

# Bus system cable - SAC-2P-MSB/ 2,0-910 SCO



1518025

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

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## Commercial Data

Item number	1518025
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	BF1CKC
Catalog Page	Page 198 (C-6-2019)
GTIN	4017918968144
Weight per Piece (including packing)	142.8 g
Weight per Piece (excluding packing)	142.6 g
Customs tariff number	85444290
Country of origin	PL

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## Technical Data

### 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	TPU GF
Cable gland material	Zinc die-cast, nickel-plated

### Connection data

#### Pin assignment

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

### Connector

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## Header 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
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 <sup>2</sup> (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)
Halogen-free	in accordance with DIN VDE 0472 part 815 according to IEC 60754-1 UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)

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Flame resistance	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)

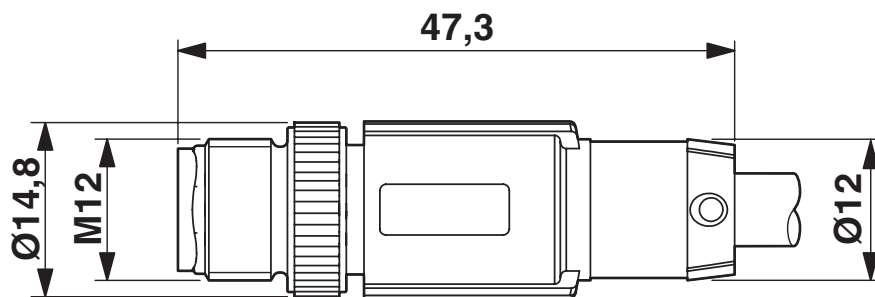
# Bus system cable - SAC-2P-MSB/ 2,0-910 SCO

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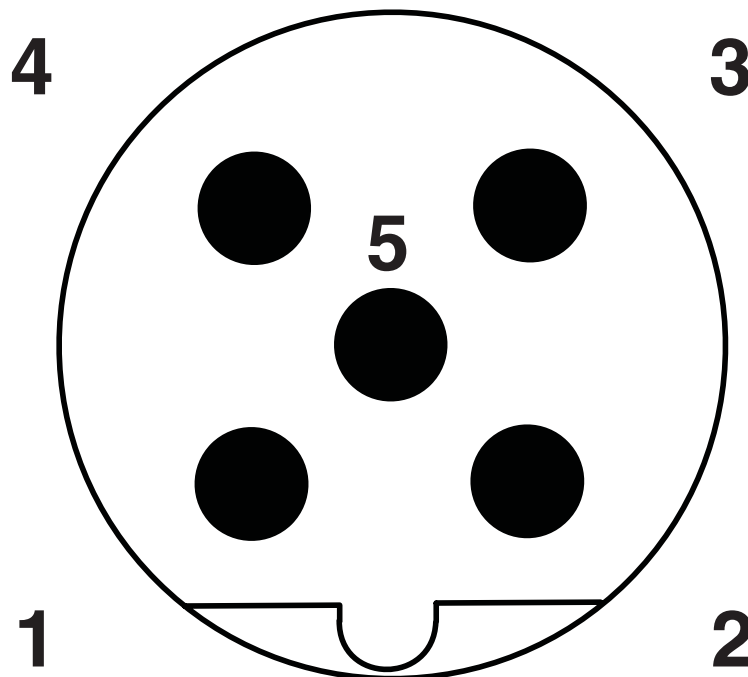
## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



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

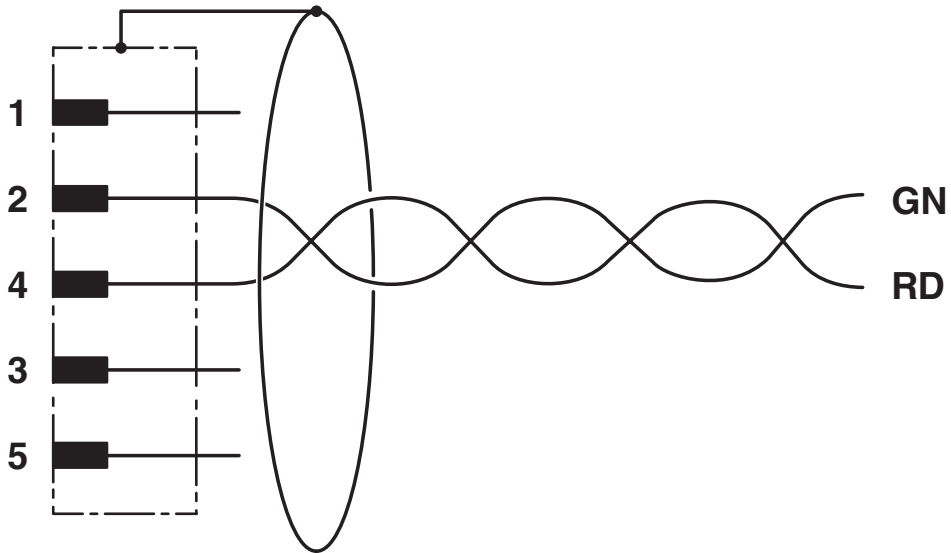
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Circuit diagram



Contact assignment of the M12 plug

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## Approvals

 <b>UL Listed</b> Approval ID: FILE E 221474				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	300 V	4 A	-	-

 <b>cUL Listed</b> Approval ID: FILE E 221474				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	300 V	4 A	-	-

 <b>EAC</b> Approval ID: RU D-DE.HB35.B.00387				
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<b>cULus Listed</b>				
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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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