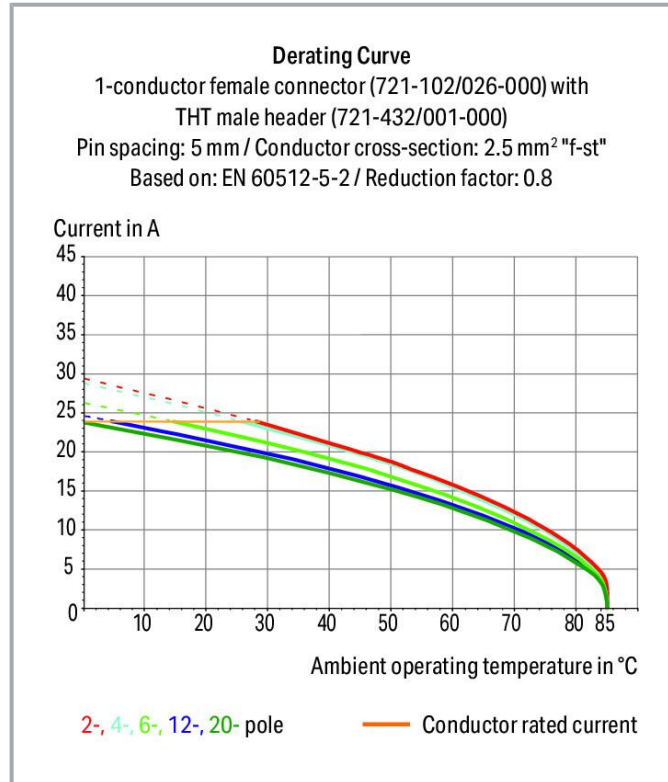


**Data sheet | Item number: 721-446/001-000**

THT male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Pin spacing 5 mm; 16-pole; light gray

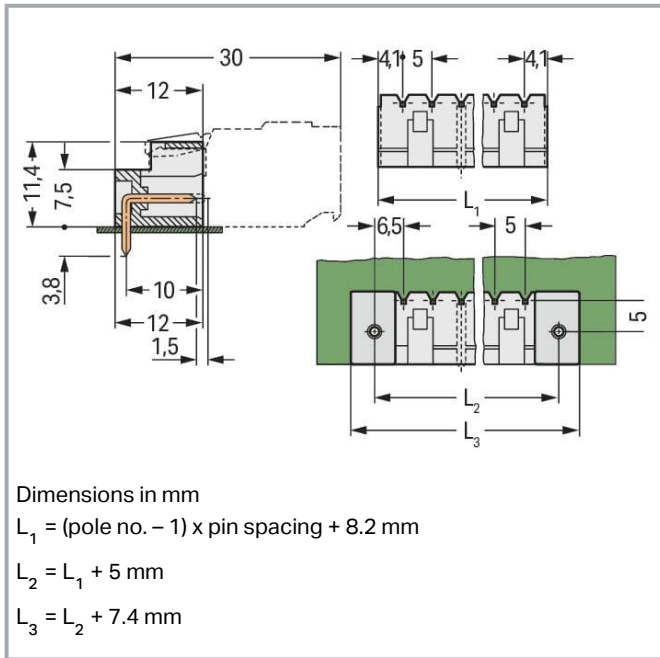
[www.wago.com/721-446/001-000](http://www.wago.com/721-446/001-000)



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

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## Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismatching
- With 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  
 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

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



### Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	320 V
Rated impulse voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated impulse voltage (III/2)	4 kV
Nominal voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
Rated current	12 A
Legend (ratings)	(III / 2) $\hat{=}$ 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 UL 1977

Rated voltage (UL 1977)	600 V
Rated current UL 1977	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	16
Number of connection types	1
Number of levels	1

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



## Connection 1

Pole number	16
-------------	----

## Physical data

Pin spacing	5 mm / 0.197 inches
Width	83.2 mm / 3.276 inches
Height	15.2 mm / 0.598 inches
Height from the surface	11.4 mm / 0.449 inches
Depth	12 mm / 0.472 inches
Solder pin length	3.8 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 <sup>(+0.1)</sup> 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	THT
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	light gray

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



Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	Tin
Fire load	0.092 MJ
Weight	5.1 g

### 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
ECCN	NO DATA
PU (SPU)	50 pcs
Packaging type	box
Country of origin	PL
GTIN	4044918869829
Customs tariff number	85366930000

### Environmental Product Compliance




RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------

### Approvals / Certificates


#### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CB DEKRA Certification B.V.	IEC 61984	NL-39756 /A1
	CSA DEKRA Certification B.V.	C22.2	1466354



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

	<b>KEMA/KEUR</b> DEKRA Certification B.V.	EN 61984	71- 121453
	<b>UL</b> Underwriters Laboratories Inc.	UL 1977	E45171
	<b>UL</b> Underwriters Laboratories Inc.	UL 1059	E45172



**Declarations of conformity and manufacturer's declarations**

Logo	Approval	Additional Approval Text	Certificate name
	<b>Railway</b> WAGO GmbH & Co. KG	-	Railway Ready

**Approvals for marine applications**

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

**Counterpart**

	<b>Item no.2721-116/026-000</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2,5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; 2,50 mm²; light gray	<a href="http://www.wago.com/721-116/026-000">www.wago.com/721-116/026-000</a>
	<b>Item no.2721-116/037-000</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2,5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; Lateral locking levers; 2,50 mm²; light gray	<a href="http://www.wago.com/721-116/037-000">www.wago.com/721-116/037-000</a>

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	<b>Item no.721-116/026-000</b> 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; 2,50 mm²; light gray	<a href="http://www.wago.com/721-116/026-000">www.wago.com/721-116/026-000</a>
	<b>Item no.721-116/037-000</b> 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; Lateral locking levers; 2,50 mm²; light gray	<a href="http://www.wago.com/721-116/037-000">www.wago.com/721-116/037-000</a>
	<b>Item no.722-216/026-000</b> 1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; 2,50 mm²; light gray	<a href="http://www.wago.com/722-216/026-000">www.wago.com/722-216/026-000</a>
	<b>Item no.2721-116/031-000</b> 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; clamping collar; 2,50 mm²; light gray	<a href="http://www.wago.com/2721-116/031-000">www.wago.com/2721-116/031-000</a>
	<b>Item no.721-116/027-000</b> 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; clamping collar; 2,50 mm²; light gray	<a href="http://www.wago.com/721-116/027-000">www.wago.com/721-116/027-000</a>
	<b>Item no.721-116/031-000</b> 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; clamping collar; 2,50 mm²; light gray	<a href="http://www.wago.com/721-116/031-000">www.wago.com/721-116/031-000</a>
	<b>Item no.721-2116/026-000</b> 2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; with integrated end plate; 2,50 mm²; light gray	<a href="http://www.wago.com/721-2116/026-000">www.wago.com/721-2116/026-000</a>
	<b>Item no.721-2116/037-000</b> 2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; Lateral locking levers; 2,50 mm²; light gray	<a href="http://www.wago.com/721-2116/037-000">www.wago.com/721-2116/037-000</a>
	<b>Item no.722-116/026-000</b> 1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching; 2,50 mm²; light gray	<a href="http://www.wago.com/722-116/026-000">www.wago.com/722-116/026-000</a>
	<b>Item no.2721-1116/326-000</b> 1-conductor female connector; lever; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching, coding finger; 2,50 mm²; light gray	<a href="http://www.wago.com/2721-1116/326-000">www.wago.com/2721-1116/326-000</a>
	<b>Item no.2721-1116/037-000</b> 1-conductor female connector; lever; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 100% protected against mismatching, coding finger; Lateral locking levers; 2,50 mm²; light gray	<a href="http://www.wago.com/2721-1116/037-000">www.wago.com/2721-1116/037-000</a>

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



## Optional accessories

### Coding

Coding



Item no.: 231-129

Coding key; snap-on type; light gray

[www.wago.com/231-129](http://www.wago.com/231-129)

### Marking accessories

Marking strip



Item no.: 210-833

Marking strips; 25 m on roll; 6 mm wide; plain; Self-adhesive; white

[www.wago.com/210-833](http://www.wago.com/210-833)



Item no.: 210-834

Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white

[www.wago.com/210-834](http://www.wago.com/210-834)

## Downloads

### Documentation

#### Additional Information

Technical Section Technical explanations	2019 Apr 3	pdf 2.1 MB	Download
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## CAD/CAE-Data

### CAD data

2D/3D Models 721-446/001-000	URL	Download
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### CAE data

EPLAN Data Portal 721-446/001-000	URL	Download
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ZUKEN Portal 721-446/001-000	URL	Download
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EPLAN Data Portal 721-446/001-000	URL	Download
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### PCB Design

Symbol and Footprint via Ultra Librarian 721-446/001-000	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:

—

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





- 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 721-446/001-000

[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:

- 3D (stp)
- Altium
- CADSTAR
- Capture

—  
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- CR-8000
- DEHDL
- DesignSpark PCB
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- 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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#### Asset Administration Shell

Asset Administration Shell 721-446/001-000	<a href="#">URL</a>	<a href="#">Download</a>
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#### Environmental Product Compliance

##### Compliance Search

Environmental Product Compliance 721-446/001-000	<a href="#">URL</a>	<a href="#">Download</a>
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THT male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Pin spacing 5 mm; 16-pole; light gray

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#### Installation Notes

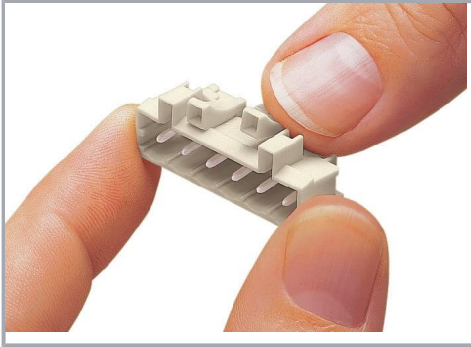
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### Coding



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

### Product family

**MCS MIDI**

[Show all products from the family](#)

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