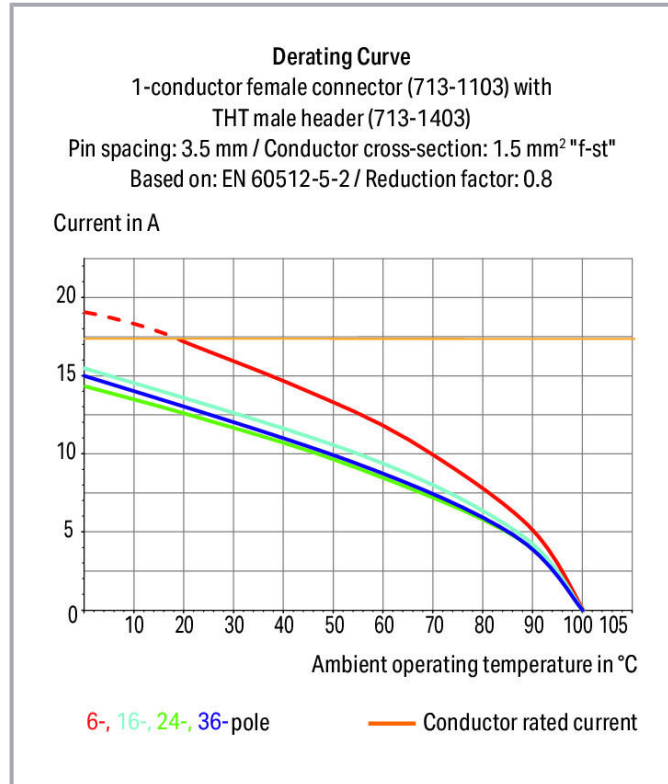
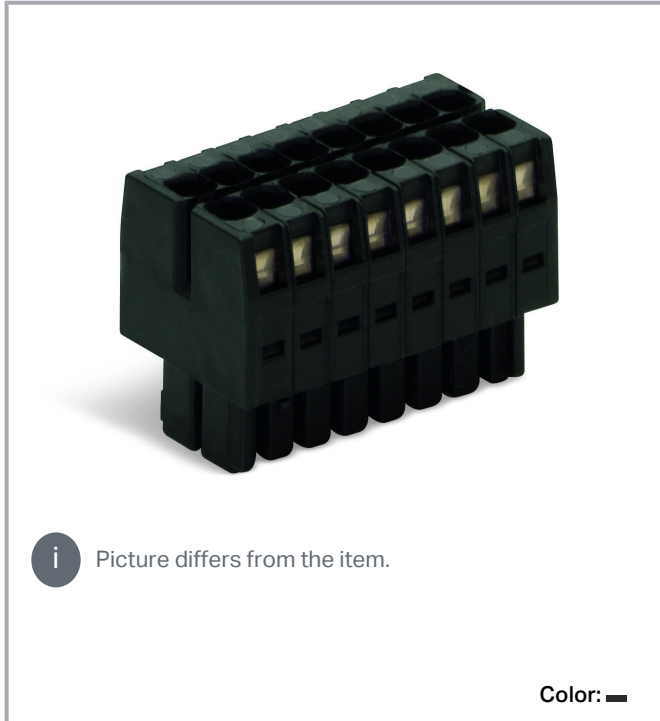


Data sheet | Item number: 713-1110

1-conductor female connector, 2-row; 100% protected against mismatching;
1.5 mm²; Pin spacing 3.5 mm; 20-pole; 1,50 mm²; black



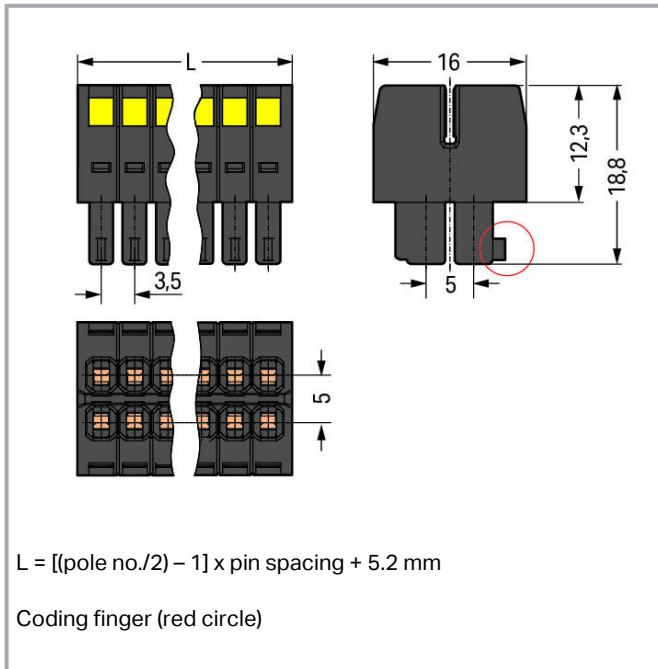
www.wago.com/713-1110



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

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Item description

- Universal connection for all conductor types
- Unique, compact, double-row connector system for conductor cross-sections up to 1.5 mm²
- 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 mismatching

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

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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

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 C)	50 V
Rated current UL (Use Group C)	10 A

Ratings per CSA

Approvals per	CSA
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A

Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0.08 ... 1.5 mm ² / 28 ... 16 AWG
Fine-stranded conductor	0.08 ... 1.5 mm ² / 28 ... 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1 mm ²
Strip length	6 ... 7 mm / 0.24 ... 0.28 inch
Pole No.	20
Total number of connection points	20
Total number of potentials	20
Number of connection types	1
Number of levels	2
Conductor entry direction to mating direction	0°

Physical data

Pin spacing	3.5 mm / 0.138 inch
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Subject to changes. Please also observe the further product documentation!



Width	36.5 mm / 1.437 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	0.151 MJ
Weight	10.2 g

Environmental requirements

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

Commercial data

Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	PL
GTIN	4045454667375
Customs tariff number	85366990990

Approvals / Certificates



Country specific Approvals

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


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	CCA DEKRA Certification B.V.	EN 61984	2169947.01
	CSA DEKRA Certification B.V.	C22.2	2315087

UL-Approvals

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

Counterpart

	Item no.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
	Item no.713-1410/105-000/997-407 THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 20-pole; black	www.wago.com/713-1410/105-000/997-407
	Item no.713-1430 THT male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.5 mm; 20-pole; black	www.wago.com/713-1430
	Item no.713-1410/105-000 THR 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/713-1410/105-000
	Item no.713-1430/105-000 THR male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.5 mm; 20-pole; black	www.wago.com/713-1430/105-000
	Item no.713-1430/105-000/997-407 THR male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 20-pole; black	www.wago.com/713-1430/105-000/997-407
	Item no.713-1470 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/713-1470

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

Optional accessories

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

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

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-102



Item no.: 216-103

Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

www.wago.com/216-103



Item no.: 216-121

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-121



Item no.: 216-122

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-122



Item no.: 216-123

Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-123



Item no.: 216-131

Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-131



Item no.: 216-132

Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

www.wago.com/216-132



Item no.: 216-141

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



Item no.: 216-142

Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

www.wago.com/216-142



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



Item no.: 216-151

Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated

www.wago.com/216-151



Item no.: 216-152

Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

www.wago.com/216-152



Item no.: 216-201

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

www.wago.com/216-201

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

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	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	www.wago.com/216-241
	Item no.: 216-242 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-242
	Item no.: 216-243 Ferrule; Sleeve for 1 mm ² / 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.: 216-262 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-262
	Item no.: 216-263 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-263
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-302
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-322
Strain relief		
	Item no.: 713-127 Strain relief plate; black	www.wago.com/713-127

Downloads

Documentation

Additional Information

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

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Technical explanations

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CAD/CAE-Data

CAD data

2D/3D Models 713-1110

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CAE data

ZUKEN Portal 713-1110

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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 713-1110

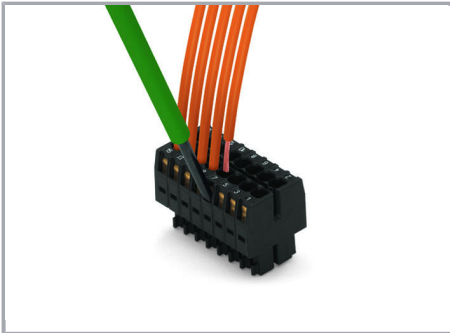
[URL](#)

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1-conductor female connector, 2-row; 100% protected against mismatching; 1.5 mm²;
Pin spacing 3.5 mm; 20-pole; 1,50 mm²; black

Installation Notes

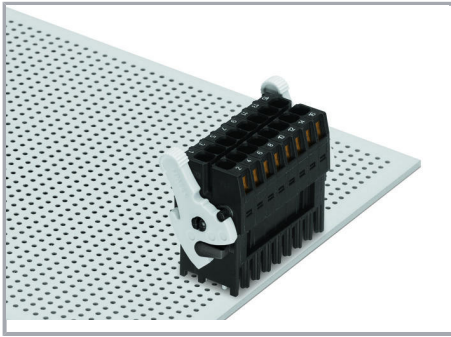
Conductor termination



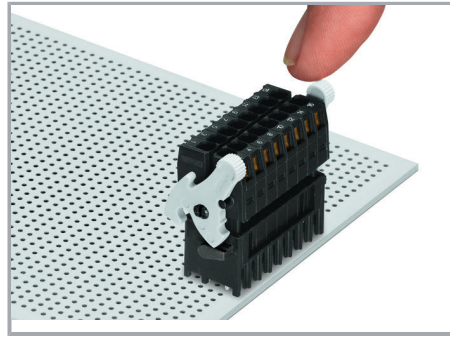
Inserting a conductor via (2.5 x 0.4) mm
screwdriver.

Locking lever

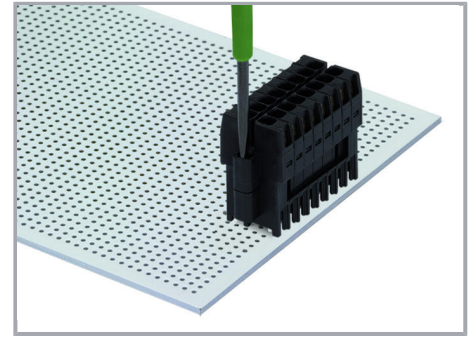
Subject to changes. Please also observe the further product documentation!



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

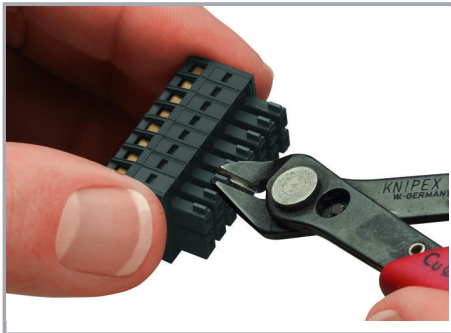


Lever as a disconnection aid – when opened, female connector is disconnected. Rotating the lever lifts the female connector out of the male header.



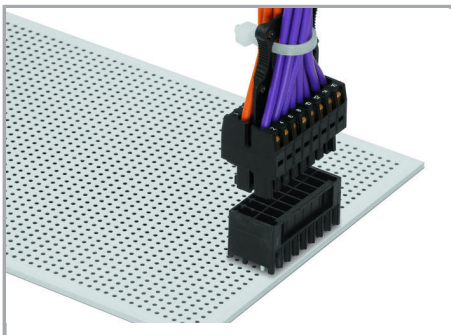
Screw interlock can only be disconnected using a tool.

Coding



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

Installation



Centered strain relief plate anchors conductors for easy disconnection.

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

Data sheet | Item number: 713-1110

www.wago.com/713-1110



Product family

MCS MINI HD

[Show all products from the family](#)

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