

Data Sheet | Item Number: 713-1109

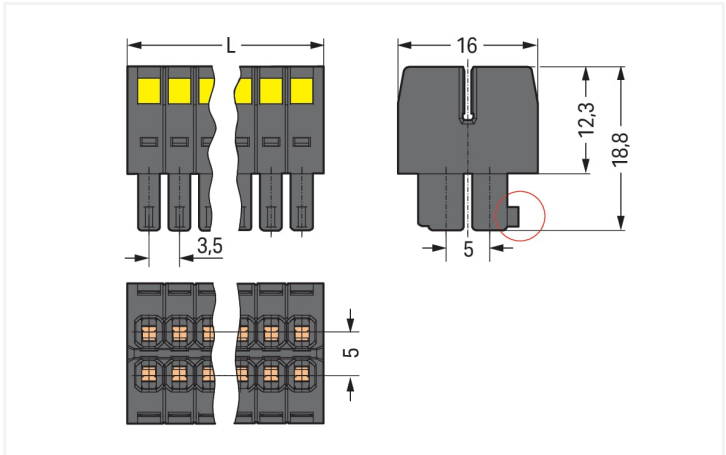
1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 18-pole; 100% protected against mismatching; 1,50 mm²; black

<https://www.wago.com/713-1109>

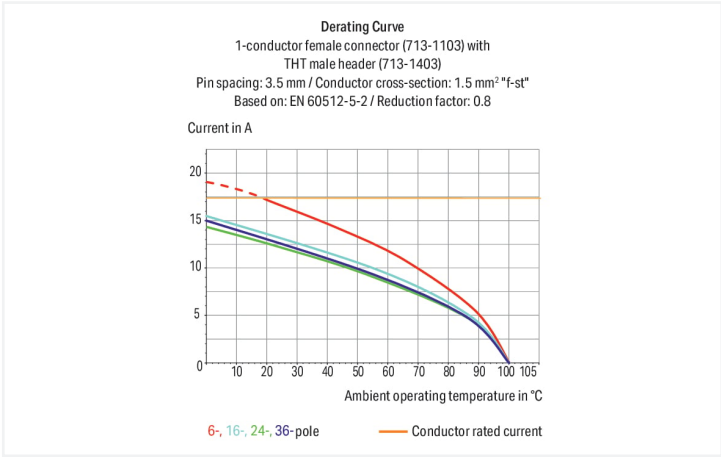


Color: ■ black

Similar to illustration



Dimensions in mm
 $L = [(pole\ no./2) - 1] \times pin\ spacing + 5.2\ mm$
Coding finger (red circle)



Federleiste/Buchse Serie 713 mit 0 ° Leiterabgang zur Steckrichtung

Die Federleiste/Buchse mit der Artikelnummer 713-1109 ermöglicht eine fehlerfreie Elektroinstallation. Mit unseren Leiterplatten-Steckverbindern erhalten Sie ein ganzheitliches Steckverbindersystem, das vielseitig Verwendung finden kann: als Leiterplatten-Steckverbinder, als Durchführungssteckverbinder, als fliegende Steckverbindung für verschiedene Montagearten oder als Steckverbinder auf Reihenklemmen. Für den Leiteranschluss werden bei dieser Federleiste/Buchse Abisolierlängen von 6 bis 7 mm benötigt. Bei diesem Produkt kommt die CAGE CLAMP®-Technologie zum Tragen. Der zuverlässige und wartungsfreie CAGE CLAMP® Universalanschluss bietet die Möglichkeit, alle Arten von Leitern mit einer Käfigzugfeder anzuschließen, ohne, dass eine Vorbehandlung der Leiter erforderlich ist. Das Aufcrimpen von Aderendhülsen kann somit entfallen. Die Maße sind in Breite x Höhe x Tiefe (33 x 18,8 x 16) mm. In Abhängigkeit von der Leiterart ist die Federleiste/Buchse für Leiterquerschnitte von 0,08 mm² bis 1,5 mm² gemacht. Die Kontaktoberfläche besteht aus Zinn. Diese Federleiste/Buchse wird durch ein Betätigungswerkzeug betätigt. Das MCS – "Multi Connection System" von WAGO ist ein vielfältiges Steckverbindersystem für Ihre durchgängige Systemverdrahtung. Es ermöglicht Ihnen eine vereinfachte Verdrahtung in der Kabelvorkonfektionierung und auf Geräten durch zwei Betätigungsrichtungen für die CAGE CLAMP®-Varianten.

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

Clamping units	18	Connection 1	
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 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 inches
		Pole number	18
		Conductor entry direction to mating direction	0°

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	33 mm / 1.299 inches
Height	18.8 mm / 0.74 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



Material data		
Note (material data)		Information on material specifications can be found here
Color	black	
Material group	II	
Insulation material (main housing)	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	0.137 MJ	
Weight	9.2 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 9.0	EC001284	
ETIM 8.0	EC001284	
PU (SPU)	25 pcs	
Packaging type	Box	
Country of origin	PL	
GTIN	4045454667368	
Customs tariff number	85366990990	

Environmental Product Compliance		
RoHS Compliance Status	Compliant, No Exemption	

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
  					
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-102427	Railway WAGO GmbH & Co. KG	-	Z00004422.000
CSA CSA Group	C22.2	2315087			
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-133740			
UL Underwriters Laboratories Inc.	UL 1059	UL-US-L45172-6187124-22905991-1			



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 713-1109

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Documentation

Additional Information

Technical Section

03.04.2019

pdf

2027.26 KB

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CAD/CAE-Data

CAD data

2D/3D Models 713-1109

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CAE data

ZUKEN Portal 713-1109

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1 Compatible Products

1.1 System counterpart

1.1.1 Male connector/plug



Item No.: [713-1429/105-000/997-407](#)
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; 18-pole; black



Item No.: [713-1429/105-000](#)
THR male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.5 mm; 18-pole; black



Item No.: [713-1409/105-000/997-407](#)
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; 18-pole; black



Item No.: [713-1409/105-000](#)
THR male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.5 mm; 18-pole; black



Item No.: [713-1429](#)
THT male header, 2-row; 0.8 x 0.8 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.5 mm; 18-pole; black



Item No.: [713-1409](#)
THT male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.5 mm; 18-pole; black



Item No.: [713-1469](#)
THT male header, 2-row; 0.8 x 0.8 mm solder pin; straight; 100% protected against mismatching; with orientation nose; 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 mm² / AWG 24; insulated; electro-tin plated; yellow



Item No.: [216-321](#)
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



Item No.: [216-131](#)
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored



Item No.: [216-302](#)
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



1.2.1.1 Ferrule

 Item No.: 216-322 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise	 Item No.: 216-132 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	 Item No.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white	 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
 Item No.: 216-221 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	 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	 Item No.: 216-101 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-121 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored
 Item No.: 216-242 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	 Item No.: 216-262 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	 Item No.: 216-202 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	 Item No.: 216-222 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray
 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	 Item No.: 216-102 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-122 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	 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
 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	 Item No.: 216-203 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red	 Item No.: 216-223 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red	 Item No.: 216-103 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated
 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	 Item No.: 216-123 Ferrule; Sleeve for 1 mm² / 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

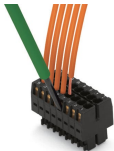


Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Item No.: 210-647
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

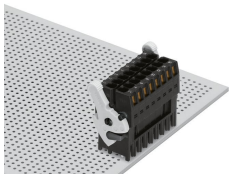
Installation Notes

Conductor termination

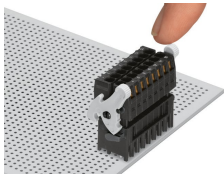


Inserting a conductor via (2.5 x 0.4) mm screwdriver.

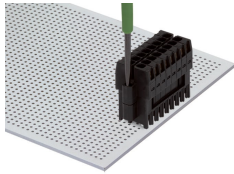
Locking system



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

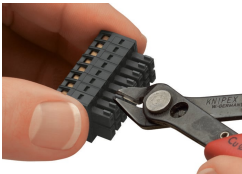


Lever as a disconnection aid – when opened, female connector is disconnected. Rotating the lever lifts the female connector out of the male header.



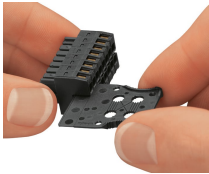
Screw interlock can only be disconnected using a tool.

Coding

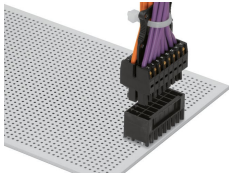


Coding a female connector by removing coding finger(s).

Strain relief



Strain relief plate for field assembly



Centered strain relief plate anchors conductors for easy disconnection.