

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



1507308

<https://www.phoenixcontact.com/us/products/1507308>

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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: 5 m

## Commercial data

Item number	1507308
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	BF1CKC
Catalog page	Page 429 (C-2-2019)
GTIN	4017918900137
Weight per piece (including packing)	316.6 g
Weight per piece (excluding packing)	303.5 g
Customs tariff number	85444290
Country of origin	PL

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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	≥ 100 MΩ
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
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## 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
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### Connection 2

Type	free cable end
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## 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 <sup>2</sup> (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	≤ 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	1500.00 V (50 Hz, 1 min.)
Smallest bending radius, fixed installation	40 mm
Smallest bending radius, movable installation	65 mm
Dynamic load capacity (bending)	<p>Max. bending cycles: 4000000, Bending radius: 65 mm, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s<sup>2</sup>, Ambient temperature: -20 °C ... 60 °C</p> <p>Max. bending cycles: 5000000, Bending radius: 80 mm, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s<sup>2</sup>, Ambient temperature: -20 °C ... 60 °C</p>
Shield attenuation	≤ 0.049 dB/m (at 16 MHz)
Halogen-free	<p>in accordance with DIN VDE 0472 part 815</p> <p>according to IEC 60754-1</p>
Flame resistance	<p>UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)</p> <p>UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)</p> <p>IEC 60332-1-2</p>
Other resistance	Low adhesion
Ambient temperature (operation)	<p>-40 °C ... 80 °C (cable, fixed installation)</p> <p>-30 °C ... 70 °C (Cable, flexible installation)</p> <p>-20 °C ... 60 °C (for installation)</p> <p>-20 °C ... 60 °C (cable, drag chain applications)</p>

## Environmental and real-life conditions

### Ambient conditions

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

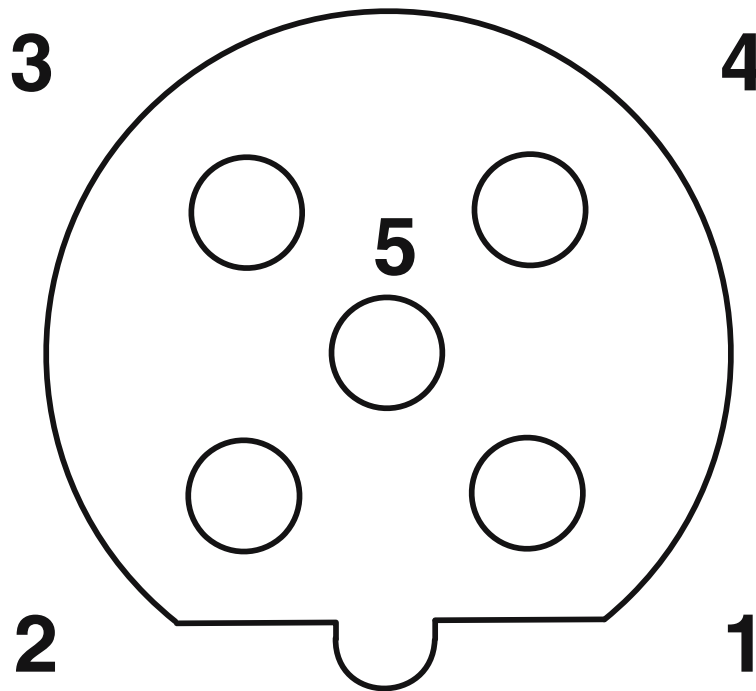
# SAC-2P- 5,0-910/M12FSB - Bus system cable

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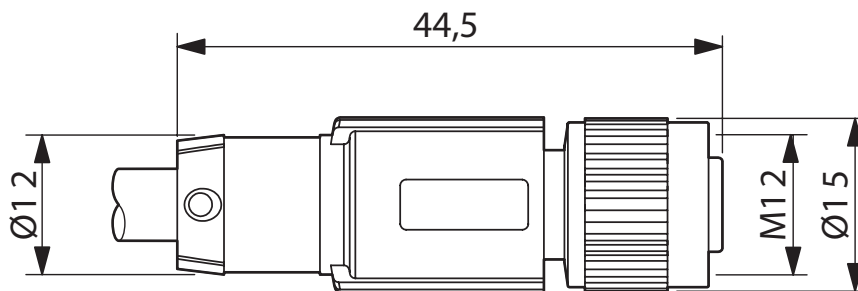
## Drawings

Schematic diagram



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

Dimensional drawing



M12 x 1 socket, straight, shielded

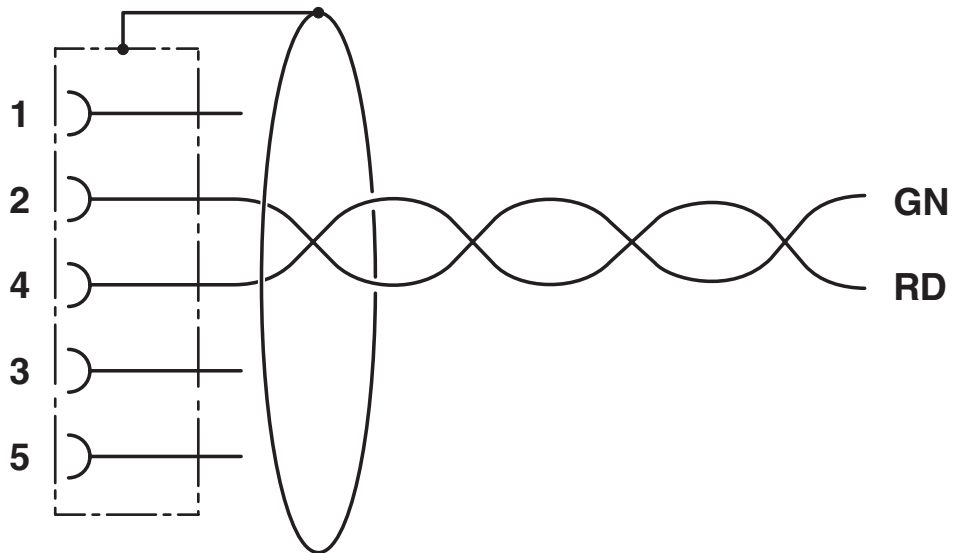
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Circuit diagram



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





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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1507308>

 <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-RoHS</b> Approval ID: RU D-DE.HB35.B.00387
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<b>cULus Listed</b>
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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
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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	3.053 kg CO2e
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