

# Data Sheet | Item Number: 713-1109/107-9037/033-000

1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 18-pole; 100% protected against mismatching; Screw flange; Strain relief plate; direct marking; 1,50 mm²; black

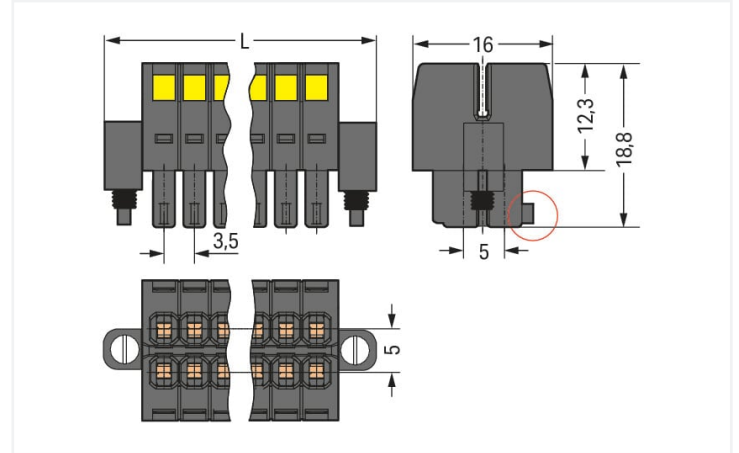


<https://www.wago.com/713-1109/107-9037/033-000>



Color: ■ black

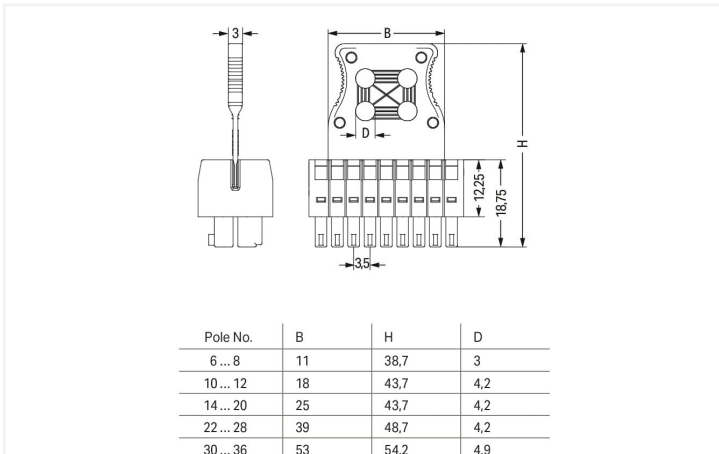
Similar to illustration



Dimensions in mm

$L = [(pole\ no./2) - 1] \times pin\ spacing + 13.6\ mm$

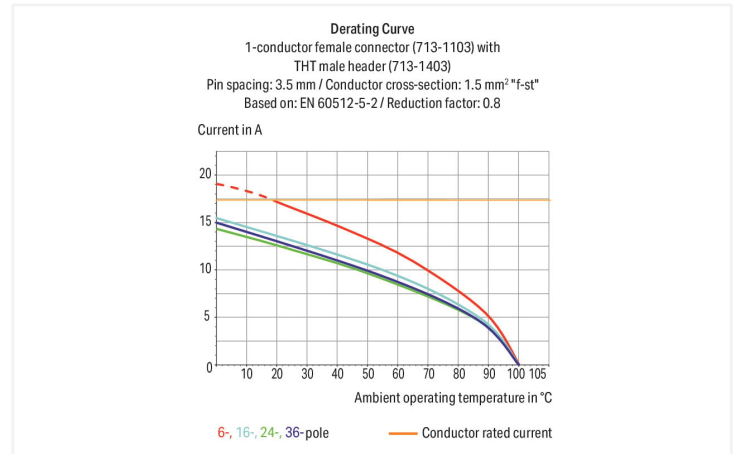
Coding finger (red circle)



Dimensions in mm

The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.



- 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

## 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  
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

Ratings per		IEC/EN 60664-1			Approvals per		UL 1059		
Overvoltage category		III	III	II	Use group	B	C	D	
Pollution degree		3	2	2	Rated voltage	300 V	50 V	-	
Nominal voltage		80 V	160 V	250 V	Rated current	10 A	10 A	-	
Rated surge voltage		2.5 kV	2.5 kV	2.5 kV					
Rated current		10 A	10 A	10 A					

Approvals per		CSA		
Use group		B	C	D
Rated voltage		300 V	-	-
Rated current		10 A	-	-

## Connection data

Connection points	18	<b>Connection 1</b>		
Total number of potentials	18	Connection technology	CAGE CLAMP®	
Number of connection types	1	Actuation type	Operating tool	
Number of levels	2	Actuation direction 1	Operation perpendicular to conductor entry	
		Solid conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG	
		Fine-stranded conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG	
		Fine-stranded conductor; with insulated ferrule	0.25 ... 1 mm <sup>2</sup>	
		Fine-stranded conductor; with uninsulated ferrule	0.25 ... 1 mm <sup>2</sup>	
		Strip length	6 ... 7 mm / 0.24 ... 0.28 inches	
		Pole number	18	
		Conductor entry direction to mating direction	0°	

## Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	41.6 mm / 1.638 inches
Height	43.7 mm / 1.72 inches
Depth	16 mm / 0.63 inches

### Mechanical data

Variable coding	Yes
Anti-rotation protection	Yes

### Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	Yes
Locking of plug-in connection	Screw flange
Strain relief	Strain relief plate

### Material data

Note (material data)	<a href="https://www.wago.com/us/material-specifications">Information on material specifications can be found here</a>
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
Fire load	0.169 MJ
Weight	10.7 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	27-14-11-06
eCl@ss 9.0	27-14-11-06
ETIM 8.0	EC001284
ETIM 7.0	EC001284
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	PL
GTIN	4050821178170
Customs tariff number	85366990990

### Environmental Product Compliance

CAS-No.	131651-65-5 144317-44-2 220133-51-7 220689-12-3 25628-08-4 29420-49-3 375-73-5 503155-89-3 507453-86-3 68259-10-9
REACH Candidate List Substance	Perfluorobutane sulfonic acid (PFBS) and its salts
RoHS Compliance Status	Compliant,With Exemption

**Environmental Product Compliance**

RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	165d9b63-fa35-40ab-8c85-de27e5073a89
SCIP notification number (Belgium)	8c107443-e8d3-45ff-802b-50f0ee05c826
SCIP notification number (Bulgaria)	74abdf4-ee4d-49bf-b22f-f9ed5f7101c0
SCIP notification number (Czech Republic)	716f82df-45df-419c-90e1-c6751fb117b2
SCIP notification number (Denmark)	fb2d4c4a-eff2-4e83-ae73-2b57e588d6fb
SCIP notification number (Finland)	29db43c9-230c-400a-8aa2-4a88eea56d1e
SCIP notification number (France)	9d16544c-4041-4460-9e46-4092cb4f52b4
SCIP notification number (Germany)	54fcee57-9327-4540-895a-d0f61abb6d3b
SCIP notification number (Hungary)	87f52421-0770-464e-b42d-29523fe98bd4
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SCIP notification number (Poland)	1166a615-6c63-431e-a206-e8d45193011c
SCIP notification number (Romania)	fe2aa507-2c0c-4770-b268-b3ea0ca51c6b
SCIP notification number (Sweden)	b8c90766-3110-405e-8181-238ef89d55cf

**Approvals / Certificates**

**General approvals**



Approval	Standard	Certificate Name
UR Underwriters Laboratories Inc.	UL 1059	E45172

**Downloads**

**Environmental Product Compliance**

Compliance Search	↓
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**Documentation**

<b>Additional Information</b>			
Technical Section	03.04.2019	pdf 2010.85 KB	↓

## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Male connector/plug



**Item No.: 713-1429/107-000**

THT male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Threaded flange; Pin spacing 3.5 mm; 18-pole; black

**Item No.: 713-1409/107-000**

THT male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Threaded flange; Pin spacing 3.5 mm; 18-pole; black

## 1.2 Optional Accessories

### 1.2.1 Ferrule

#### 1.2.1.1 Ferrule



**Item No.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-321**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-151**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-131**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-322**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-132**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-152**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item No.: 216-241**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-221**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



**Item No.: 216-141**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



**Item No.: 216-101**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-121**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-242**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-262**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-202**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-222**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**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



**Item No.: 216-102**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-122**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-243**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-263**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-203**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-223**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-103**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated



**Item No.: 216-143**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



**Item No.: 216-123**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored

## 1.2.2 Stickers with operating instructions

### 1.2.2.1 Stickers with operating instructions



**Item No.: 210-493**

Stickers for operating instructions

## 1.2.3 Strain relief

### 1.2.3.1 Strain relief plate



**Item No.: 713-127**

Strain relief plate; for female connectors; 25 mm wide; 1 part; Pin spacing 3.5 mm; black

## 1.2.4 Tool

### 1.2.4.1 Operating tool



**Item No.: 210-719**

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

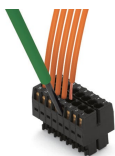


**Item No.: 210-647**

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

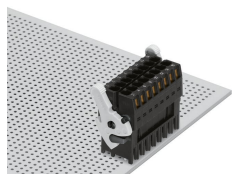
## Installation Notes

### Conductor termination

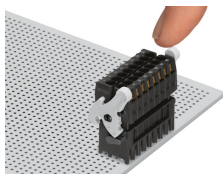


Inserting a conductor via (2.5 x 0.4) mm screwdriver.

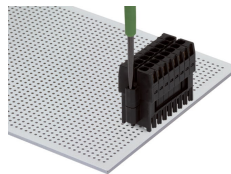
### Locking system



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

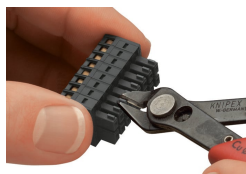


Lever as a disconnection aid – when opened, female connector is disconnected. Rotating the lever lifts the female connector out of the male header.



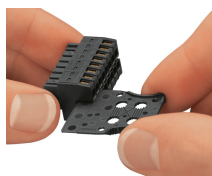
Screw interlock can only be disconnected using a tool.

## Coding

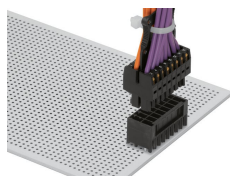


Coding a female connector by removing coding finger(s).

## Strain relief



Strain relief plate for field assembly



Centered strain relief plate anchors conductors for easy disconnection.