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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Sensor/Actuator cable - SAC-4P-MS/0,5-647/FS SCO BK - 1410225

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Sensor/Actuator cable, 4-position, TPE, yellow RAL 1021, Plug straight M12 SPEEDCON, A-coded, on Socket straight M12 SPEEDCON, A-coded, Cable length: 0.5 m



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	60.0 g
Country of origin	United States

### Technical data

#### Dimensions

Length of cable	0.5 m
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#### Ambient conditions

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

#### General

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	4
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	Unwired
Overvoltage category	II
Degree of pollution	3
Torque	0.4 Nm (M12 connector)

## Sensor/Actuator cable - SAC-4P-MS/0,5-647/FS SCO BK - 1410225

### Technical data

#### Material

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

#### Standards and Regulations

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

#### Cable

Cable type	TPE yellow 105 °C
Cable type (abbreviation)	647
UL AWM style	20327 (105°C/300 V)
AWG signal line	18
Conductor structure signal line	41x 0.16 mm
Core diameter including insulation	1.8 mm
Thickness, insulation	0.23 mm
Overall twist	4 wires, twisted
External sheath, color	yellow
Outer sheath thickness	0.89 mm
External cable diameter D	6 mm ±0.25 mm
Cable weight	31 kg/km
Outer sheath, material	TPE
Material conductor insulation	PVC
Nominal voltage, cable	300 V
Flame resistance	According to FT1
Resistance to oil	OIL RES I according to UL 2256
Other resistance	UV resistant (720 h) to UL 2256
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation)

### Classifications

#### eCl@ss

eCl@ss 5.1	27061801
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## Sensor/Actuator cable - SAC-4P-MS/0,5-647/FS SCO BK - 1410225

### Classifications

eCl@ss

eCl@ss 6.0	27279218
eCl@ss 8.0	27279218
eCl@ss 9.0	27060311

### Accessories

#### Accessories

##### Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 sockets



Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



##### Safety locking

Locking clip - SAC-M12-EXCLIP-M - 1558988



Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

Locking clip - SAC-M12-EXCLIP-F - 1558991



Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools



## Sensor/Actuator cable - SAC-4P-MS/0,5-647/FS SCO BK - 1410225

### Accessories

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#### 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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Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

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#### 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



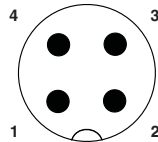
Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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### Drawings

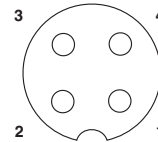
## Sensor/Actuator cable - SAC-4P-MS/0,5-647/FS SCO BK - 1410225

Schematic diagram



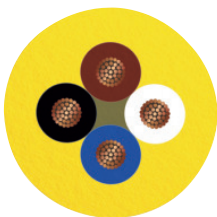
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Schematic diagram



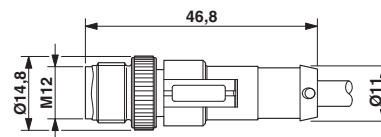
Pin assignment M12 socket, 4-pos., A-coded, view female side

Cable cross section



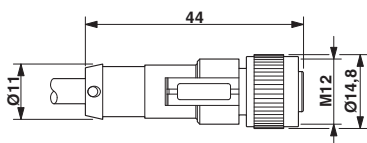
TPE yellow 105 °C [647]

Dimensional drawing



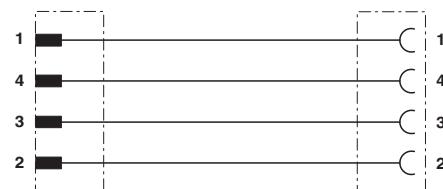
M12 x 1 plug, straight

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket