

## Sensor/Actuator cable - SAC-5P-MS/0,5-647/FS SCO BK - 1413841

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Sensor/Actuator cable, 5-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) | 1.0 g         |
| Country of origin                    | United States |

### Technical data

#### Dimensions

|                 |       |
|-----------------|-------|
| Length of cable | 0.5 m |
|-----------------|-------|

#### 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                | 60 V                          |
| Number of positions          | 5                             |
| 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)        |

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### 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                      | 5 wires around filler to the core             |
| External sheath, color             | yellow  |
| Outer sheath thickness             | 0.89 mm                                       |
| External cable diameter D          | 6.6 mm ±0.25 mm                               |
| Cable weight                       | 39 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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## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 6.0 | 27061801 |
| eCl@ss 8.0 | 27279218 |
| eCl@ss 9.0 | 27060311 |

### ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC002585 |
|----------|----------|

## 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

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### Accessories

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

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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



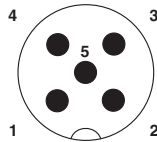
Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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## Accessories

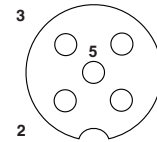
### Drawings

Schematic diagram



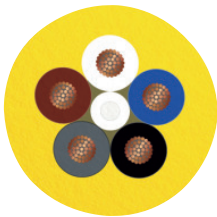
Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



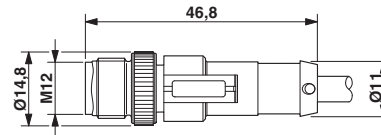
Pin assignment M12 socket, 5-pos., B-coded, female side

Cable cross section



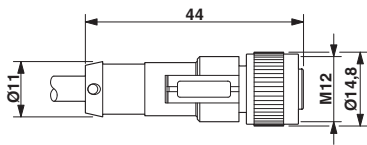
TPE yellow 105 °C [647]

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