

# SAC-5P-MSB/15,0-900/FSB SCO - Bus system cable



1518012

<https://www.phoenixcontact.com/us/products/1518012>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12 SPEEDCON, coding: B, on Socket straight M12 SPEEDCON, coding: B, cable length: 15 m

## Commercial data

Item number	1518012
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	BF1CKB
Catalog page	Page 198 (C-6-2019)
GTIN	4017918968137
Weight per piece (including packing)	1,092.4 g
Weight per piece (excluding packing)	1,092.4 g
Customs tariff number	85444290
Country of origin	PL

1518012

<https://www.phoenixcontact.com/us/products/1518012>

## Technical data

### Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	INTERBUS
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	B

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Interfaces

Bus system	INTERBUS
Signal type/category	INTERBUS, 16 Mbps

### 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

### Material specifications

Flammability rating according to UL 94	V0
Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated

### Connection data

#### Pin assignment

Contact   Color (signal designation)   Contact (optional)	1 (Plug)   YE ( <u>DO</u> )   1 (Socket)
	2 (Plug)   GN ( <u>DO</u> )   2 (Socket)
	3 (Plug)   GY (DI)   3 (Socket)

# SAC-5P-MSB/15,0-900/FSB SCO - Bus system cable



1518012

<https://www.phoenixcontact.com/us/products/1518012>

	4 (Plug)   PK (DI)   4 (Socket)
	5 (Plug)   BN (GND)   5 (Socket)

## Connector

### Connection 1

Type	Plug straight M12 SPEEDCON
Number of positions	5
Locking type	SPEEDCON
Coding type	B (inverse)

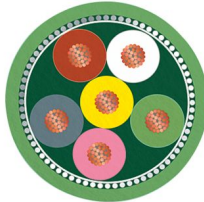
### Connection 2

Type	Socket straight M12 SPEEDCON
Number of positions	5
Locking type	SPEEDCON
Coding type	B

## Cable/line

Cable length	15 m
--------------	------

### INTERBUS [900]

Dimensional drawing	
Cable weight	70 kg/km
Number of positions	6
Shielded	yes
Cable type	INTERBUS [900]
Conductor structure	3 x 2 x 0.22 mm <sup>2</sup>
Signal speed	0.66 c
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	3x 2x 0.22 mm <sup>2</sup>
External cable diameter	8.00 mm
Outer sheath, material	PUR
External sheath, color	may green RAL 6017
Conductor material	Bare Cu litz wires
Material wire insulation	PE
Single wire, color	green-yellow, white-brown, gray-pink
Twisted pairs	2 cores to the pair

# SAC-5P-MSB/15,0-900/FSB SCO - Bus system cable



1518012

<https://www.phoenixcontact.com/us/products/1518012>

Overall twist	3 pairs to the core
Insulation resistance	$\geq 5 \text{ G}\Omega \cdot \text{km}$
Coupling resistance	$< 250.00 \text{ m}\Omega/\text{m}$ (at 30 MHz)
Loop resistance	$\leq 159.80 \text{ }\Omega/\text{km}$
Wave impedance	$120 \text{ }\Omega \pm 20 \%$ (at 64 kHz)
	$100 \text{ }\Omega \pm 15 \%$ (with 1 MHz)
Cable capacity	$\leq 60 \text{ nF/km}$ (At 800 Hz)
Nominal voltage, cable	250 V (Peak value, not for high-power applications)
Test voltage Core/Core	$1500 \text{ V}_{\text{rms}}$
Test voltage Core/Shield	$1000.00 \text{ V}_{\text{rms}}$
Minimum bending radius, fixed installation	$7.5 \times D$
Minimum bending radius, flexible installation	$15 \times D$
Smallest bending radius, fixed installation	60 mm
Smallest bending radius, movable installation	120 mm
Max. bending cycles	5000000
Bending radius	120 mm
Traversing path	10 m
Traversing rate	1.6 m/s
Acceleration	$3.2 \text{ m/s}^2$
Near end crosstalk attenuation (NEXT)	$\geq 61 \text{ dB}$ (at 772 kHz)
	$\geq 59 \text{ dB}$ (with 1 MHz)
	$\geq 55 \text{ dB}$ (at 2 MHz)
	$\geq 50 \text{ dB}$ (at 4 MHz)
	$\geq 46 \text{ dB}$ (at 8 MHz)
	$\geq 44 \text{ dB}$ (at 10 MHz)
	$\geq 41 \text{ dB}$ (at 16 MHz)
Shield attenuation	$\leq 15 \text{ dB/km}$ (at 256 kHz)
	$\leq 24 \text{ dB/km}$ (at 772 kHz)
	$\leq 27 \text{ dB/km}$ (with 1 MHz)
	$\leq 52 \text{ dB/km}$ (at 4 MHz)
	$\leq 84 \text{ dB/km}$ (at 10 MHz)
	$\leq 112 \text{ dB/km}$ (at 16 MHz)
	$\leq 119 \text{ dB/km}$ (at 20 MHz)
Flame resistance	according to VDE 0472, Part 4, test type B
	according to IEC 60332-1
Ambient temperature (operation)	$-40 \text{ }^\circ\text{C} \dots 80 \text{ }^\circ\text{C}$ (cable, fixed installation)
	$-30 \text{ }^\circ\text{C} \dots 70 \text{ }^\circ\text{C}$ (Cable, flexible installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67

# SAC-5P-MSB/15,0-900/FSB SCO - Bus system cable



1518012

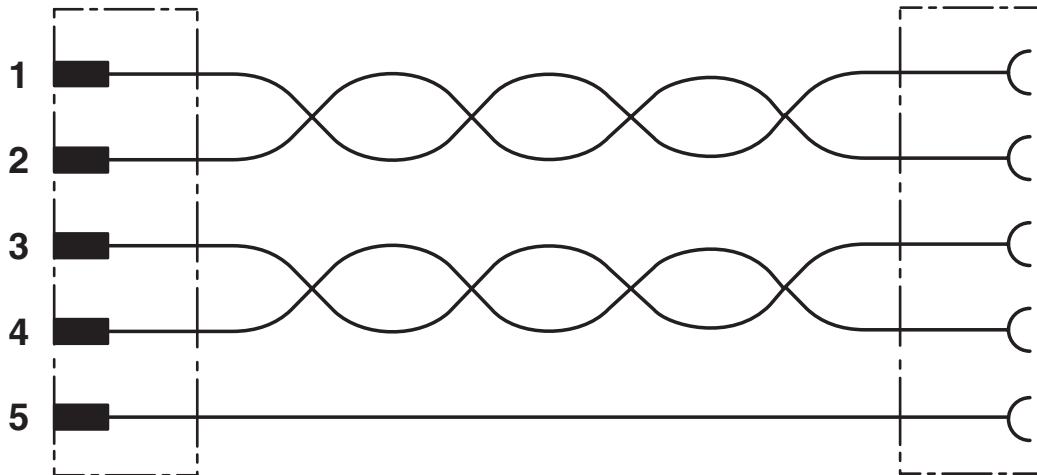
<https://www.phoenixcontact.com/us/products/1518012>

Ambient temperature (operation)

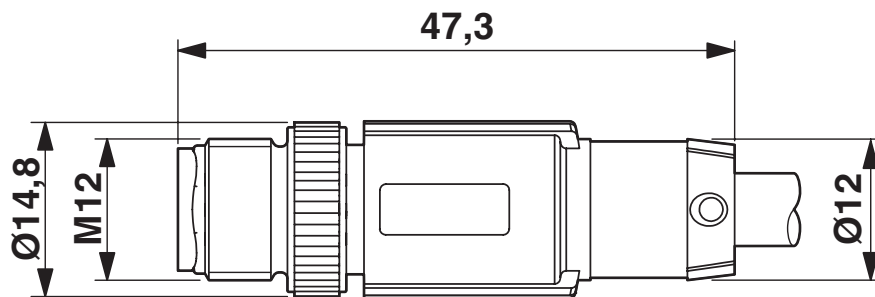
-25 °C ... 90 °C (Plug / socket)

Drawings

Circuit diagram



Dimensional drawing



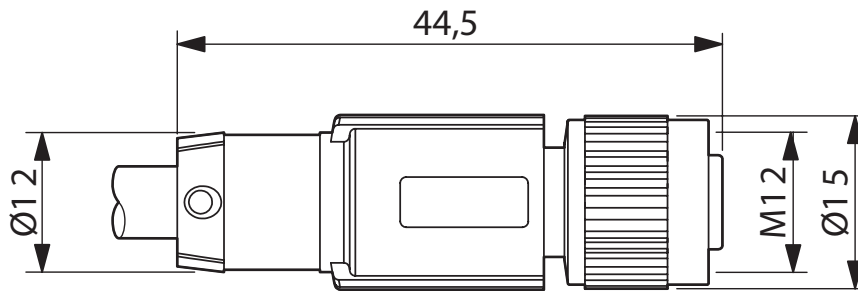
Plug, M12 x 1, straight, shielded

# SAC-5P-MSB/15,0-900/FSB SCO - Bus system cable

1518012

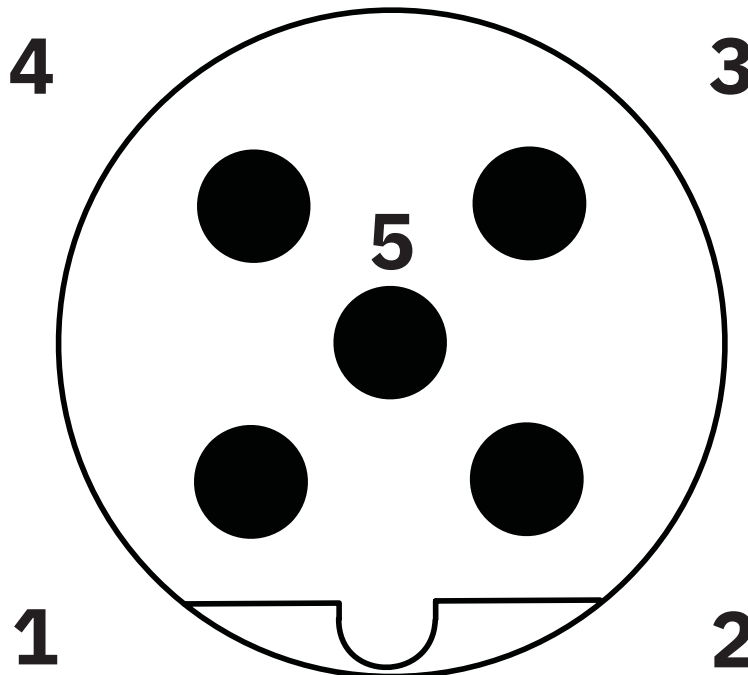
<https://www.phoenixcontact.com/us/products/1518012>

Dimensional drawing



M12 x 1 socket, straight, shielded

Schematic diagram

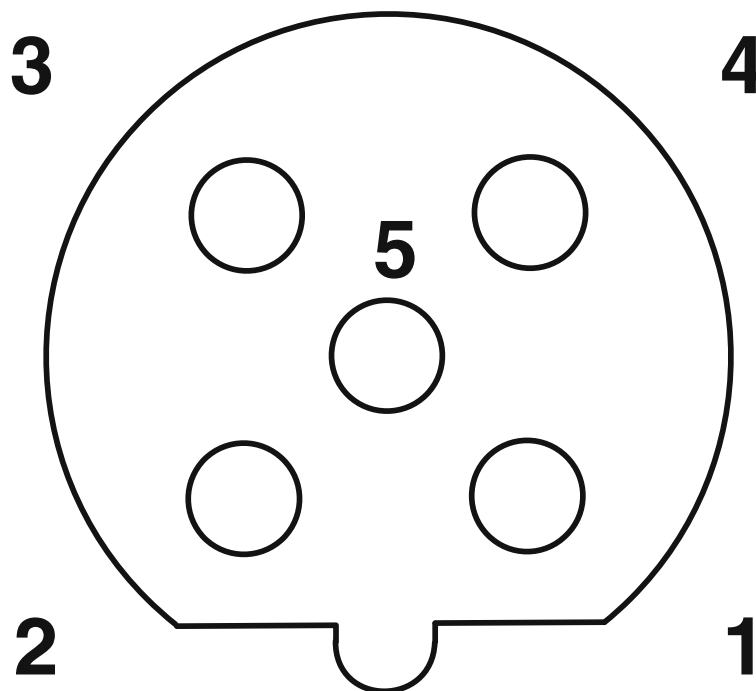


Pin assignment M12 male connector, 5-pos., B-coded, male side

1518012

<https://www.phoenixcontact.com/us/products/1518012>

Schematic diagram



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



# SAC-5P-MSB/15,0-900/FSB SCO - Bus system cable



1518012

<https://www.phoenixcontact.com/us/products/1518012>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1518012>



**EAC-RoHS**

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

# SAC-5P-MSB/15,0-900/FSB SCO - Bus system cable



1518012

<https://www.phoenixcontact.com/us/products/1518012>

## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC001855
----------	----------

### UNSPSC

UNSPSC 21.0	26121600
-------------	----------

# SAC-5P-MSB/15,0-900/FSB SCO - Bus system cable



1518012

<https://www.phoenixcontact.com/us/products/1518012>

## 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%
-------------------------------------	----------------------------

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)