

## Bus system cable - SAC-5P-10,0-92X/M12FS SH OD - 1410496

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Bus system cable, CANopen®, DeviceNet™, 5-position, FRNC halogen-free, black, shielded, free cable end, on Socket straight M12, A-coded, Cable length: 10 m, for outdoor applications, With high-grade steel knurl

### Why buy this product

- ✓ 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
GTIN	 4 046356 899420
Weight per Piece (excluding packing)	687.2 g
Custom tariff number	85444290
Country of origin	Poland
Note	Made to Order (non-returnable)

### Technical data

#### Dimensions

Length of cable	10 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

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### Technical data

#### General

Rated current at 40°C	4 A
Rated voltage	60 V
Number of positions	5
Contact resistance	≤ 5 mΩ
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
Pollution degree	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

#### Material

Inflammability class according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material of grip body	PP
Material, knurls	High-grade steel
Sealing material	FPM

#### 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
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

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### Technical data

#### Cable

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

### Classifications

#### eCl@ss

eCl@ss 4.1	27060306
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 8.0	27060308

#### ETIM

ETIM 4.0	EC001855
ETIM 5.0	EC001855

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### 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

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Adapter - SAC BIT M12-W14 - 1212513



SAC nut, for assembling M12 connectors with hexagonal high-grade steel knurl, 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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Torque screwdriver - TSD-M 1,2NM - 1212224

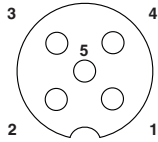


Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

### Drawings

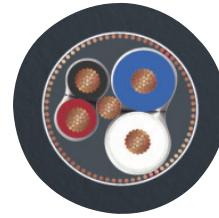
# Bus system cable - SAC-5P-10,0-92X/M12FS SH OD - 1410496

Schematic diagram



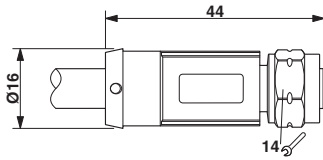
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Cable cross section



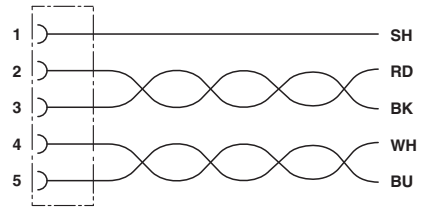
CAN bus/DeviceNet™, black [92X]

Dimensioned drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 socket