

SACC-M12FS-4QO SH PBPA - Data connector



1413934

<https://www.phoenixcontact.com/us/products/1413934>

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Data connector, PROFIBUS (31.25 kbps), 2-position, halogen-free, shielded, Socket straight M12, coding: A, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

Your advantages

- Safe use in the field, thanks to a high degree of protection
- Insulation displacement connection: innovative and time-saving assembly without stripping the single wire
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

Commercial data

Item number	1413934
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF31
Product key	BF2CDC
Catalog page	Page 423 (C-2-2019)
GTIN	4055626013169
Weight per piece (including packing)	49.4 g
Weight per piece (excluding packing)	50.4 g
Customs tariff number	85366990
Country of origin	DE

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Technical data

Notes

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.
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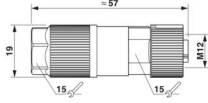
Product properties

Product type	Circular connector (cable-side)
Application	Data
Sensor type	PROFIBUS
Number of positions	2
No. of cable outlets	1
Shielded	yes
Coding	A
Cable outlet	straight

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Dimensions

Dimensional drawing	
Length	57 mm
Wrench size, union nut	15 mm

External dimensions

Outside diameter	5 mm ... 9.7 mm
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Housing

Diameter housing	19 mm
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Material specifications

Flammability rating according to UL 94	V0
Seal material	NBR
Material of grip body	Zinc die-cast, nickel-plated
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated

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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)
Wire insulation material	PVC / PE / PP / rubber

Connection data

Conductor connection

Connection method	Insulation displacement connection
Connection cross section	0.25 mm ² ... 0.75 mm ² (flexible)
	0.14 mm ² ... 0.5 mm ² (solid)
Connection cross section AWG	24 ... 18 (flexible)
	26 ... 20 (solid)
Tightening torque	5 Nm (Pressure nut)

Pin assignment

Contact Color (signal designation) Contact (optional)	PROFIBUS PA: 1 = OG (DATA+)
	PROFIBUS PA: 3 = BU (DATA-)
	PROFIBUS PA: 4 = WH (shield)
	FOUNDATION Fieldbus: 1 = BU (DATA-)
	FOUNDATION Fieldbus: 2 = OG (DATA+)
	FOUNDATION Fieldbus: 3 (shield)

Electrical properties

Rated surge voltage	0.8 kV
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	30 V DC
Nominal current I _N	4 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Connector

Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Coding	A

Cable/line

Signal type/category	PROFIBUS, 31.25 kbps
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Environmental and real-life conditions

Ambient conditions

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Degree of protection	IP65
	IP67
Ambient temperature (operation)	-40 °C ... 85 °C (Plug / socket)
Ambient temperature (assembly)	-5 °C ... 50 °C

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)
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M12

Standard designation	M12 connector
Standards/specifications	according to IEC 61076-2-101

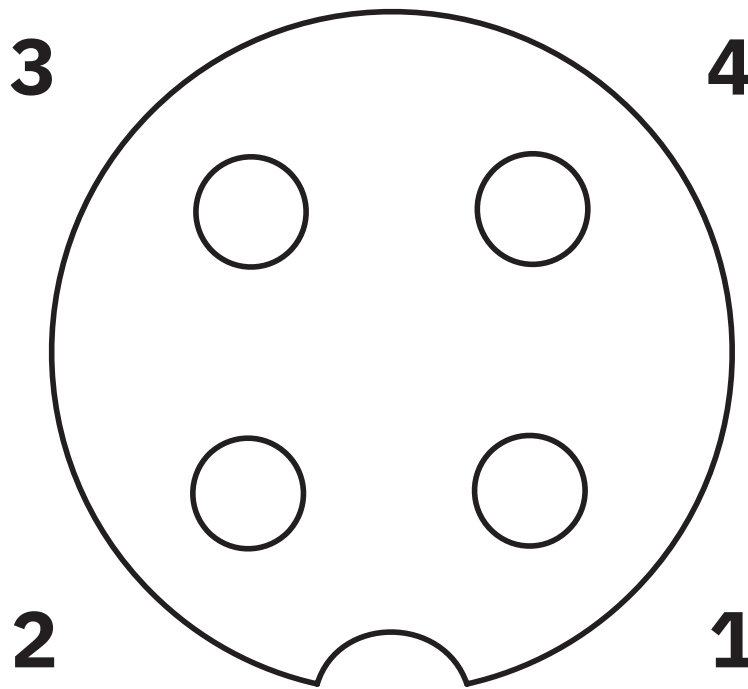
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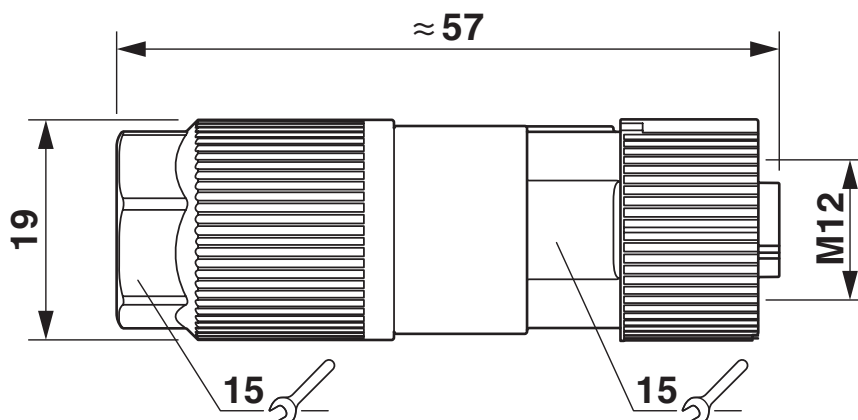
Drawings

Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side

Dimensional drawing



M12 x 1 socket, straight, shielded

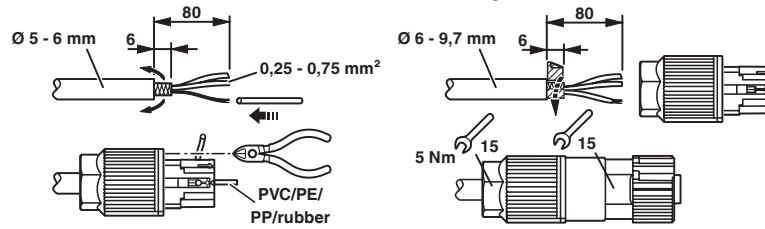
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Functional drawing



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Approvals

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EAC

Approval ID: RU C-DE.BL08.B.00511

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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

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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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Accessories

VS-08-RJ45-FOLIEN-SET - Shielding foil

1417184

<https://www.phoenixcontact.com/us/products/1417184>

Shielding foil set, 25 pieces, replacement for RJ45 and M12 Quickon connector



PROT-M12 MS-PA-CHAIN - Screw plug

1430899

<https://www.phoenixcontact.com/us/products/1430899>

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



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TSD 04 SAC - Torque screwdriver

1208429

<https://www.phoenixcontact.com/us/products/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

SACC BIT M12-D20 - Tool

1208445

<https://www.phoenixcontact.com/us/products/1208445>



Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive

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TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/us/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

<https://www.phoenixcontact.com/us/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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WIREFOX-D 40 - Stripping tool

1212161

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Stripping tool, for stripping cables of 4.5 mm - 40 mm-Ø, insulation thickness of up to 4.5 mm, pivoting blade for round, lengthwise, and spiral cuts

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

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VS-CABLE-STRIP-VARIO - Stripping tool

1657407

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

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



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