

SAC-6P-MS/ 5,0-970/FS SCO - Bus system cable



1428665

<https://www.phoenixcontact.com/us/products/1428665>

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Bus system cable, VARAN (100 Mbps), 6-position, SANTOPRENE halogen-free/TPE halogen-free, black RAL 9005, shielded, Plug straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A, cable length: 5 m

Commercial data

Item number	1428665
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	BF1CMM
Catalog page	Page 324 (PC-2011)
GTIN	4046356322942
Weight per piece (including packing)	421.5 g
Weight per piece (excluding packing)	390 g
Country of origin	PL

1428665

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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	≥ 100 MΩ
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 (Plug) N.C. 1 (Socket)
	4 (Plug) N.C. 4 (Socket)
	6 (Plug) BU (Power) 6 (Socket)
	7 (Plug) BN (Power) 7 (Socket)

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1428665

<https://www.phoenixcontact.com/us/products/1428665>

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

Connector

Connection 1

Type	Plug straight M12 SPEEDCON
Number of positions	6
Locking type	SPEEDCON
Coding type	A (Standard)
Ambient temperature (operation)	-25 °C ... 90 °C

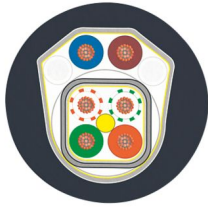
Connection 2

Type	Socket straight M12 SPEEDCON
Number of positions	6
Locking type	SPEEDCON
Coding type	A (Standard)
Ambient temperature (operation)	-25 °C ... 90 °C

Cable/line

Cable length	5 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 ² (Signal line) 2x 0.38 mm ² (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

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1428665

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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
Max. conductor resistance	77 Ω/m (Data cable)
Insulation resistance	5 GΩ*km (Data cable)
Wave impedance	100 Ω ±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	≥ 93 mm
Smallest bending radius, movable installation	≥ 93 mm
Max. bending cycles	3000000
Bending radius	93 mm
Traversing path	2 m
Traversing rate	1 m/s
Acceleration	2 m/s ²
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

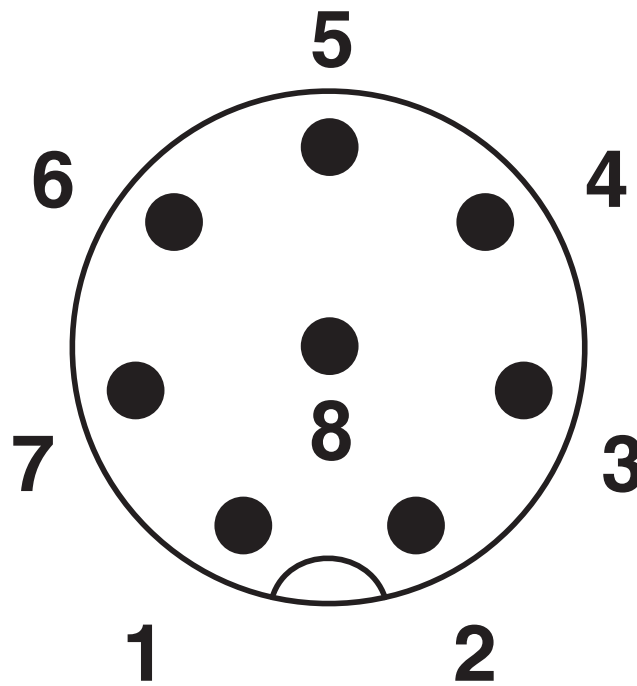
Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67

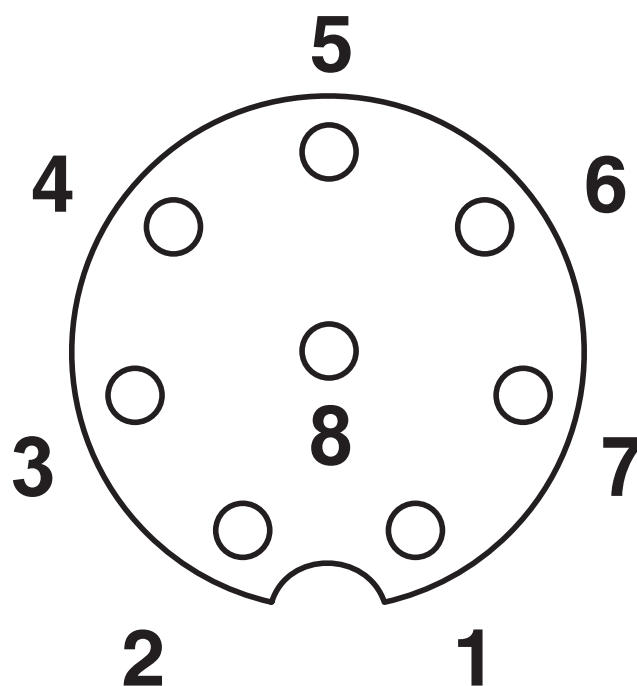
Drawings

Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

Schematic diagram



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

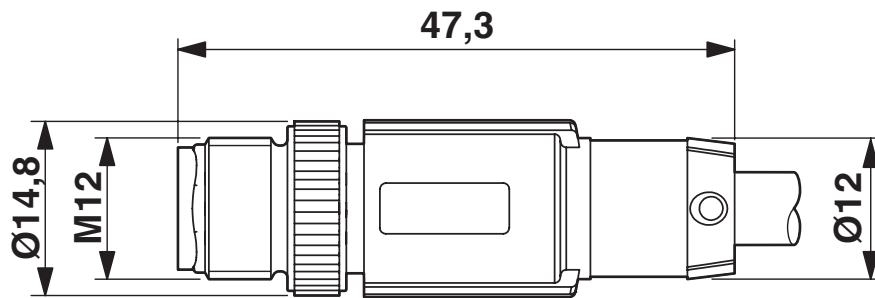
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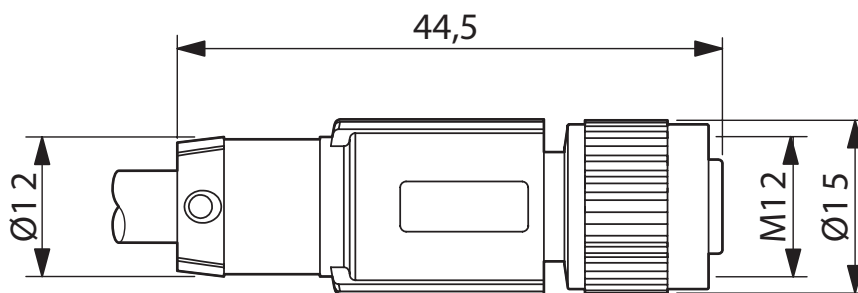
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Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

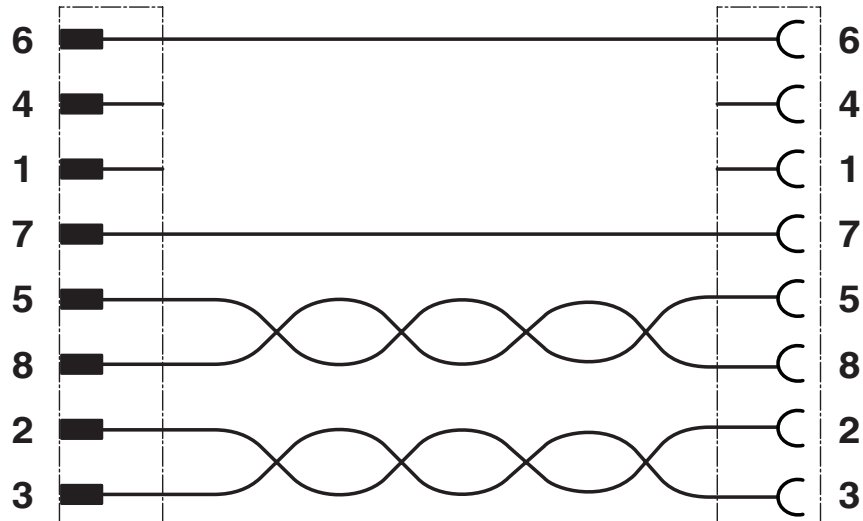
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Circuit diagram



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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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