SACC-PO12MSD-4CT-CM SH PN - Data connector

1021830

https://www.phoenixcontact.com/us/products/1021830

PHŒNIX CONTACT

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Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug straight M12 Push-pull external locking, coding: D, Crimp connection, knurl material: PA 6.6, external cable diameter 4.5 mm ... 7.5 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	1021830
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF34
Product key	BF2CJN
Catalog page	Page 27 (C-2-2019)
GTIN	4055626514697
Weight per piece (including packing)	29.95 g
Weight per piece (excluding packing)	29.5 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)
Assembly note	NOTE: 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 note	Contacts can be clipped in place and unclipped without tools

Product properties

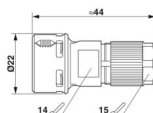|	
Product type	Circular connector (cable-side)
Application	Data
Sensor type	PROFINET
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	D
Cable outlet	straight

Data management status

Article revision	01

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	4.5 mm ... 7.5 mm

Housing

Diameter housing	22 mm

Material specifications

Flammability rating according to UL 94	V0
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 mm² ... 1 mm² (flexible)
Connection cross section AWG	26 ... 18 (flexible)
Stripping length of the individual wire	4 mm +0,5 mm
Tightening torque	4 Nm (Pressure nut with coupling sleeve)

Electrical properties

Rated surge voltage	2.5 kV
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Connector

Connection 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Head locking type	Push-pull external locking
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

Degree of protection	IP65
	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 61076-2-109, IEC 61076-2-010
Note	In line with
Standard designation	Shock, vibration
Standards/specifications	EN 50155:2001

Drawings

Dimensional drawing
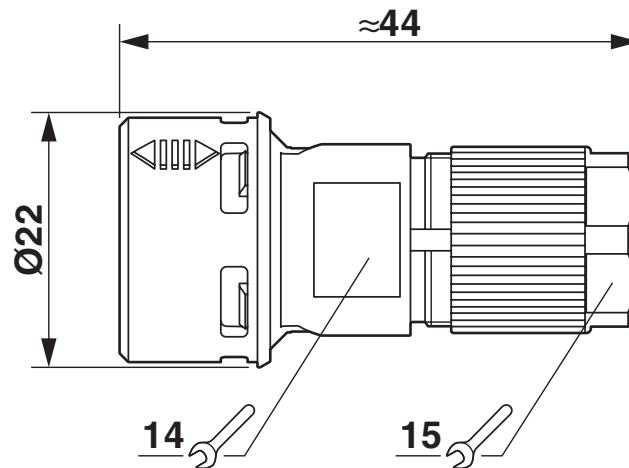
M12 push-pull plug, straight, shielded

Functional drawing

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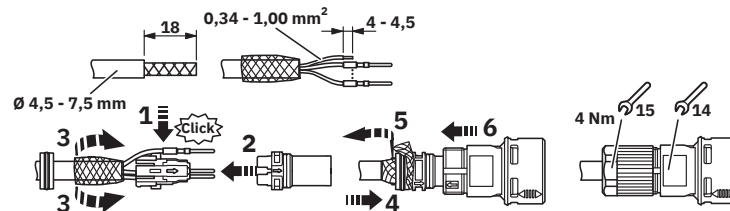
Schematic diagram
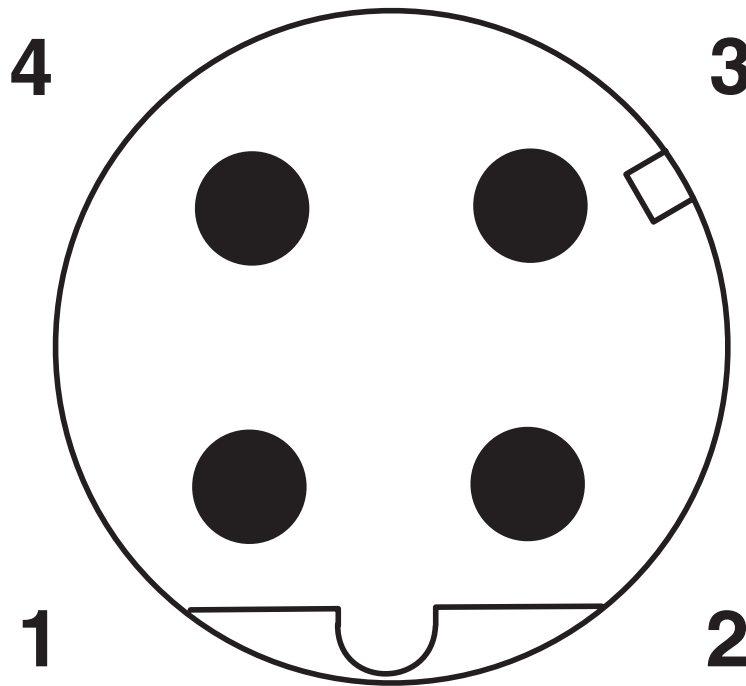
M12 PUSH-PULL male pin assignment, 4-pos., pin-side view

1021830

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Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002635

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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1021830

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Mandatory accessories

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

1064040

https://www.phoenixcontact.com/us/products/1064040

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

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

1423645

https://www.phoenixcontact.com/us/products/1423645

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

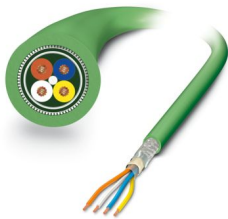## Accessories

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1021830

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VS-OE-OE-93R/... - Data cable

1417388

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Data cable, PROFINET CAT5 (100 Mbps), 4-position, PUR halogen-free, green RAL 6018, shielded, free cable end, on free cable end, cable length: Free input (0.5 ... 100 m)

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

1417375

https://www.phoenixcontact.com/us/products/1417375

Data cable, PROFINET CAT5 (100 Mbps), 4-position, PE-X halogen-free, black RAL 9005, shielded, free cable end, on free cable end, cable length: Free input (0.5 ... 100 m)

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1021830

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

1402687

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Data cable, PROFINET CAT5 (100 Mbps), 4-position, PE-X halogen-free, black RAL 9005, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

CRIMPFOX-TC MP - Crimping pliers with digital display

1212510

https://www.phoenixcontact.com/us/products/1212510

Crimping pliers, for turned contacts, universal cross section setting, up to a maximum of 2.5 mm^2, 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/us/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

WIREFOX-D 13 - Stripping tool

1212162

https://www.phoenixcontact.com/us/products/1212162

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

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1021830

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WIREFOX SAC - Stripping tool

1212623

https://www.phoenixcontact.com/us/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

VS-CABLE-STRIP-VARIO - Stripping tool

1657407

https://www.phoenixcontact.com/us/products/1657407

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