

SAC-2P-M12MSB/ 5,0-910/M12FSB - Bus system cable

1507382
<https://www.phoenixcontact.com/us/products/1507382>

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Bus system cable, PROFIBUS (12 Mbps), 2-position halogen-free, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 5 m

Commercial data

Item number	1507382
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	BF1CKC
Catalog page	Page 429 (C-2-2019)
GTIN	4017918900205
Weight per piece (including packing)	326.9 g
Weight per piece (excluding packing)	326.9 g
Customs tariff number	85444290
Country of origin	PL

SAC-2P-M12MSB/ 5,0-910/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
Sensor type	PROFIBUS
Number of positions	2
Application	Standard
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

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

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

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Contact carrier material	PA 6.6 (plug), TPU GF (socket)
Material for screw connection	Zinc die-cast, nickel-plated

Connection data

Pin assignment

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

Connector

Connection 1

Type	Plug straight M12
Number of positions	2
Coding type	B (inverse)

Connection 2

Type	Socket straight M12
Number of positions	2
Coding type	B

Cable/line

Cable length	5 m
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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	7.8 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001

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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
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 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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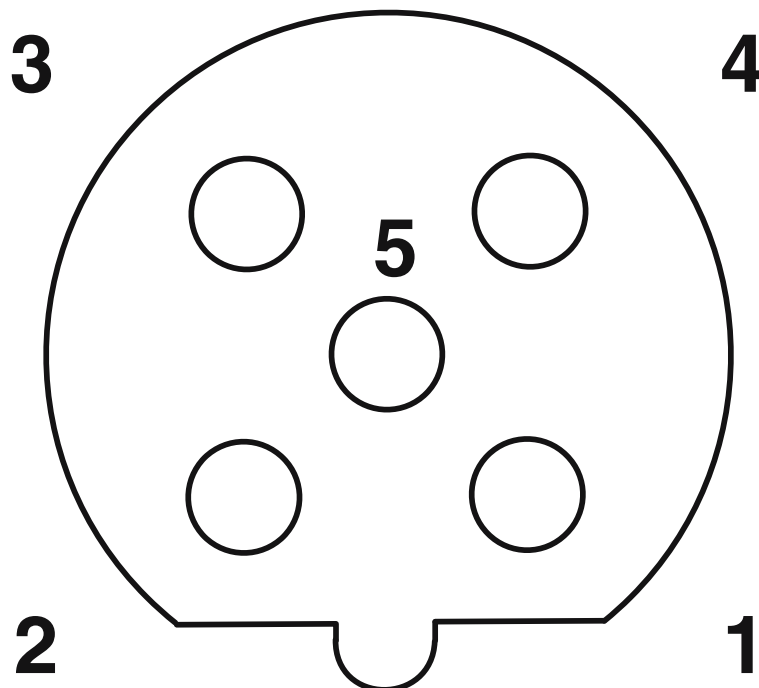
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



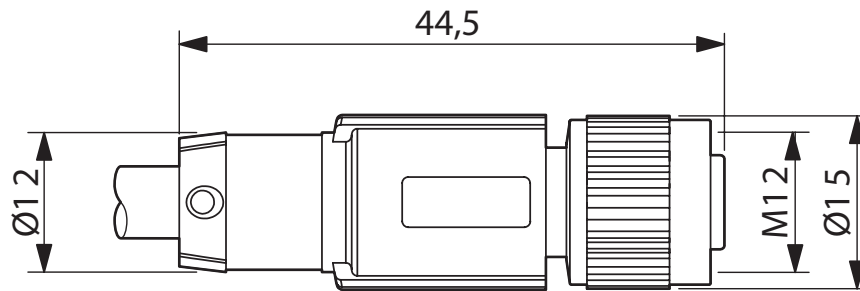
Pin assignment M12 socket, 5-pos., B-coded, female side

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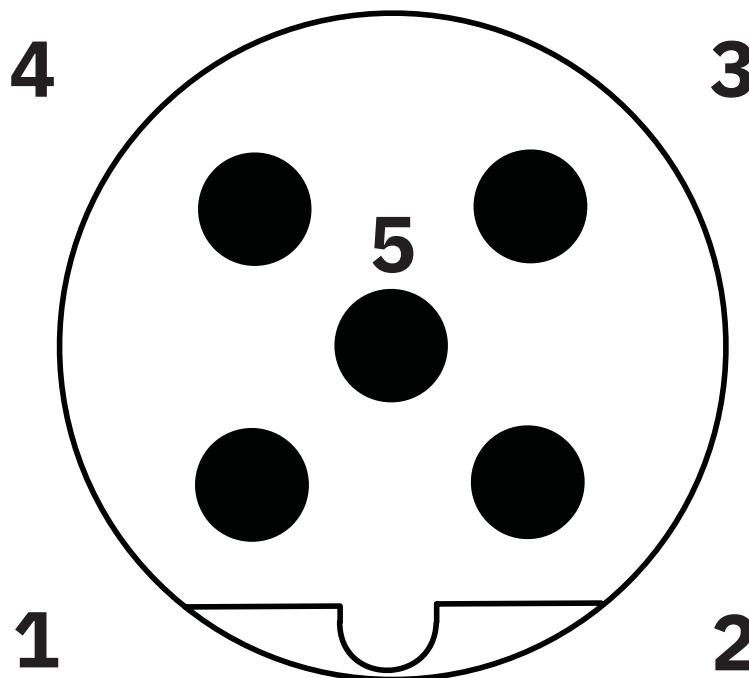
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Dimensional drawing



M12 x 1 socket, straight, shielded

Schematic diagram



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

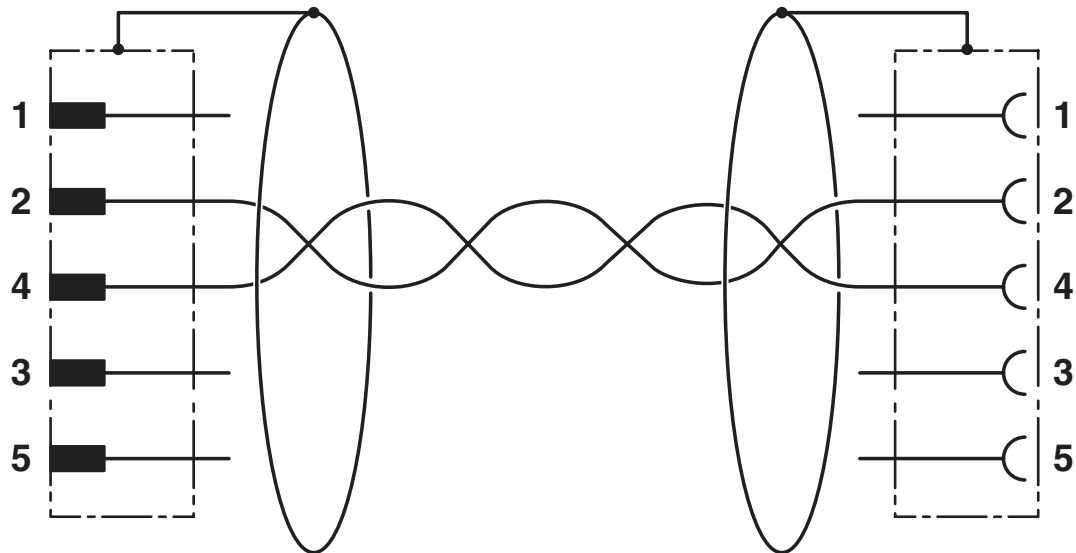
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Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1507382>

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

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

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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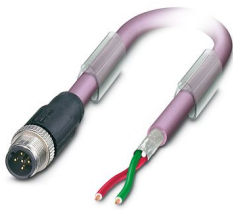
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Accessories

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

1538047

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

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

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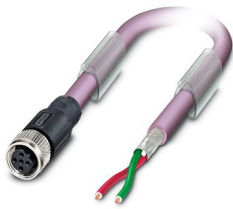
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SAC-2P-M12FSB/910/... - Bus system cable

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

PROT-M12 FS-PA-CHAIN - Sealing cap

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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SAC-M12-EXCLIP-M - Locking clip

1558988

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

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

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

1424711

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

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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, shielded, Socket straight M12, coding: B, on Plug straight M12, coding: B and Plug straight M12, coding: B, Fixed M12 thread on plug input

SAC-5P-M12MS PB TR - Termination resistor

1507803

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Terminating resistor PROFIBUS M12

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TSD 04 SAC - Torque screwdriver

1208429

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

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

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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

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

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