

# SACC-PO12MSD-4CT-CL SH PN - Data connector



1177521

<https://www.phoenixcontact.com/pc/products/1177521>

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Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug straight M12 Push-Pull, coding: D, Crimp connection, knurl material: PA 6.6, external cable diameter 6.5 mm ... 10 mm, without crimp contacts

## Your advantages

- Plug and Produce: convenient and secure connection, thanks to the manufacturer-independent locking system
- Extremely compact, thanks to the small wiring space and high contact density
- Clear feedback: the connector springs back when not snapped into place correctly
- Safely shielded: reliable shield connection even under extreme mechanical strain
- Robust connection: suitable for railway applications with high shock and vibration loads

## Commercial data

Item number	1177521
Packing unit	1 pc
Minimum order quantity	100 pc
Note	Made to order (non-returnable)
Product key	BF2CJN
GTIN	4063151210694
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85366990
Country of origin	DE

## Technical data

### Notes

General	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.2 Connectors for Outside Environment (Balanced cabling)
General	<b>NOTE:</b> Observe the permissible bending radii when laying conductors, since the degree of protection may be put in jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties.

### Mounting

Assembly instructions	Contacts can be clipped in place and unclipped without tools
Connection method	Crimp connection

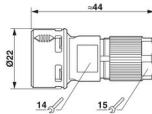
### Product properties

Product type	Circular connector (cable-side)
Sensor type	PROFINET
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	D
Cable outlet	straight

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Dimensions

Dimensional drawing	
Length	44 mm
Wrench size, union nut	15 mm
Wrench size, counter nut	14 mm

### External dimensions

Outside diameter	6.5 mm ... 10 mm
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### Housing

Diameter housing	22 mm
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### Material specifications

Flammability rating according to UL 94	V0
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Seal material	NBR
Material of grip body	Zinc die-cast, nickel-plated
Contact carrier material	PA 6.6
Material for screw connection	PA 6.6
Standards/regulations	PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)

## Connection data

### Conductor connection

Connection method	Crimp connection
Connection cross section	0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup> (flexible)
Connection cross section AWG	26 ... 18 (flexible)
Stripping length of the individual wire	4 mm +0,5 mm
Tightening torque	4 Nm
	4 Nm (Pressure nut with coupling sleeve)

## Electrical properties

Rated surge voltage	2.5 kV
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	4 A

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	≥ 100
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## Connector

### Connection 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Head locking type	Push-Pull
Coding	D

## Cable/line

Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
Stripping length of the individual wire	4 mm +0,5 mm

## Environmental and real-life conditions

### Ambient conditions

IP65
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Degree of protection	IP67
	IP68
	IP69K
Ambient temperature (operation)	-40 °C ... 85 °C (Plug / socket)

## Standards and regulations

### Testing

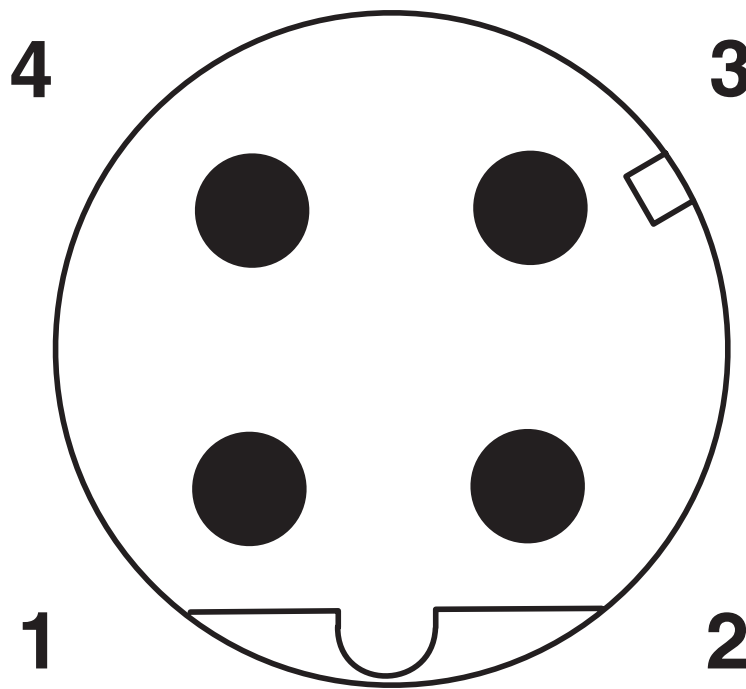
Standards/regulations	PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101
Note	In line with
Standard designation	Shock, vibration
Standards/specifications	EN 50155:2001

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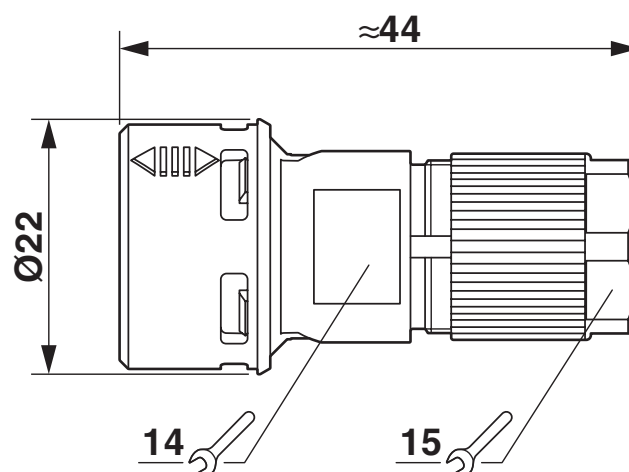
## Drawings

Schematic diagram



M12 PUSH-PULL male pin assignment, 4-pos., pin-side view

Dimensional drawing



M12 push-pull plug, straight, shielded

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## Classifications

### ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116

### ETIM

ETIM 9.0	EC002635
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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## Mandatory accessories

### CC1,0-TS-0,34M AU - Crimp contact

1064040

<https://www.phoenixcontact.com/pc/products/1064040>



Crimp contact, contact diameter: 1 mm, turned, Pin, contact material: CuZn, contact surface: Ni/Au, connection cross section: 0.14 mm<sup>2</sup> ... 0.34 mm<sup>2</sup>, AWG 26 ... 22

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### CC1,0-TS-1,00M AU - Crimp contact

1423645

<https://www.phoenixcontact.com/pc/products/1423645>



Crimp contact, contact diameter: 1 mm, turned, Pin, contact material: CuZn, contact surface: Ni/Au, connection cross section: 0.34 mm<sup>2</sup> ... 1 mm<sup>2</sup>, AWG 22 ... 18

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## Accessories



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## VS-OE-OE-936/... - Data cable

1417375

<https://www.phoenixcontact.com/pc/products/1417375>



Data cable, PROFINET CAT5 (100 Mbps), 4-position halogen-free, shielded, free cable end, on free cable end, cable length: Free input (0.5 ... 100 m)

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## VS-OE-OE-937/... - Data cable

1402687

<https://www.phoenixcontact.com/pc/products/1402687>



Data cable, PROFINET CAT5 (100 Mbps), 4-position halogen-free, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

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## CRIMPFOX-TC MP - Crimping pliers with digital display

1212510

<https://www.phoenixcontact.com/pc/products/1212510>



Crimping pliers, for turned contacts, universal cross section setting, up to a maximum of 2.5 mm<sup>2</sup>, digital display with 0.01 mm increments, pressure lock can be unlocked, including positioning tool

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## MICROFOX-SB - Diagonal cutter

1212489

<https://www.phoenixcontact.com/pc/products/1212489>



Electronic diagonal cutter, round head, without chamfer, with opening spring, mirror-polished and oiled, 2-component grip, cutting capacity: soft 0.2 - 2.0 mm; medium hard 1.2 mm; hard 0.5 mm diameter

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## WIREFOX-D 13 - Stripping tool

1212162

<https://www.phoenixcontact.com/pc/products/1212162>



Stripping tool, for stripping installation lines of Ø 8 - 13 mm , e.g. NYM 3 x 1.5 mm<sup>2</sup> to 5 x 2.5 mm<sup>2</sup>, single line stripping 0.2 mm<sup>2</sup> - 4 mm<sup>2</sup> , with longitudinal cut blade and sliding knife

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## WIREFOX SAC - Stripping tool

1212623

<https://www.phoenixcontact.com/pc/products/1212623>



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

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## VS-CABLE-STRIP-VARIO - Stripping tool

1657407

<https://www.phoenixcontact.com/pc/products/1657407>

Stripping tool, for the multi-level stripping of shielded cables



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