the family](#)

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