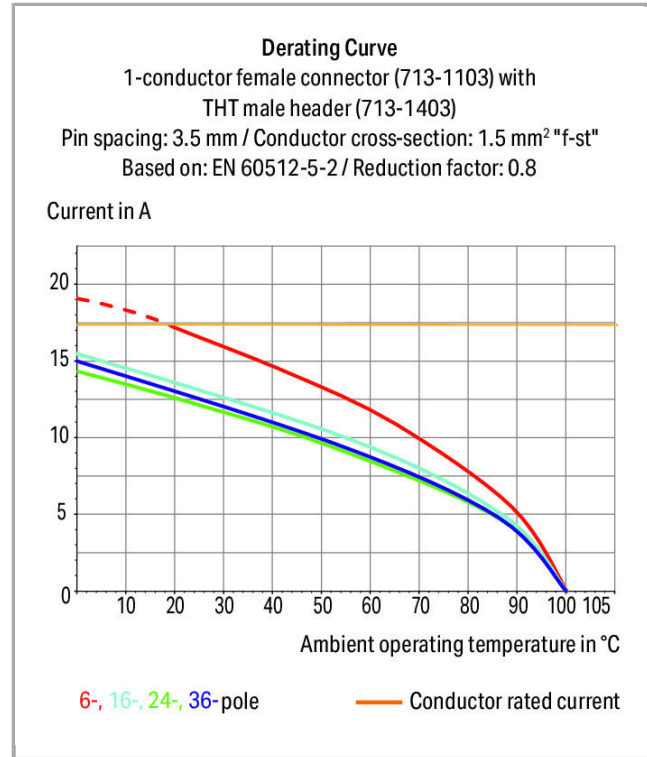


Data sheet | Item number: 713-1110

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

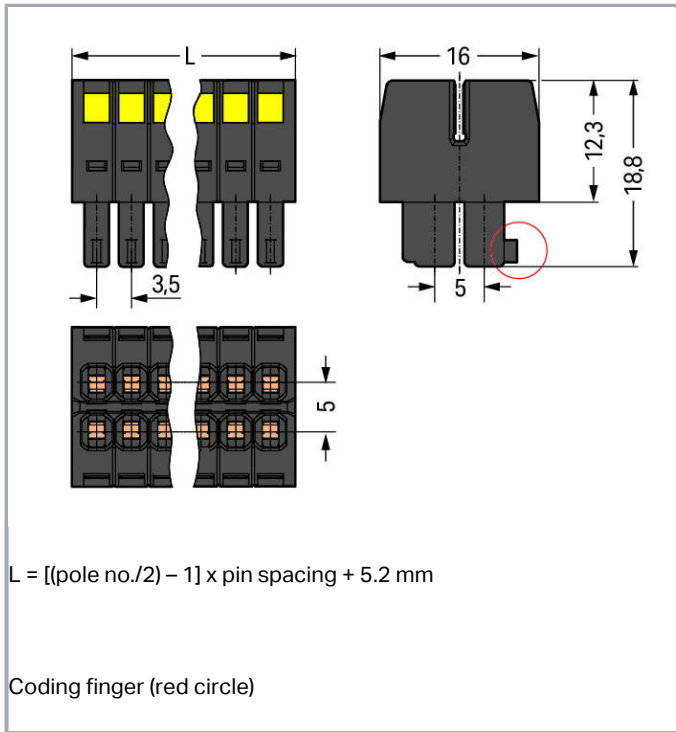
www.wago.com/713-1110



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
- Optional dual-purpose lever doubles as a lock and disconnection aid, while preventing accidental disconnection in closed position
- Coding fingers provide 100 % protection against mismatching

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

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



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
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)	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	UL 1059

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 ferrule with plastic collar	0,25 ... 1 mm ²
Fine-stranded conductor with ferrule without plastic collar	0,25 ... 1 mm ²
Strip length	6 ... 7 mm / 0.24 ... 0.28 inch
No. of poles	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°

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



Geometrical Data

Pin spacing	3,5 mm / 0.138 inch
Width	36,5 mm / 1.437 inch
Height	18,8 mm / 0.74 inch
Depth	16 mm / 0.63 inch

Plug connection

Contact type (pluggable connector)	Female connector/socket
Connector connection type	for conductors
Mismating protection	Yes

Material Data

Color	black
Material group	II
Insulating material	Glass fiber-reinforced polyamide (PA 66 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 No.	85366990990

Approvals / Certificates



Country specific Approvals

Certificate


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

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Logo	Approval	Additional Approval Text	name
	CCA DEKRA Certification B.V.	IEC 61984	NL-30980
	CCA DEKRA Certification B.V.	EN 61984	2169947.01
	CSA DEKRA Certification B.V.	C22.2 No. 158	2315087

UL-Approvals

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

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; 2 x 10-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; 2 x 10-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; 2 x 10-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; 2 x 10-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; 2 x 10-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; 2 x 10-pole; black	www.wago.com/713-1430/105-000/997-407

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

**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; 2 x 10-pole; black

www.wago.com/713-1470**Compatible products****tools****Item no.: 210-647**

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

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

www.wago.com/216-101**Item no.: 216-102**

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

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

www.wago.com/216-121**Item no.: 216-122**

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

www.wago.com/216-122**Item no.: 216-123**

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

www.wago.com/216-123**Item no.: 216-131**

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

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

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

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	Item no.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151
	Item no.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	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 plate

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

Item no.: 713-127
Strain relief plate; black

www.wago.com/713-127

Downloads

Documentation

Additional Information

Technical explanations	Apr 3, 2019	pdf 3.6 MB	Download
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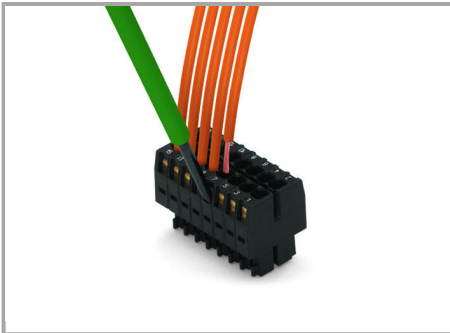
CAD/CAE-Data

CAD data

2D/3D Models 713-1110	URL	Download
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Installation Notes

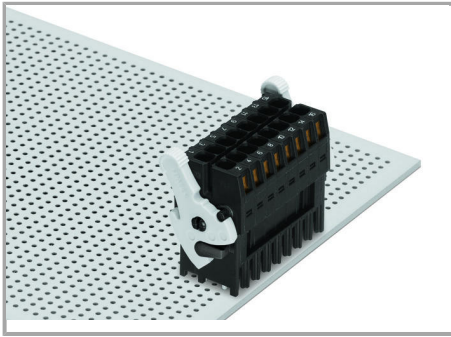
Inserting a conductor



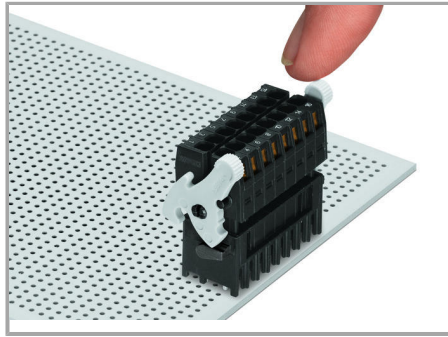
Inserting a conductor via (2.5 x 0.4) mm screwdriver.

Locking

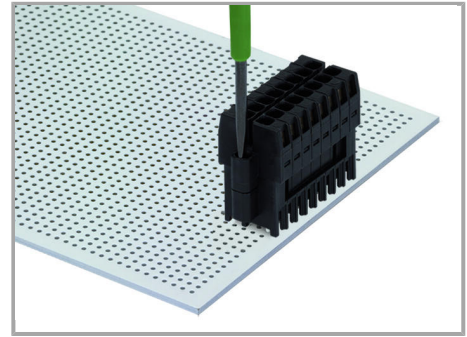
Subject to changes. Please also observe the further product documentation!



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



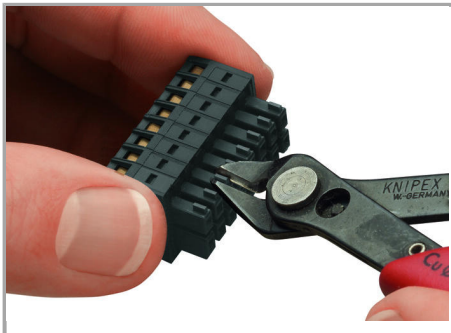
Lever as a disconnection aid – when opened, female connector is disconnected.



Screw interlock can only be disconnected using a tool.

Rotating the lever lifts the female connector out of the male header.

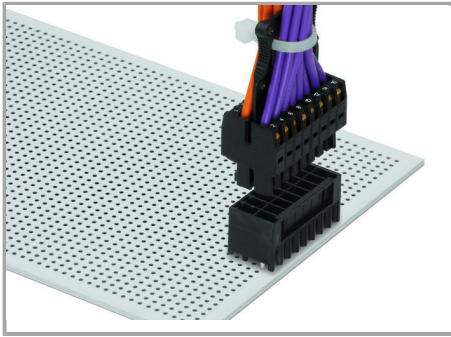
Coding



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

Assembly

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



Centered strain relief plate anchors
conductors for easy disconnection.

Product family

MCS MINI HD

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

[Show all products from the family](#)

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