1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 16-pole; 100% protected against mismating; 1,50 mm²; black



www.wago.com/713-1108





 $\label{thm:continuity} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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 $L = [(pole no./2) - 1] \times pin spacing + 5.2 mm$ 

Coding finger (red circle)

## Item description

- Universal connection for all conductor types
- Unique, compact, double-row connector system for conductor cross-sections up to 1.5 mm<sup>2</sup>
- High-density, wire-to-board connections in very confined spaces
- Centered strain relief plate anchors conductors, while acting as convenient connection and disconnection handle. It also provides easy access to operating slots even when wired.
- Coding fingers provide 100% protection against mismating

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

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# Data Notes

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.
Variants:	Other pole numbers 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**

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 C)	50 V
Rated current UL (Use Group C)	10 A
Approvals per	CSA
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A
Ratings per	IEC/EN 60664-1
Rated 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
Nominal voltage (II/2)	250 V
Rated surge voltage (II/2)	2.5 kV
Rated current	10 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

## Connection data

Total number of connection points	16	
Total number of potentials	16	
Number of connection types	1	
Number of levels	2	

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0.08 1.5 mm² / 28 16 AWG
Fine-stranded conductor	0.08 1.5 mm² / 28 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 1 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 1 mm²
Strip length	6 7 mm / 0.24 0.28 inch
Number of poles	16
Conductor entry direction to mating direction	0°

## Physical data

Pin spacing	3.5 mm / 0.138 inch
Width	29.5 mm / 1.161 inch
Height	18.8 mm / 0.74 inch
Depth	16 mm / 0.63 inch

# Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	Yes
Locking of plug-in connection	Without

### Material data

Color	black
Material group	II
Insulation material	Glass fiber-reinforced polyamide (PA66 GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	tin-plated
Fire load	0.123 MJ
Weight	8.2 g

# **Environmental requirements**

Limit temperature range	-60 +100 °C	

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### Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	25 Stück
Packaging type	box
Country of origin	PL
GTIN	4045454667351
Customs tariff number	8536694040

## Approvals / Certificates

#### **Country specific Approvals**

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



**CSA**DEKRA Certification B.V.

C22.2 2315087

#### **UL-Approvals**

			Certificate
Logo	Approval	Additional Approval Text	name
	UR	UL 1059	E45172



Underwriters Laboratories Inc.

## Counterpart



### Item no.713-1408/105-000/997-406

THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismating; in tapeand-reel packaging; Pin spacing 3.5 mm; 16-pole; black

www.wago.com/713-1408 /105-000/997-406



#### Item no.713-1408

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

www.wago.com/713-1408

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#### Item no.713-1408/105-000

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

www.wago.com/713-1408 /105-000



#### Item no.713-1428/105-000

THR male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismating; Pin spacing 3.5 mm; 16-pole; black

www.wago.com/713-1428 /105-000



#### Item no.713-1428

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

www.wago.com/713-1428



### Item no.713-1468

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

www.wago.com/713-1468



#### Item no.713-1428/105-000/997-406

THR male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismating; in tapeand-reel packaging; Pin spacing 3.5 mm; 16-pole; black

www.wago.com/713-1428 /105-000/997-406

## Optional accessories

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Operating	tool		
	Item no.: 210-647		
	Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured	www.wago.com/210-647	
/	Item no.: 210-719		
	Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft	www.wago.com/210-719	
errules			
Ferrule			
	Item no.: 216-101	/// // // // // // // // // // // // //	
	Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-101	
	Item no.: 216-102	/040 400	
	Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-102	
	Item no.: 216-103	1040,400	
	Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-103	
	Item no.: 216-123		
	Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-123	
	Item no.: 216-122		
	Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-122	
1	Item no.: 216-142		
	Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	www.wago.com/216-142	

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	<b>Item no.: 216-132</b> Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-132
1	Item no.: 216-121 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-121
1	Item no.: 216-143 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	www.wago.com/216-143
1	Item no.: 216-131 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-131
1	<b>Item no.: 216-141</b> Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	www.wago.com/216-141
1	<b>Item no.: 216-152</b> Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
	Item no.: 216-203 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	<b>Item no.: 216-202</b> Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
1	<b>Item no.: 216-151</b> Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	<b>Item no.: 216-223</b> Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
ı	Item no.: 216-241 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	www.wago.com/216-241
ı	<b>Item no.: 216-242</b> Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-242
À	<b>Item no.: 216-222</b> Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
l	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Item no.: 216-243 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-243
	Item no.: 216-263 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-263
1	Item no.: 216-262	

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Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight www.wago.com/216-262 crimped; acc. to DIN 46228, Part 4/09.90; gray Item no.: 216-301 www.wago.com/216-301 Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow Item no.: 216-321 www.wago.com/216-321 Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow Item no.: 216-322 www.wago.com/216-322 Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; green Item no.: 216-302 www.wago.com/216-302 Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; green Strain relief Strain relief plate Item no.: 713-127 www.wago.com/713-127 Strain relief plate; black **Downloads Documentation Additional Information** Technical explanations Apr 3, 2019 pdf Download 2.0 MB **CAD files CAE** data

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CAD data

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# **Environmental Product Compliance**

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16-pole; 100% protected against mismating; 1,50 mm<sup>2</sup>; black

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

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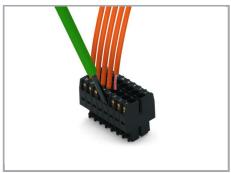
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### **Installation Notes**

## Conductor termination

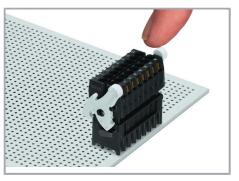


Inserting a conductor via  $(2.5 \times 0.4)$  mm screwdriver.

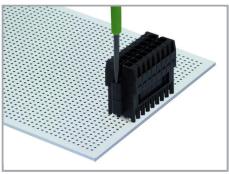
## Locking system



Lever as a lock – when closed, female connector is locked.



Lever as a disconnection aid – when opened, female connector is disconnected. Rotating the lever lifts the female connector out of the male header.



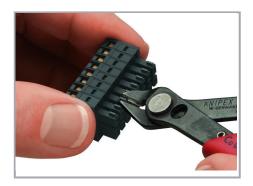
Screw interlock can only be disconnected using a tool.

## Coding

 $\label{thm:continuity} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

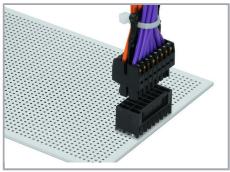
www.wago.com/713-1108





Coding a female connector by removing coding finger(s).

## Installation



Centered strain relief plate anchors conductors for easy disconnection.

# **Product family**

MCS MINI HD
Show all products from the family

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$