

# Data connector - SACC-M12MS-4QO SH PBPA



1413933

<https://www.phoenixcontact.com/us/products/1413933>

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Data connector, PROFIBUS PA (31.25 kbps), 2-position, halogen-free, shielded, Plug straight M12 SPEEDCON, 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
- Save time, thanks to installation with SPEEDCON fast locking system

## Commercial Data

Item number	1413933
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	B07
Product Key	BF2CDC
Catalog Page	Page 423 (C-2-2019)
GTIN	4055626013152
Weight per Piece (including packing)	45.3 g
Weight per Piece (excluding packing)	45.3 g
Customs tariff number	85366990
Country of origin	DE

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## Technical Data

### Notes

Assembly instruction:

**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.

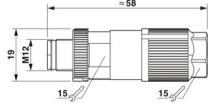
### Product properties

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

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Dimensions

Dimensional drawing	
Length	58 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
Sealing 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
Cable gland material	Zinc die-cast, nickel-plated
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

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## Connection data

### Conductor connection

Connection method	Insulation displacement connection
Connection cross section	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (flexible)
	0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> (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 <sub>N</sub>	30 V DC
Nominal current I <sub>N</sub>	4 A

## Connector

Insertion/withdrawal cycles	≥ 100
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### Connection 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	A-coded

## Cable / line

Signal type/category	PROFIBUS PA, 31.25 kbps
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## Ambient conditions

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

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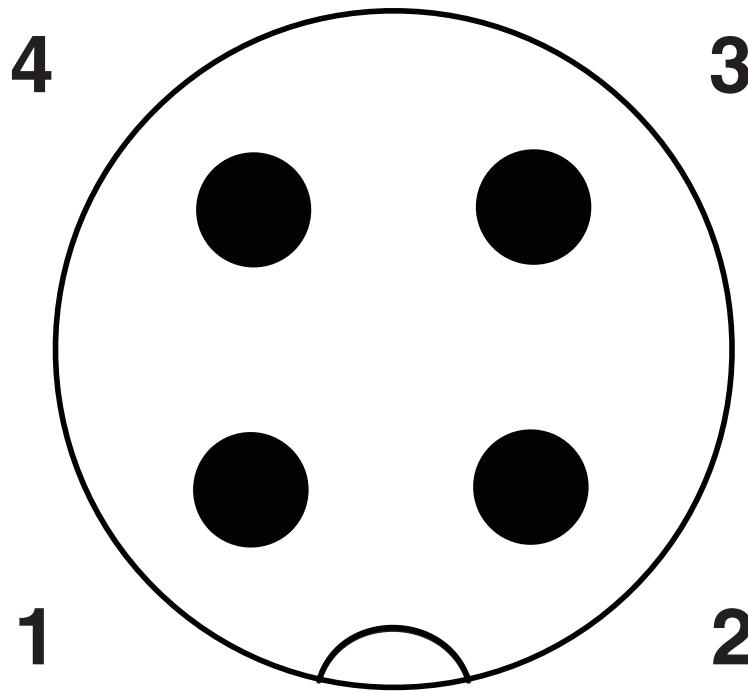
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Standards/regulations	PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)
M12	
Standards/specifications	according to IEC 61076-2-101

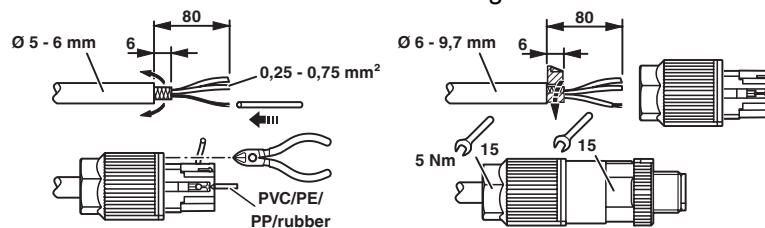
## Drawings

Schematic diagram



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

Functional drawing



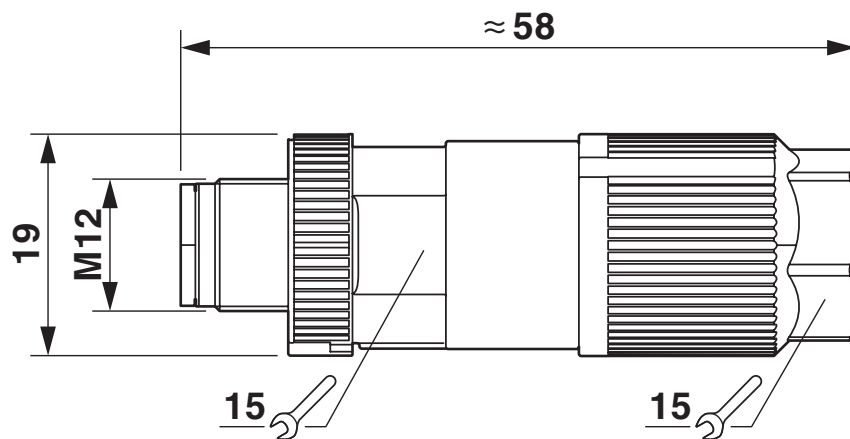
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Dimensional drawing



Plug, M12 x 1, straight, shielded

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## Approvals



**EAC**

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

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## Classifications

### ECLASS

ECLASS-9.0	27440102
ECLASS-10.0.1	27440102
ECLASS-11.0	27440102

### ETIM

ETIM 8.0	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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## Accessories

### Shielding foil

Shielding foil - VS-08-RJ45-FOLIEN-SET - 1417184

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

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



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### Torque screwdriver

Torque screwdriver - TSD 04 SAC - 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



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## Tool

Tool - SACC BIT M12-D20 - 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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## Torque screwdriver

Torque screwdriver - TSD-M 1,2NM - 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



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## Adapter insert

Adapter insert - TSD-M SAC-BIT ADAPTER - 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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## Sealing cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

<https://www.phoenixcontact.com/us/products/1430873>



M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs

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## Stripping tool

Stripping tool - WIREFOX-D 40 - 1212161

<https://www.phoenixcontact.com/us/products/1212161>



**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

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## Diagonal cutter

Diagonal cutter - MICROFOX-SB - 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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## Stripping tool

Stripping tool - VS-CABLE-STRIP-VARIO - 1657407

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

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



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