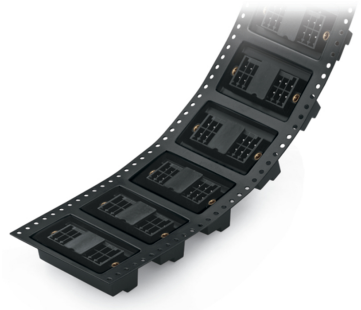
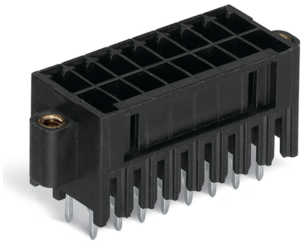
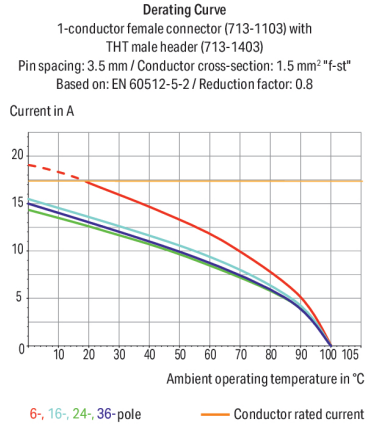
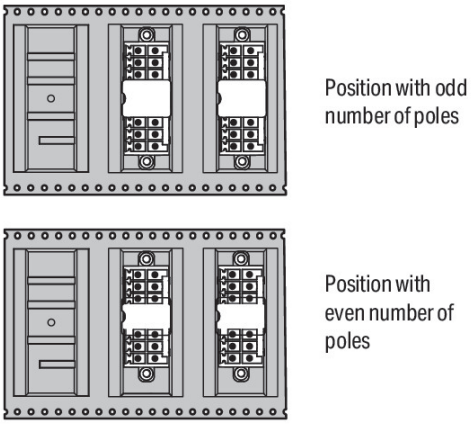


Color: ■ black

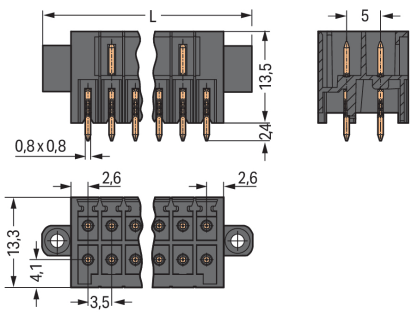


Similar to illustration

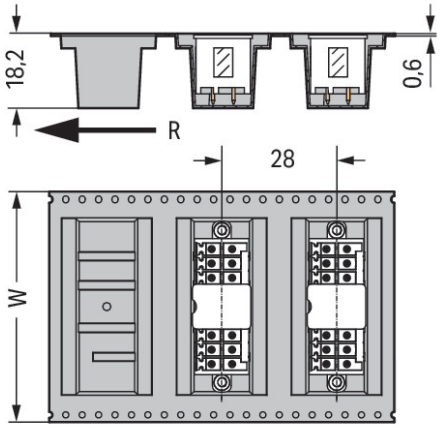




Dimensions in mm
Pin position in tape-and-reel packaging



Dimensions in mm
L = [(pole no./2) – 1] x pin spacing + 13.6 mm



Dimensions in mm
W = tape widthR = feed direction

Male connector, 713 Series, black

This male connector (item number 713-1404/117-000/997-406) simplifies electrical installations. The item's dimensions are (24.1 x 15.9 x 13.3) mm (width x height x depth).

The contact surface is coated with tin. THR is used to assemble the pcb connector.

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 Other solder pin lengths 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		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	80 V	160 V	250 V
Rated impulse withstand voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	150 V	50 V	-
Rated current	10 A	10 A	-

Approvals per	CSA		
Use group	B	C	D
Rated voltage	150 V	-	-
Rated current	12 A	-	-

Connection Data

Total number of potentials	8
Number of connection types	1
Number of levels	2

Connection 1

Pole number	8

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	24.1 mm / 0.949 inches
Height	15.9 mm / 0.626 inches
Height from the surface	13.5 mm / 0.531 inches
Depth	13.3 mm / 0.524 inches
Solder pin length	2.4 mm
Solder pin dimensions	0.8 x 0.8 mm
Plated through-hole diameter (THR)	1.3 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm
Tape width	44 mm

 Continued on next page

Mechanical data

Variable coding	Yes
Anti-rotation protection	Yes

Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
Mismating protection	Yes
Mating direction to the PCB	90 °
Locking of plug-in connection	Threaded flange

PCB contact

PCB contact	THR
Solder pin arrangement	over the entire male connector (in-line)
Number of solder pins per potential	1

Material data

Note (material data)	Information on material specifications can be found here
Color	black
Material group	I
Insulation material (main housing)	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E_{Cu})
Contact Plating	Tin
Fire load	0.062 MJ
Weight	2.8 g
MSL per J-STD 020D	1

Environmental requirements

Limit temperature range	-60 … +100 °C
Processing temperature	-35 … +60 °C

Environmental Testing

Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B
Functional test with noise-like oscillations	Test passed according to Section 8 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 Hz
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h

 Continued on next page

Environmental Testing

Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

Commercial data

PU (SPU)	120 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4050821308829
Customs tariff number	85366930000

Product Classification

UNSPSC	39121409
eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 9.0	EC002637
ETIM 10.0	EC002637
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c)
SCIP notification number (Austria)	2ac7bbec-6168-4d33-8a8b-b926af8a0cfb
SCIP notification number (Belgium)	65db2ae0-3daf-44d4-b9da-f82879872219
SCIP notification number (Bulgaria)	7b0fa605-beb3-4836-ba47-1fc8d3ce7dce
SCIP notification number (Czech Republic)	b5c439b3-3d23-4e92-b771-e49fd1cdcd21
SCIP notification number (Denmark)	f7a1a528-1807-4300-8bbd-c6db7aba43b0
SCIP notification number (Finland)	f213105b-c0be-4191-a23d-9c80190e8cb0
SCIP notification number (France)	b8637a76-e63b-46e1-8ed4-5bdf6ec40bf2
SCIP notification number (Germany)	1b47faf2-ddbe-47a3-8beb-d439689f88d5
SCIP notification number (Hungary)	c6a91997-d0fe-4c97-a8e9-e775f386a451
SCIP notification number (Italy)	5a6c594b-b022-4274-bf72-3d5c7c7ebf10
SCIP notification number (Netherlands)	005b81b5-177b-4374-9a8b-137814ff6462
SCIP notification number (Poland)	8a4d8cfb-5946-47fd-b014-5e2f24b76f32
SCIP notification number (Romania)	f28c47e5-dc8f-4e0d-9e3a-2ffefe2f1461
SCIP notification number (Sweden)	b25582a8-18eb-4526-9a15-098960e4c2d7

Continued on next page

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-102427
CSA CSA Group	C22.2	2315087
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-133740

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
Railway WAGO GmbH & Co. KG	-	Z00004424.000

Downloads

Environmental Product Compliance

Compliance Search

Documentation

Additional Information

Technical Section	03.04.2019	pdf 2027.26 KB
		pdf 535.32 KB

CAD/CAE-Data

CAD data

PCB Design

1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket

Item No.: 713-1104/107-000
1-conductor female connector, 2-row; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 8-pole; 100% protected against mismating; Screw flange; black

1.2 Optional Accessories

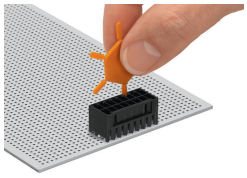
1.2.1 Coding

1.2.1.1 Coding

Item No.: 714-101
Coding key; orange

Installation Notes

Coding



Coding a male header by inserting a coding pin.