

1517961
<https://www.phoenixcontact.com/us/products/1517961>

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 (Braided copper wires), Plug straight M12 SPEEDCON, coding: B, on Socket straight M12 SPEEDCON, coding: B, cable length: 0.5 m

Commercial data

Item number	1517961
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	BF1CKB
Catalog page	Page 198 (C-6-2019)
GTIN	4017918968083
Weight per piece (including packing)	74.8 g
Weight per piece (excluding packing)	72 g
Customs tariff number	85444290
Country of origin	PL

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



1517961

<https://www.phoenixcontact.com/us/products/1517961>

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	≥ 100 MΩ
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/ 0,5-900/FSB SCO - Bus system cable



1517961

<https://www.phoenixcontact.com/us/products/1517961>

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)

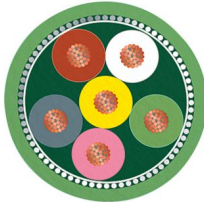
Connection 2

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

Cable/line

Cable length	0.5 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 ²
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 ²
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/ 0,5-900/FSB SCO - Bus system cable



1517961

<https://www.phoenixcontact.com/us/products/1517961>

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
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)
	$\geq 40 \text{ dB}$ (at 20 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 °C ... 80 °C (cable, fixed installation)
	-30 °C ... 70 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

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

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



1517961

<https://www.phoenixcontact.com/us/products/1517961>

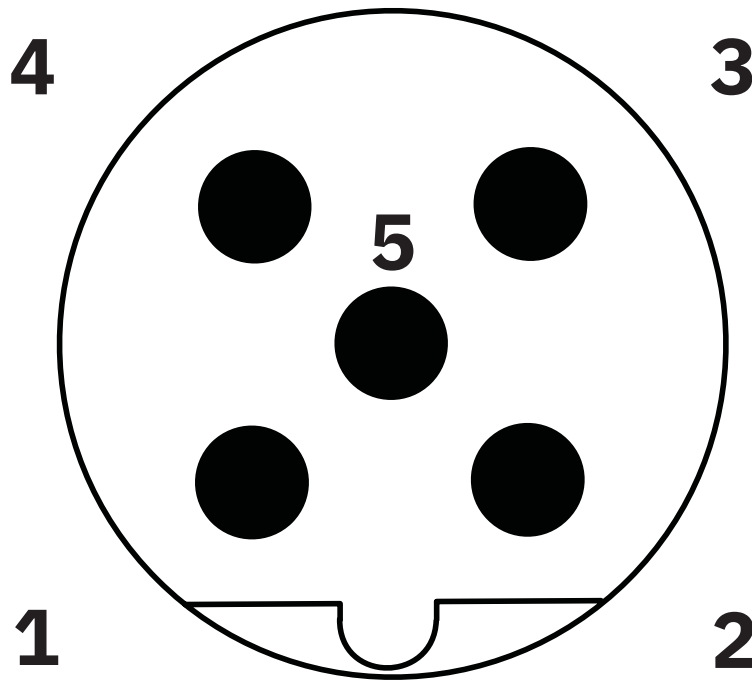
Drawings

Dimensional drawing



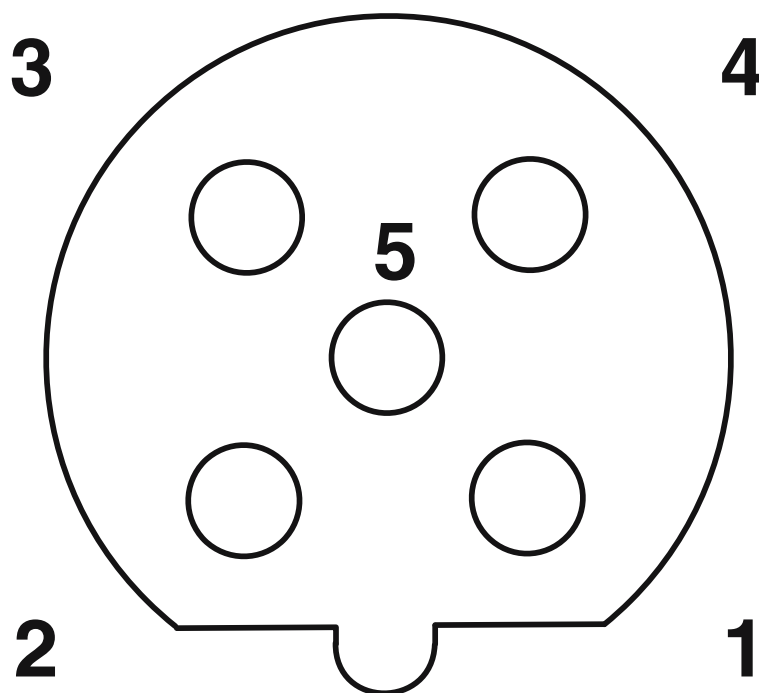
M12 x 1 socket, straight, shielded

Schematic diagram



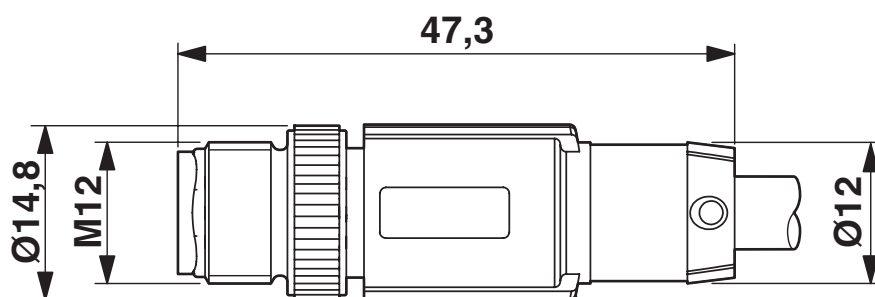
Pin assignment M12 male connector, 5-pos., B-coded, male side

Schematic diagram



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

Dimensional drawing

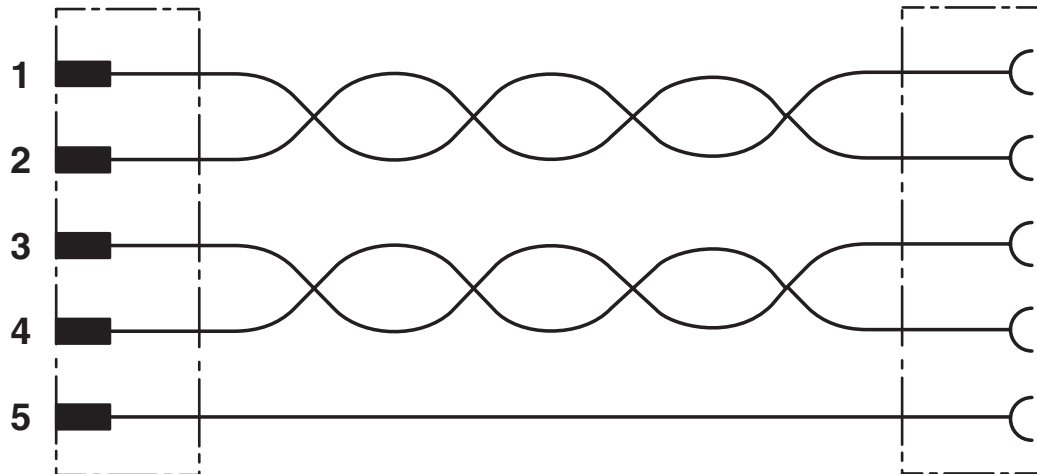


Plug, M12 x 1, straight, shielded

1517961

<https://www.phoenixcontact.com/us/products/1517961>

Circuit diagram



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



1517961

<https://www.phoenixcontact.com/us/products/1517961>

Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1517961>



EAC-RoHS

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

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



1517961

<https://www.phoenixcontact.com/us/products/1517961>

Classifications

ECLASS

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

ETIM

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

UNSPSC

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

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%