

# SAC-6P-10,0-970/FS SCO - Bus system cable



1428597

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Bus system cable, VARAN (100 Mbps), 6-position, SANTOPRENE halogen-free/TPE halogen-free, black RAL 9005, shielded, free cable end, on Socket straight M12 SPEEDCON, coding: A, cable length: 10 m

## Commercial data

Item number	1428597
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	BF1CMM
Catalog page	Page 324 (PC-2011)
GTIN	4046356322874
Weight per piece (including packing)	782 g
Weight per piece (excluding packing)	779 g
Country of origin	PL

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## Technical data

### Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	VARAN
Number of positions	6
No. of cable outlets	1
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Interfaces

Bus system	VARAN
Signal type/category	VARAN, 100 Mbps

### Signaling

Status display	No
Status display present	No

### Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	30 V AC
	30 V DC
Nominal current $I_N$	2 A
Transmission medium	Copper

### Material specifications

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

### Connection data

#### Pin assignment

Contact   Color (signal designation)   Contact (optional)	1 (Socket)
	4 (Socket)
	6 (Socket)   BU (Power)
	7 (Socket)   BN (Power)

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	5 (Socket)   GNWH (RD+)
	8 (Socket)   GN (RD-)
	2 (Socket)   OGWH (TD+)
	3 (Socket)   OG (TD-)

## Connector

### Connection 1

Type	free cable end
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### Connection 2

Type	free cable end free cable end
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## Cable/line

Cable length	10 m
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### VARAN [970]

Dimensional drawing	
Cable weight	81 kg/km
Number of positions	6
Shielded	yes
Cable type	VARAN [970]
Conductor structure	1x2xAWG22/19 + 1x4xAWG24/19
Conductor structure signal line	19x 0.13 mm
AWG signal line	24
Conductor cross section	4x 0.25 mm <sup>2</sup> (Signal line) 2x 0.38 mm <sup>2</sup> (Power supply)
Wire diameter incl. insulation	1.35 mm (Signal line) 1.5 mm (Power supply)
External cable diameter	7.80 mm ±0.2 mm
Outer sheath, material	SANTOPRENE halogen-free
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material, filler	Yarn
Material wire insulation	PP
Single wire, color	brown, blue, white/orange, white/green, green, orange
Type of pair shielding	Tinned copper braided shield, 95 % covering
Overall twist	1 star quad and 2 wires with 2 fillers

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Max. conductor resistance	77 $\Omega$ /m (Data cable)
Insulation resistance	5 G $\Omega$ *km (Data cable)
Wave impedance	100 $\Omega$ $\pm$ 15 %
Working capacitance	50 nF (Data cable)
Nominal voltage, cable	125 V (Data cable) 48 V (Power supply)
Test voltage	2000 V (Power supply) max. 700 V AC (Data cable)
Smallest bending radius, fixed installation	$\geq$ 93 mm
Smallest bending radius, movable installation	$\geq$ 93 mm
Max. bending cycles	3000000
Bending radius	93 mm
Traversing path	2 m
Traversing rate	1 m/s
Acceleration	2 m/s <sup>2</sup>
Halogen-free	in accordance with DIN EN 50267-2-1
Ambient temperature (operation)	-20 °C ... 80 °C (Cable)
Ambient temperature (installation)	0 °C ... 50 °C

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67

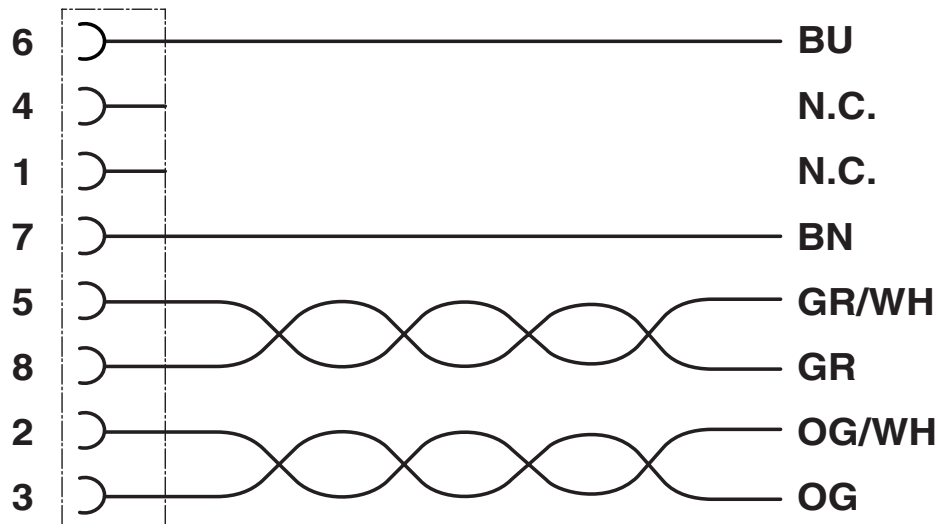
# SAC-6P-10,0-970/FS SCO - Bus system cable

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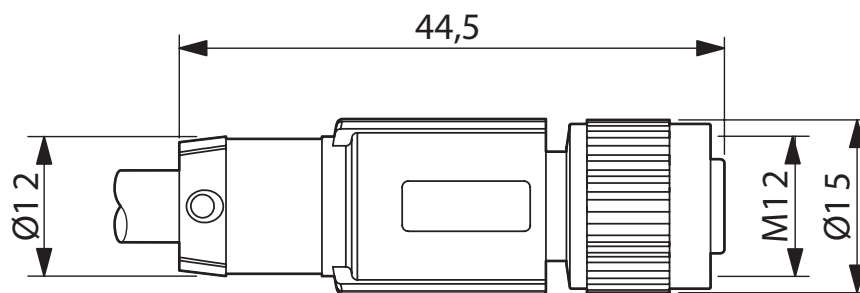
<https://www.phoenixcontact.com/us/products/1428597>

## Drawings

Circuit diagram



Dimensional drawing



M12 x 1 socket, straight, shielded

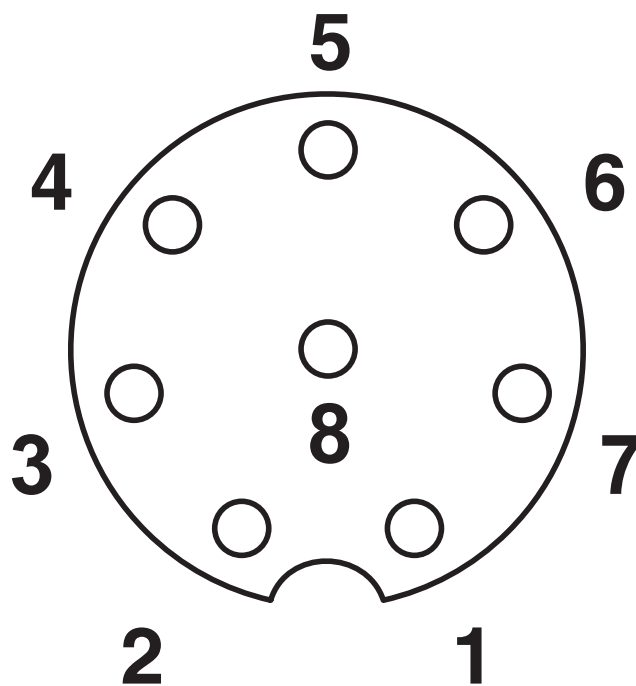
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Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

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## Approvals

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**EAC-RoHS**

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

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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	4.381 kg CO2e
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