

## Sensor/actuator cable - SAC-5P- 5,0-542/ FR SCO BK - 1406171

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Sensor/actuator cable, 5-position, PVC, yellow, free cable end, on Socket angled M12 SPEEDCON, A-coded, cable length: 5 m



### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 046356 798792 |
| GTIN                                 | 4046356798792                                                                                           |
| Weight per Piece (excluding packing) | 250.000 g                                                                                               |
| Custom tariff number                 | 85444290                                                                                                |
| Country of origin                    | United States                                                                                           |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 5 m |
|-----------------|-----|

#### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
| Degree of protection            | IP65                             |
|                                 | IP67                             |
|                                 | IP68                             |

#### General

|                       |         |
|-----------------------|---------|
| Rated current at 40°C | 4 A     |
| Rated voltage         | 48 V AC |
|                       | 60 V DC |

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### Technical data

#### General

|                              |                               |
|------------------------------|-------------------------------|
| Number of positions          | 5                             |
| Insulation resistance        | $\geq 100 \text{ M}\Omega$    |
| 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                             |
| Insertion/withdrawal cycles  | $\geq 100$                    |
| Torque                       | 0.4 Nm (M12 connector)        |

#### 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                                    | PVC yellow 105 °C                 |
| Cable type (abbreviation)                     | 542                               |
| UL AWM style                                  | 2517 (105 °C / 300 V)             |
| AWG signal line                               | 22                                |
| Conductor structure signal line               | 30x 1.30 mm                       |
| Core diameter including insulation            | 1.27 mm $\pm 0.03$ mm             |
| Wire colors                                   | Brown, blue, black, white, gray   |
| Overall twist                                 | 5 wires around filler to the core |
| External sheath, color                        | yellow                            |
| External cable diameter D                     | 5.4 mm $\pm 0.2$ mm               |
| Minimum bending radius, flexible installation | 8 x D                             |
| Cable weight                                  | 43 kg/km                          |
| Outer sheath, material                        | PVC                               |

# Sensor/actuator cable - SAC-5P- 5,0-542/ FR SCO BK - 1406171

## Technical data

### Cable

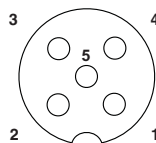
|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Material, filler                | PP                                              |
| Material conductor insulation   | PVC                                             |
| Conductor material              | Tin-plated Cu litz wires                        |
| Insulation resistance           | $\geq$ (550 M Ohms/m @ 500V)                    |
| Conductor resistance            | max. 50.5 $\Omega$ /km (20 °C)                  |
| Nominal voltage, cable          | 300 V                                           |
| Special properties              | UL standards PLTC and ITC                       |
| Flame resistance                | FT4                                             |
| Other resistance                | UV resistant                                    |
| Ambient temperature (operation) | -30 °C ... 105 °C (cable, fixed installation)   |
|                                 | -5 °C ... 105 °C (cable, flexible installation) |

### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

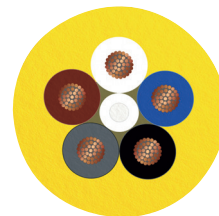
## Drawings

Schematic diagram



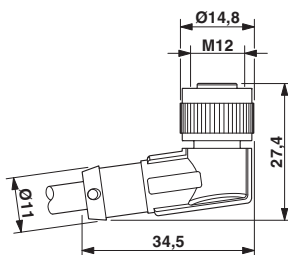
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Cable cross section



PVC yellow 105 °C [542]

Dimensional drawing



M12 x 1 socket, angled

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

## Sensor/actuator cable - SAC-5P- 5,0-542/ FR SCO BK - 1406171

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061800 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |
| eCl@ss 9.0 | 27060311 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |

### Approvals

#### Approvals

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#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

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#### Ex Approvals

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#### Approval details

## Sensor/actuator cable - SAC-5P- 5,0-542/ FR SCO BK - 1406171

### Approvals

|                    |                                                                                   |                                                                                                                                                       |               |
|--------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL Listed          |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
|                    |                                                                                   |                                                                                                                                                       |               |
| Nominal voltage UN |                                                                                   | 125 V                                                                                                                                                 |               |
| Nominal current IN |                                                                                   | 4 A                                                                                                                                                   |               |

|                    |                                                                                   |                                                                                                                                                       |               |
|--------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| cUL Listed         |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
|                    |                                                                                   |                                                                                                                                                       |               |
| Nominal voltage UN |                                                                                   | 125 V                                                                                                                                                 |               |
| Nominal current IN |                                                                                   | 4 A                                                                                                                                                   |               |

|     |                                                                                    |                          |  |
|-----|------------------------------------------------------------------------------------|--------------------------|--|
| EAC |  | RU C-<br>DE.AI30.B.00767 |  |
|-----|------------------------------------------------------------------------------------|--------------------------|--|

|              |                                                                                     |  |  |
|--------------|-------------------------------------------------------------------------------------|--|--|
| cULus Listed |  |  |  |
|--------------|-------------------------------------------------------------------------------------|--|--|

### Accessories

#### Accessories

#### Protective cap

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

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



#### Safety locking

## Sensor/actuator cable - SAC-5P- 5,0-542/ FR SCO BK - 1406171

### 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

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