

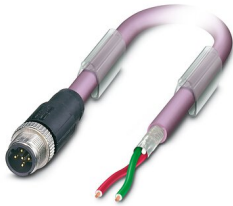
Bus system cable - SAC-2P-M12MSB/ 2,0-910



1507243

<https://www.phoenixcontact.com/gb/products/1507243>

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Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, red lilac RAL 4001, shielded, Plug straight M12, coding: B, on free cable end, cable length: 2 m

Commercial Data

Item number	1507243
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1CKC
Product Key	BF1CKC
Catalog Page	Page 429 (C-2-2019)
GTIN	4017918900083
Weight per Piece (including packing)	142.9 g
Weight per Piece (excluding packing)	142.9 g
Customs tariff number	85444290
Country of origin	PL

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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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
Number of positions	2
Application	Standard
No. of cable outlets	1
Shielded	yes
Coding	B - inverse

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

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

LED signaling

Status display	No
Status display present	No

Electrical properties

Contact resistance	$\leq 5 \text{ m}\Omega$
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

Material specifications

Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Cable gland material	Zinc die-cast, nickel-plated

Connection data

Pin assignment

Contact Color (signal designation) Contact (optional)	2 (Plug) = GN (A cable)
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4 (Plug) = RD (B cable)

Connector

Insertion/withdrawal cycles	≥ 100
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Header 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Coding	B

Head 2

Head design	free cable end
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Cable / line

Cable length	2 m
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 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	7.8 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires
Material wire insulation	Foam-Skin PP
Single wire, color	Red, green
Overall twist	2 cores with 2 fillers to the core
Optical shield covering	85 %
Max. conductor resistance	≤ 78.6 Ω/km
Insulation resistance	≥ 5 GΩ*km
Wave impedance	150 Ω ±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 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	≤ 0.049 dB/m (at 16 MHz)

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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)

Cable structure

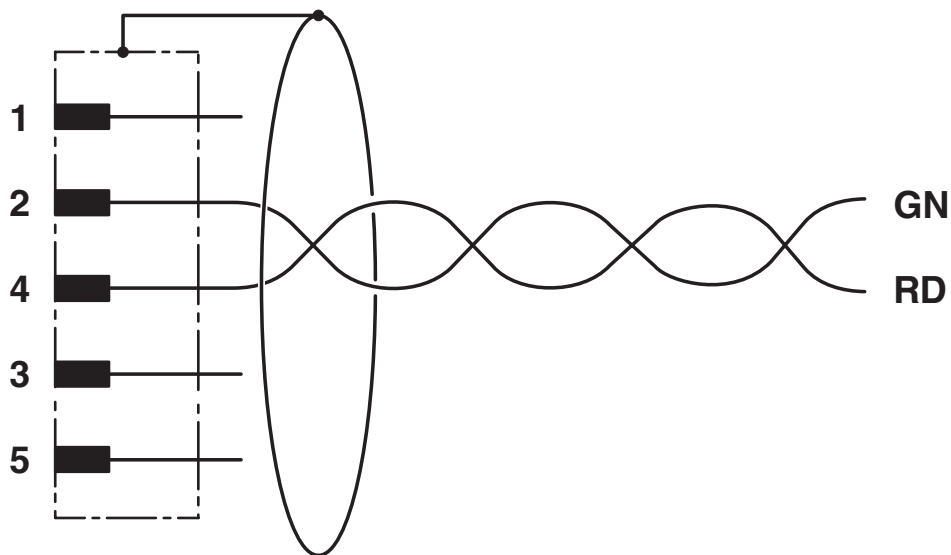
Cable type	PROFIBUS
Signal type/category	PROFIBUS, 12 Mbps (max. 100 m)
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001

Ambient conditions

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

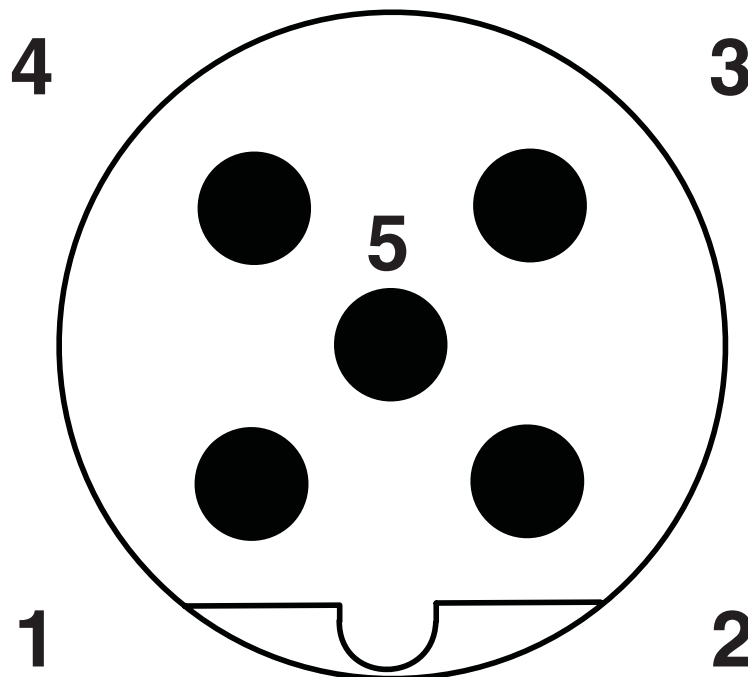
Drawings

Circuit diagram



Contact assignment of the M12 plug

Schematic diagram



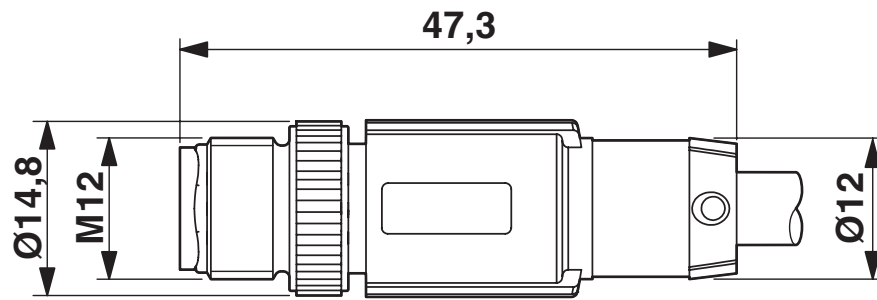
Pin assignment M12 male connector, 5-pos., B-coded, male side

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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.00286



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	-	-



EAC

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

cULus Listed

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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Classifications

ECLASS

ECLASS-9.0	27060308
ECLASS-10.0.1	27060308
ECLASS-11.0	27060307

ETIM

ETIM 8.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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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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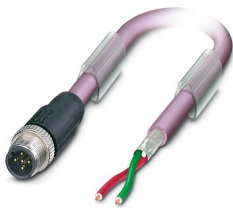


Accessories

Bus system cable

Bus system cable - SAC-2P-M12MSB/910/... - 1538047

<https://www.phoenixcontact.com/gb/products/1538047>



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

Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

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



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

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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Bus system cable

Bus system cable - SAC-2P-M12MSB-M12FSB/910/... - 1538089

<https://www.phoenixcontact.com/gb/products/1538089>



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

Torque screwdriver

Torque screwdriver - TSD-M 1,2NM - 1212224

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



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

Bus system cable - SAC-2P-M12MSB/ 2,0-910



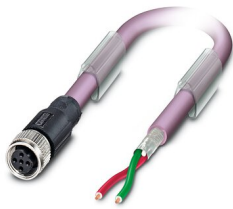
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Bus system cable

Bus system cable - SAC-2P-M12FSB/910/... - 1538063

<https://www.phoenixcontact.com/gb/products/1538063>



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

Adapter insert

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

<https://www.phoenixcontact.com/gb/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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<https://www.phoenixcontact.com/gb/products/1507243>

Tool

Tool - SAC BIT M12-D15 - 1208432

<https://www.phoenixcontact.com/gb/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

Sealing cap

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

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



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

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Locking clip

Locking clip - SAC-M12-EXCLIP-M - 1558988

<https://www.phoenixcontact.com/gb/products/1558988>



Locking clip for the pin 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

Cable-cutting tool

Cable-cutting tool - CUTFOX 12 - 1212128

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



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

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Diagonal cutter

Diagonal cutter - CUTFOX-S VDE - 1212207

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



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

Stripping tool

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

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



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

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Diagonal cutter

Diagonal cutter - MICROFOX-SP-1 - 1212487

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



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

Stripping tool

Stripping tool - WIREFOX 4 - 1212156

<https://www.phoenixcontact.com/gb/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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Stripping tool

Stripping tool - WIREFOX-E 4 - 1212704

<https://www.phoenixcontact.com/gb/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

Stripping tool

Stripping tool - WIREFOX 10 - 1212150

<https://www.phoenixcontact.com/gb/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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Protective hose adapter

Protective hose adapter - WP-CTA POM 13,0 BK - 1422884

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



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

Protective hose

Protective hose - WP-PA HF 13,0 BK - 3240681

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



Protective hose, material: PA 6, filament: without, UV-resistant: yes, flexible, degree of protection: IP68, color: black, inflammability class in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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Protective hose

Protective hose - WP-PA HF-HB 13,0 BK - 3240839

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



Protective hose, material: PA 6, filament: without, UV-resistant: yes, flexible, degree of protection: IP68, color: black, inflammability class in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

Data connector

Data connector - SACC-M12FSB-2PL SH PB - 1424680

<https://www.phoenixcontact.com/gb/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

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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<https://www.phoenixcontact.com/gb/products/1507243>

Data connector

Data connector - SACC-M12MSB-2PL SH PB - 1424678

<https://www.phoenixcontact.com/gb/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

Data connector

Data connector - SACC-M12FRB-2PL SH PB - 1424681

<https://www.phoenixcontact.com/gb/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

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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<https://www.phoenixcontact.com/gb/products/1507243>

Data connector

Data connector - SACC-M12MRB-2PL SH PB - 1424679

<https://www.phoenixcontact.com/gb/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

Data connector

Data connector - SACC-M12FSB-2QO SH PB - 1413932

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



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

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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Data connector

Data connector - SACC-M12MSB-2QO SH PB - 1413931

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



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

Data connector

Data connector - SACC-M12FSB-5CON-PG9 SH AU - 1507777

<https://www.phoenixcontact.com/gb/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

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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Data connector

Data connector - SACC-M12MSB-5CON-PG9 SH AU - 1507764

<https://www.phoenixcontact.com/gb/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

Data connector

Data connector - SACC-M12FRB-5CON-PG 9-SH - 1430420

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



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

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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Data connector

Data connector - SACC-M12MRB-5CON-PG 9-SH - 1430417

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



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

T distributor

T distributor - SAC-5PT-FB/2XMB PBDP SH - 1424711

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



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

Bus system cable - SAC-2P-M12MSB/ 2,0-910



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T distributor

T distributor - SAC-5PT-FB/MB-MBF PBDP SH - 1424713

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



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

Termination resistor

Termination resistor - SAC-5P-M12MS PB TR - 1507803

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



Terminating resistor PROFIBUS M12

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