

Bus system cable - SAC-5P-M12MS/2,0-92X/M12FSSHOD - 1410467

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Bus system cable, CANopen[®], DeviceNet[™], 5-position, FRNC halogen-free, black, shielded, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 2 m, for outdoor applications, with high-grade steel knurl

Product Features

- Easy and safe: 100% electrically tested plug-in components
- Corrosion protection for all exposed metal parts, thanks to the use of stainless steel type 1.4404
- Robust throughout: resistant to oil, UV, and ozone, withstands temperatures from -40°C to +105°C
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	180.0 g
Country of origin	Poland

Technical data

Dimensions

Length of cable	2 m
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Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (Plug / socket)
	-40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4))
Degree of protection	IP65
	IP67
	IP68
	IP69K

General

Rated current at 40°C	4 A
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Technical data

General

Rated voltage	60 V
Number of positions	5
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Signal type/category	CANopen® DeviceNet™
Status display	No
Protective circuit/component	Unwired
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

Material

Flammability rating according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material of grip body	PP
Material, knurls	Stainless steel
Sealing material	FPM

Standards and Regulations

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Flammability rating according to UL 94	V0

Cable

Cable type	CAN bus/DeviceNet™, black
Cable type (abbreviation)	92X
Cable abbreviation	LI2XCHX02XS
UL AWM style	21281 (80°C/300 V)
Conductor cross section	2x 0.25 mm² (Signal) 2x 0.34 mm² (Power) 1x 0.38 mm² (Drain wire)
AWG signal line	24
AWG power supply	22
Conductor structure signal line	19x 0.13 mm
Conductor structure, voltage supply	19x 0.16 mm

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Technical data

Cable

Core diameter including insulation	1.9 mm (Signal)
	1.4 mm (Power)
Thickness, insulation	0.6 mm (Signal)
	0.3 mm (Power)
Wire colors	Red-black, blue-white
Twisted pairs	2 cores to the pair
Type of pair shielding	Aluminum-lined foil
Overall twist	2 pairs around a drain wire in the center to the core
Shielding	Tinned copper braided shield
Optical shield covering	70 %
External sheath, color	black
Outer sheath thickness	1.15 mm
External cable diameter D	6.9 mm ±0,3 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Cable weight	70 kg/km
Outer sheath, material	FRNC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 200 MΩ*km (at 20 °C)
Conductor resistance	90 Ω/km (Signal)
	55 Ω/km (Power)
Working capacitance	39.8 nF (at 1 kHz, core/core)
Wave impedance	120 Ω ±12 Ω (f = 1 MHz)
Signal runtime	4.46 ns/m
Nominal voltage, cable	≤ 300 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Flame resistance	According to IEC 60332-3-25 (Cat. D)
Halogen-free	yes
Resistance to oil	Yes
Other resistance	UV resistant
Ambient temperature (operation)	-40 °C ... 105 °C

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Classifications

eCl@ss

eCl@ss 4.1	27060306
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 8.0	27279218
eCl@ss 9.0	27060311

ETIM

ETIM 4.0	EC001855
ETIM 5.0	EC001855

Accessories

Accessories

Screwdriver tools

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

Adapter - SAC BIT M12-W14 - 1212513



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a hexagonal knurl wrench size of 14 mm, with 4 mm hexagonal drive

Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

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Accessories

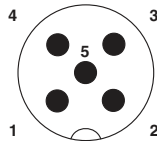
Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

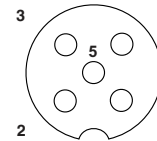
Drawings

Schematic diagram



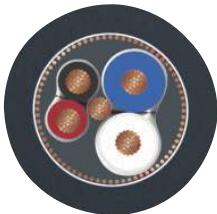
Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



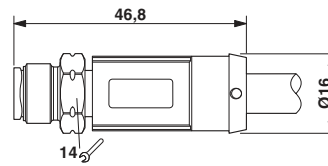
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Cable cross section



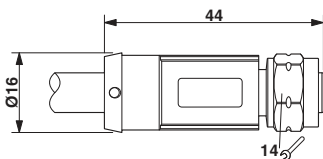
CAN bus/DeviceNet™, black [92X]

Dimensional drawing



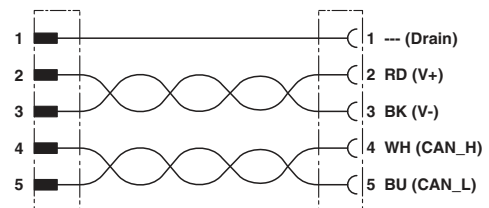
M12 x 1 plug, straight

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

