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Bus system cable - SAC-6P-MR/ 2,0-970/FR SCO

1428694

https://www.phoenixcontact.com/gb/products/1428694

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Bus system cable, VARAN (100 Mbps), 6-position, SANTOPRENE halogen-free/TPE halogen-free, black RAL 9005, shielded, Plug angled M12 SPEEDCON, coding: A, on Socket angled M12 SPEEDCON, coding: A, cable length: 2 m

Commercial Data

Item number	1428694
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1CMM
Product Key	BF1CMM
Catalog Page	Page 324 (PC-2011)
GTIN	4046356322973
Weight per Piece (including packing)	207.922 g
Weight per Piece (excluding packing)	197.999 g
Customs tariff number	85444290
Country of origin	PL

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Technical Data

Product properties

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

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

Bus system	VARAN
Signal type/category	VARAN, 100 Mbps

LED signaling

Status display	No
Status display present	No

Electrical properties

Contact resistance	≤ 5 mΩ
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

Color Handle area	black
Flammability rating according to UL 94	HB
Sealing material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Cable gland material	Zinc die-cast, nickel-plated

Connection data

Pin assignment

Contact | Color (signal designation) | Contact (optional)	1 (Plug) = N.C. = 1 (Socket)
	2 (Plug) = N.C. = 2 (Socket)
	6 (Plug) = BU (Power) = 6 (Socket)

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	7 (Plug) = BN (Power) = 7 (Socket)
	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

Header 1

Head design	Plug
Head cable outlet	angled
Head thread type	M12
Head locking type	SPEEDCON
Coding	A

Head 2

Head design	Socket
Head cable outlet	angled
Head thread type	M12
Head locking type	SPEEDCON
Coding	A

Cable / line

Cable length	2 m
Cable weight	81 kg/km
Number of positions	6
Shielded	yes
Cable type	VARAN [970]
Conductor structure signal line	19x 0.13 mm
AWG signal line	24
Conductor cross section	4x 0.25 mm² (Signal line)
	2x 0.38 mm² (Power supply)
Wire diameter incl. insulation	1.35 mm (Signal line)
	1.5 mm (Power supply)
External cable diameter	7.8 mm ±0.2 mm
Outer sheath, material	SANTOPRENE halogen-free
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
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 %

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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
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

Cable structure

Signal type/category	VARAN, 100 Mbps

Ambient conditions

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

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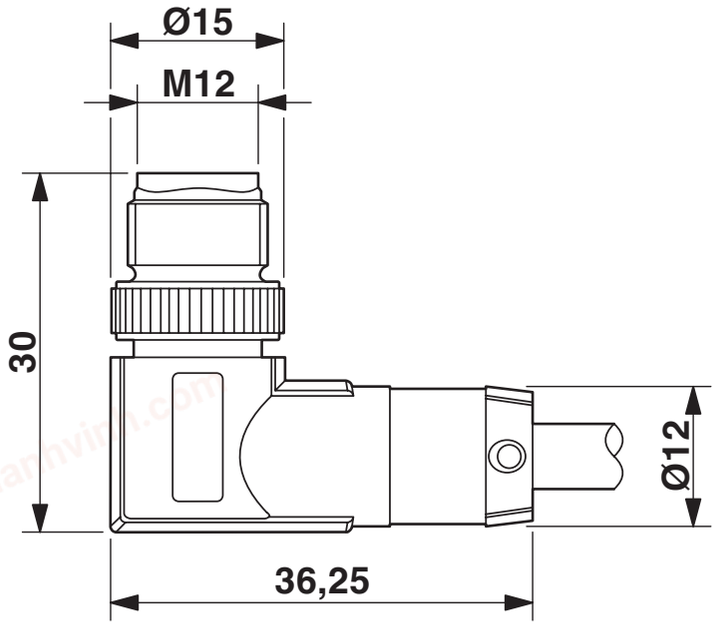
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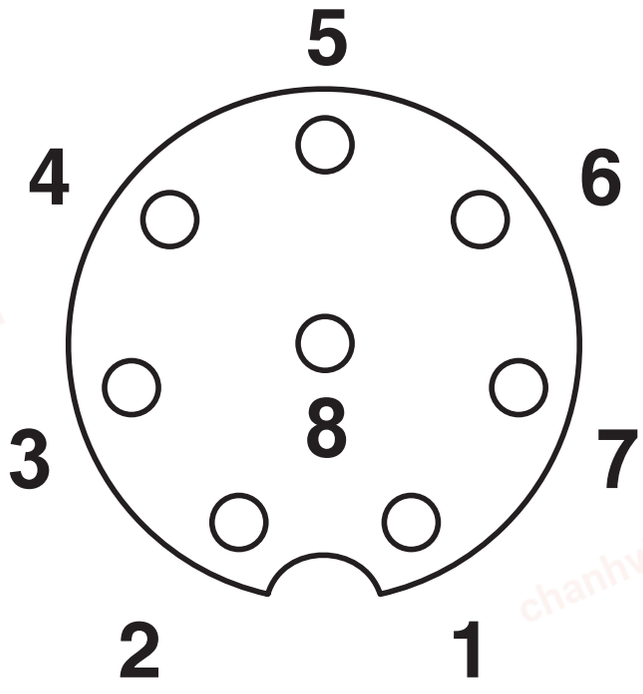
Drawings

Dimensional drawing



M12 x 1 male plug, angled, shielded

Schematic diagram



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

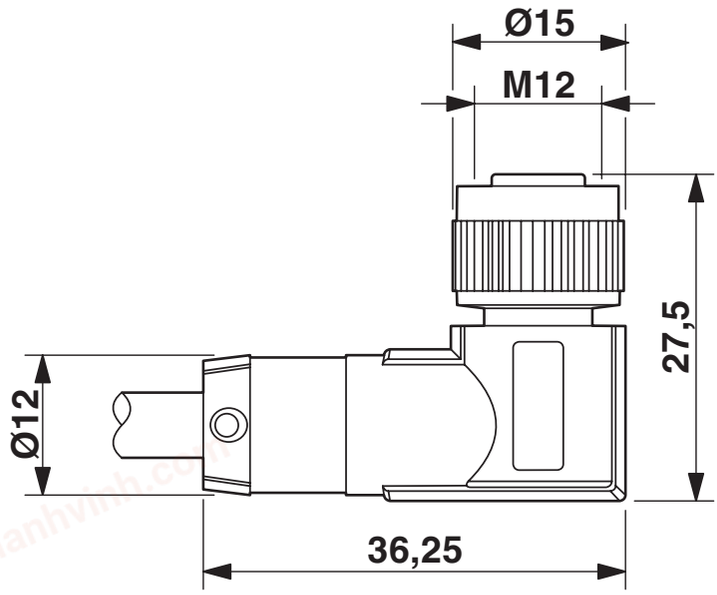
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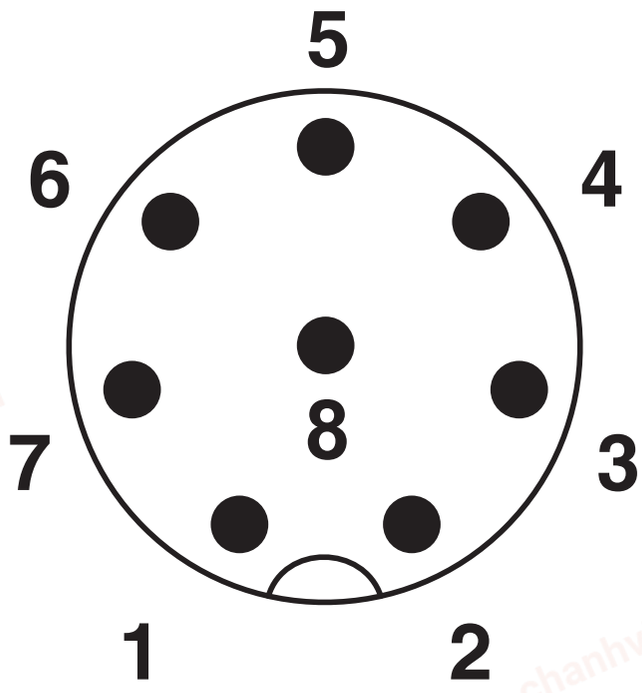
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Dimensional drawing



M12 x 1 socket, angled, shielded

Schematic diagram



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

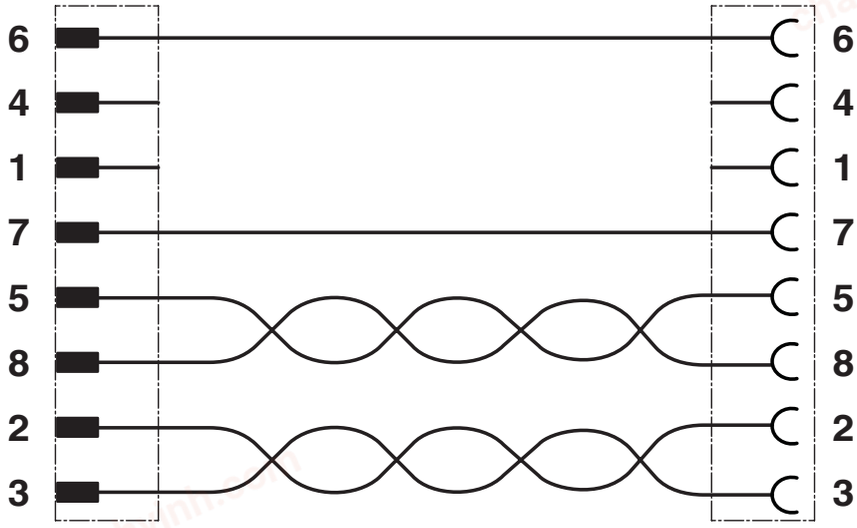
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Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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Approvals

EAC
Approval ID: RU C-DE.BL08.B.00286

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

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Classifications

ECLASS

ECLASS-9.0	27060308
ECLASS-10.0.1	27060308
ECLASS-11.0	27060307

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

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Environmental Product Compliance

REACh SVHC	Lead 7439-92-1

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads”

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