

## Sensor/Actuator cable - SAC-5P-MR/ 1,5-542/ FR SCO BK - 1406162


Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Sensor/Actuator cable, 5-position, Variable cable type, Plug angled M12-SPEEDCON, A-coded, on Socket angled M12-SPEEDCON, A-coded, Cable length: 1.5 m



### Key commercial data

|                      |                                                                                                         |
|----------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit         | 1 PCE                                                                                                   |
| GTIN                 | <br>4 046356 798884 |
| Custom tariff number | 85444290                                                                                                |
| Country of origin    | UNITED STATES                                                                                           |

### Technical data

#### Dimensions

|                 |       |
|-----------------|-------|
| Length of cable | 1.5 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         | 60 V                                  |
| Number of positions   | 5                                     |
| Contact resistance    | ≤ 5 mΩ                                |
| Insulation resistance | ≥ 100 MΩ                              |
| Standards/regulations | M12 plug-in connector IEC 61076-2-101 |

## Sensor/Actuator cable - SAC-5P-MR/ 1,5-542/ FR SCO BK - 1406162

### Technical data

#### General

|                             |                                             |
|-----------------------------|---------------------------------------------|
| Coding                      | A - standard                                |
| Surge voltage category      | II                                          |
| Pollution degree            | 3                                           |
| Insertion/withdrawal cycles | ≥ 100                                       |
| Torque                      | 0.4 Nm (M12 plug-in connector)              |
| 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                                         |
| Status display              | No                                          |

#### Line characteristics

|                                               |                                               |
|-----------------------------------------------|-----------------------------------------------|
| Cable type                                    | PVC yellow 105 °C                             |
| Cable type (abbreviation)                     | 542                                           |
| UL AWM style                                  | 2517 (105°C/300 V)                            |
| AWG signal line                               | 22                                            |
| Core diameter including insulation            | 1.27 mm ±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 ± 0.2 mm                               |
| Minimum bending radius, flexible installation | 8 x D                                         |
| Cable weight                                  | 43 kg/km                                      |
| Outer sheath, material                        | PVC                                           |
| Material, filler                              | PP                                            |
| Material conductor insulation                 | PVC                                           |
| Conductor material                            | Tin-plated Cu litz wires                      |
| Nominal voltage, cabel                        | 300 V                                         |
| Special properties                            | UL standards PLTC and ITC                     |
| Other resistance                              | UV resistant                                  |
| Ambient temperature (operation)               | -30 °C ... 105 °C (cable, fixed installation) |

### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
|------------|----------|

# Sensor/Actuator cable - SAC-5P-MR/ 1,5-542/ FR SCO BK - 1406162

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

### UNSPSC

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

## Approvals

### Approvals

---

#### Approvals

UL Listed / cUL Listed / cULus Listed

---

#### Ex Approvals

---

#### Approvals submitted

---

### Approval details

|                    |     |
|--------------------|-----|
| UL Listed          |     |
| Nominal current IN | 4 A |

## Sensor/Actuator cable - SAC-5P-MR/ 1,5-542/ FR SCO BK - 1406162

### Approvals

|                    |       |
|--------------------|-------|
| Nominal voltage UN | 125 V |
|--------------------|-------|

|                    |       |
|--------------------|-------|
| cUL Listed         |       |
| Nominal current IN | 4 A   |
| Nominal voltage UN | 125 V |

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

### Accessories

#### Accessories

#### Fuse

Fuse clip - SAC-M12-EXCLIP-M - 1558988



Fuse clip for the pin side of various M12 sensor/actuator connectors prevents plug-in connections being interrupted without using a tool

Fuse clip - SAC-M12-EXCLIP-F - 1558991



Fuse clip for the socket side of various M12 sensor/actuator connectors prevents plug-in connections being interrupted without using a tool

#### Protection and sealing elements

## Sensor/Actuator cable - SAC-5P-MR/ 1,5-542/ FR SCO BK - 1406162

### Accessories

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



### Tools

Torque screwdriver - TSD 04 SAC - 1208429



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

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



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

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

# Sensor/Actuator cable - SAC-5P-MR/ 1,5-542/ FR SCO BK - 1406162

## Accessories

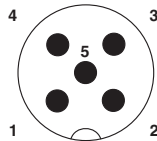
Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

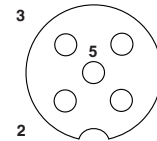
## Drawings

Schematic diagram



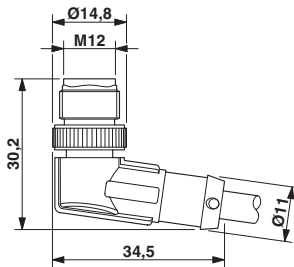
Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



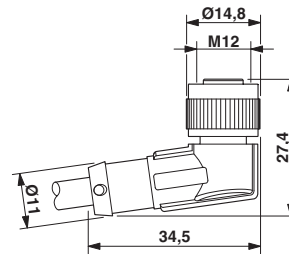
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Dimensioned drawing



M12 x 1 male plug, angled

Dimensioned drawing



M12 x 1 socket, angled

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

