

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



1413933

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

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Data connector, PROFIBUS (31.25 kbps), 2-position, halogen-free, shielded, Plug 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	1413933
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	4055626013152
Weight per piece (including packing)	43.5 g
Weight per piece (excluding packing)	45.3 g
Customs tariff number	85366990
Country of origin	DE

## Technical data

### Notes

#### Assembly note

**NOTE:** Observe the permissible bending radii when routing cables, since the degree of protection may be at risk if the bending forces are too high. Reduce mechanical loads upstream of the connector, e.g., by using cable ties.

### Product properties

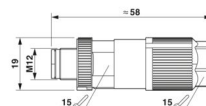
Product type	Circular connector (cable-side)
Application	Data
Sensor type	PROFIBUS
Number of positions	2
No. of cable outlets	1
Shielded	yes
Coding	A
Cable outlet	straight

#### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Dimensions

#### Dimensional drawing



Length	58 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 mm² ... 0.75 mm² (flexible)
	0.14 mm² ... 0.5 mm² (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	Plug
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

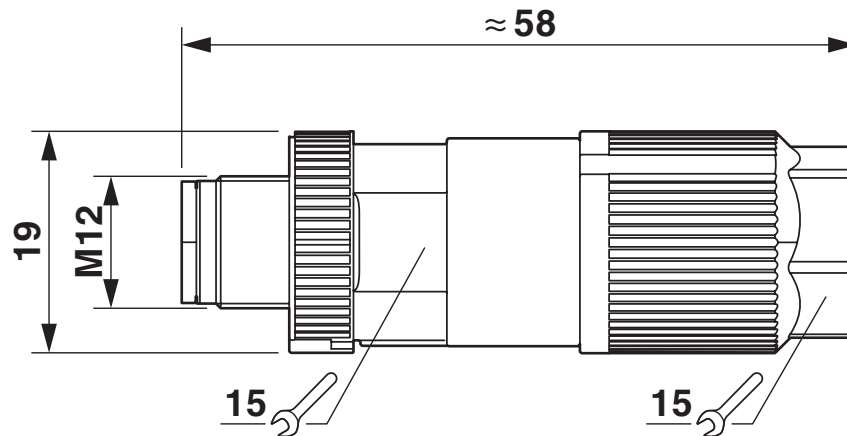
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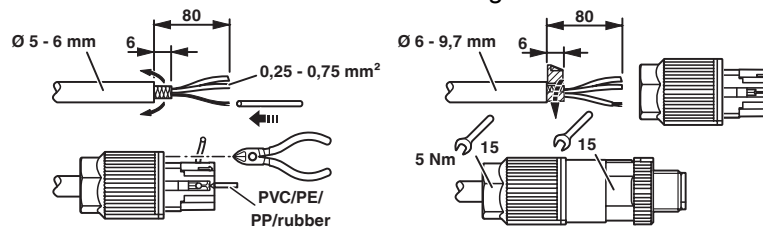
## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Functional drawing



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Schematic diagram



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

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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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### EF3.0 Climate Change

CO2e kg	1.027 kg CO2e
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