

SAC-2P-10,0-910/M12FSB - Bus system cable



1507311

<https://www.phoenixcontact.com/us/products/1507311>

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Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, red lilac RAL 4001, shielded (Plastic-coated aluminum foil, tinned copper braided shield), free cable end, on Socket straight M12, coding: B, cable length: 10 m

Commercial data

Item number	1507311
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	BF1CKC
Catalog page	Page 429 (C-2-2019)
GTIN	4017918900144
Weight per piece (including packing)	585.6 g
Weight per piece (excluding packing)	585.6 g
Customs tariff number	85444290
Country of origin	PL

SAC-2P-10,0-910/M12FSB - Bus system cable



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Technical data

Notes

General	Further products with variable cable lengths can be found in the accessories section
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Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	PROFIBUS
Number of positions	2
No. of cable outlets	1
Shielded	yes
Coding	B

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

Bus system	PROFIBUS
Signal type/category	PROFIBUS, 12 Mbps (max. 100 m)

Signaling

Status display	No
Status display present	No

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Transmission medium	Copper

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Material specifications

Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF

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Material for screw connection

Zinc die-cast, nickel-plated

Connection data

Pin assignment

Contact Color (signal designation) Contact (optional)

2 (Socket) GN (A cable)

4 (Socket) RD (B cable)

Connector

Connection 1

Type

free cable end

Connection 2

Type

free cable end

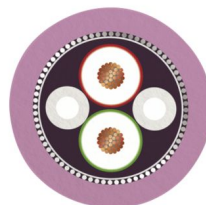
Cable/line

Cable length

10 m

PROFIBUS [910]

Dimensional drawing



Cable weight

90 kg/km

UL AWM Style

21198 (80°C/300 V)

Number of positions

2

Shielded

yes

Cable type

PROFIBUS [910]

Conductor structure

1x2xAWG24/19

Conductor structure signal line

19x 0.13 mm

AWG signal line

24

Conductor cross section

2x 0.25 mm ² (Signal line)

Wire diameter incl. insulation

2.55 mm ±0.07 mm

External cable diameter

7.80 mm ±0.2 mm

Outer sheath, material

PUR

External sheath, color

red lilac RAL 4001

Conductor material

Tin-plated Cu litz wires

Material, filler

PP

Material wire insulation

Foam-Skin PP

Single wire, color

red, green

Overall twist

2 cores with 2 fillers to the core

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Optical shield covering	85 %
Max. conductor resistance	$\leq 78.6 \Omega/\text{km}$
Insulation resistance	$\geq 5 \text{ G}\Omega \cdot \text{km}$
Wave impedance	$150 \Omega \pm 10 \%$ (3 MHz ... 20 MHz)
Cable capacity	nom. 30 pF/m
Nominal voltage, cable	300 V
Test voltage Core/Core	1500 V (50 Hz, 1 min.)
Test voltage Core/Shield	1500.00 V (50 Hz, 1 min.)
Smallest bending radius, fixed installation	40 mm
Smallest bending radius, movable installation	65 mm
Max. bending cycles	4000000 5000000
Shield attenuation	$\leq 0.049 \text{ dB/m}$ (at 16 MHz)
Halogen-free	in accordance with DIN VDE 0472 part 815 according to IEC 60754-1
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1) UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2) IEC 60332-1-2
Other resistance	Low adhesion
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -30 °C ... 70 °C (Cable, flexible installation) -20 °C ... 60 °C (for installation) -20 °C ... 60 °C (cable, drag chain applications)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65 IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

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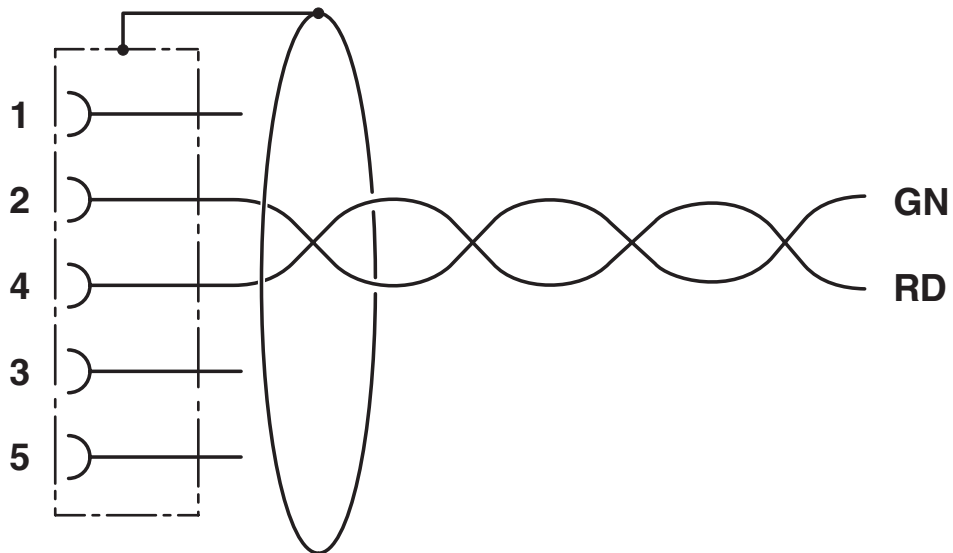
Drawings

Dimensional drawing

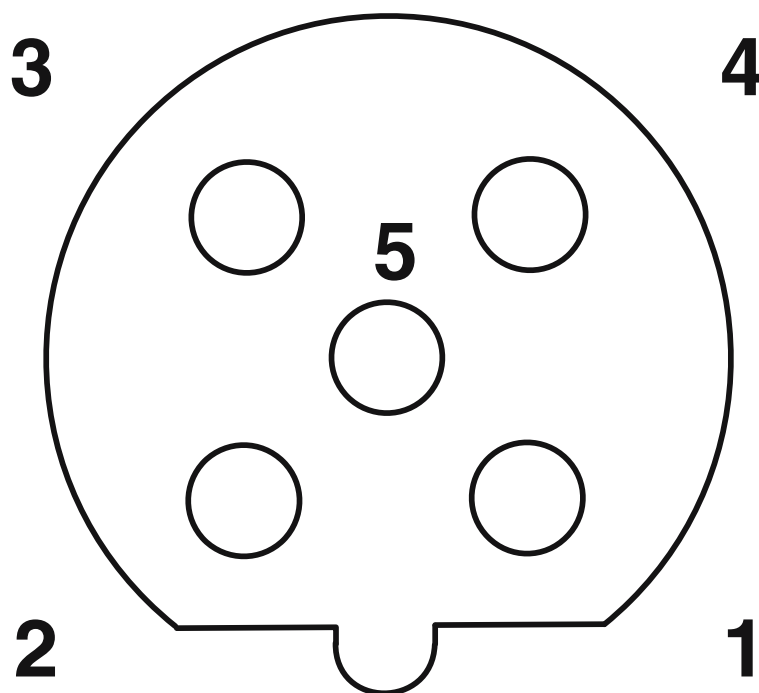


M12 x 1 socket, straight, shielded

Circuit diagram



Schematic diagram



Pin assignment M12 socket, 5-pos., B-coded, female side

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1507311>



EAC-RoHS
Approval ID: RU D-DE.HB35.B.00387

	UL Listed Approval ID: FILE E 221474			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	300 V	4 A	-	-

	cUL Listed Approval ID: FILE E 221474			
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	300 V	4 A	-	-

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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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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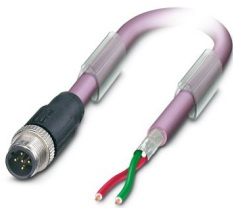
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Accessories

SAC-2P-M12MSB/910/... - Bus system cable

1538047

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Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, red lilac RAL 4001, shielded (Plastic-coated aluminum foil, tinned copper braided shield), Plug straight M12, coding: B, on free cable end, cable length: Free input (0.2 ... 40.0 m)

SAC-2P-M12MSB-M12FSB/910/... - Bus system cable

1538089

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Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, red lilac RAL 4001, shielded (Plastic-coated aluminum foil, tinned copper braided shield), Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: Free input (0.2 ... 40.0 m)

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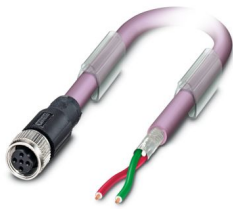
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Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, red lilac RAL 4001, shielded (Plastic-coated aluminum foil, tinned copper braided shield), free cable end, on Socket straight M12, coding: B, cable length: Free input (0.2 .. 40.0 m)

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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SAC-M12-EXCLIP-F - Locking clip

1558991

<https://www.phoenixcontact.com/us/products/1558991>



Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

WP-CTA POM 13,0 BK - Protective hose adapter

1422884

<https://www.phoenixcontact.com/us/products/1422884>



Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

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WP-PA HF 13,0 BK - Protective hose

3240681

<https://www.phoenixcontact.com/us/products/3240681>



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m

WP-PA HF-HB 13,0 BK - Protective hose

3240839

<https://www.phoenixcontact.com/us/products/3240839>



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

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SACC-M12FSB-2PL SH PB - Data connector

1424680

<https://www.phoenixcontact.com/us/products/1424680>



Data connector, PROFIBUS DP (12 Mbps), 2-position, shielded, Socket straight M12, coding: B, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

SACC-M12MSB-2PL SH PB - Data connector

1424678

<https://www.phoenixcontact.com/us/products/1424678>



Data connector, PROFIBUS DP (12 Mbps), 2-position, shielded, Plug straight M12, coding: B, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

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SACC-M12FRB-2PL SH PB - Data connector

1424681

<https://www.phoenixcontact.com/us/products/1424681>



Data connector, PROFIBUS DP (12 Mbps), 2-position, shielded, Socket angled M12, coding: B, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

SACC-M12MRB-2PL SH PB - Data connector

1424679

<https://www.phoenixcontact.com/us/products/1424679>



Data connector, PROFIBUS DP (12 Mbps), 2-position, shielded, Plug angled M12, coding: B, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

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SACC-M12FSB-2QO SH PB - Data connector

1413932

<https://www.phoenixcontact.com/us/products/1413932>



Data connector, PROFIBUS (12 Mbps), 2-position, halogen-free, shielded, Socket straight M12, coding: B, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

SACC-M12MSB-2QO SH PB - Data connector

1413931

<https://www.phoenixcontact.com/us/products/1413931>



Data connector, PROFIBUS (12 Mbps), 2-position, halogen-free, shielded, Plug straight M12, coding: B, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

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SACC-M12FSB-5CON-PG9 SH AU - Data connector

1507777

<https://www.phoenixcontact.com/us/products/1507777>



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Socket straight M12, coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

SACC-M12MSB-5CON-PG9 SH AU - Data connector

1507764

<https://www.phoenixcontact.com/us/products/1507764>



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Plug straight M12, coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

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SACC-M12FRB-5CON-PG 9-SH - Data connector

1430420

<https://www.phoenixcontact.com/us/products/1430420>



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Socket angled M12, coding: B, Screw connection, knurl material: Brass, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm

SACC-M12MRB-5CON-PG 9-SH - Data connector

1430417

<https://www.phoenixcontact.com/us/products/1430417>



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Plug angled M12, coding: B, Screw connection, knurl material: Brass, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm

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SAC-5PT-FB/2XMB PBDP SH - T distributor

1424711

<https://www.phoenixcontact.com/us/products/1424711>



T distributor, PROFIBUS DP (12 Mbps), 5-position, Socket straight M12, coding: B, on Plug straight M12, coding: B and Plug straight M12, coding: B

SAC-5PT-FB/MB-MBF PBDP SH - T distributor

1424713

<https://www.phoenixcontact.com/us/products/1424713>



T distributor, PROFIBUS DP (12 Mbps), 5-position, Socket straight M12, coding: B, on Plug straight M12, coding: B and Plug straight M12, coding: B, Fixed M12 thread on plug input

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SAC-5P-M12MS PB TR - Termination resistor

1507803

<https://www.phoenixcontact.com/us/products/1507803>

Terminating resistor PROFIBUS M12



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



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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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SAC BIT M12-D15 - Tool

1208432

<https://www.phoenixcontact.com/us/products/1208432>



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

CUTFOX 12 - Cable-cutting tool

1212128

<https://www.phoenixcontact.com/us/products/1212128>



Cable cutter, for copper and aluminum up to 12 mm diameter (up to 35 mm²)

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CUTFOX-S VDE - Diagonal cutter

1212207

<https://www.phoenixcontact.com/us/products/1212207>



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

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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MICROFOX-SP-1 - Diagonal cutter

1212487

<https://www.phoenixcontact.com/us/products/1212487>



Electronic diagonal cutter, tapered head, without chamfer, with opening spring, non-reflective phosphate-treated surface, punched version

WIREFOX 4 - Stripping tool

1212156

<https://www.phoenixcontact.com/us/products/1212156>



Stripping tool, for cables and conductors (especially for rubber and silicone insulations) from 0.1 - 4 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

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WIREFOX-E 4 - Stripping tool

1212704

<https://www.phoenixcontact.com/us/products/1212704>



Stripping tool, for cables and conductors (especially for rubber and silicone insulations) from 0.1 - 4 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

WIREFOX 10 - Stripping tool

1212150

<https://www.phoenixcontact.com/us/products/1212150>



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

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