

# Sensor/Actuator cable - SAC-4P-M8MS/1,5-542/M8FR SH BK - 1406003

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, 4-position, PVC, yellow, shielded, Plug straight M8, on Socket angled M8, Cable length: 1.5 m



## Key commercial data

|                      |          |
|----------------------|----------|
| Packing unit         | 1        |
| GTIN                 |          |
| Custom tariff number | 85444290 |

## 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                             |

### General

|                              |                              |
|------------------------------|------------------------------|
| Rated current at 40°C        | 4 A                          |
| Rated voltage                | 30 V                         |
| Number of positions          | 4                            |
| Contact resistance           | ≤ 5 mΩ                       |
| Insulation resistance        | ≥ 100 MΩ                     |
| Coding                       | A - standard                 |
| Standards/regulations        | M8 connector IEC 61076-2-104 |
| Status display               | No                           |
| Protective circuit/component | Unwired                      |
| Surge voltage category       | II                           |
| Pollution degree             | 3                            |

# Sensor/Actuator cable - SAC-4P-M8MS/1,5-542/M8FR SH BK - 1406003

## Technical data

### General

|                             |                        |
|-----------------------------|------------------------|
| Insertion/withdrawal cycles | ≥ 100                  |
| Torque                      | 0.2 Nm (M8 connectors) |

### Material

|   |   |
|---|---|
| Inflammability class 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   |

### Cable

|   |   |
|---|---|
| Cable type                                    | PVC yellow 105 °C                             |
| Cable type (abbreviation)                     | 542   |
| UL AWM style                                  | 2517 (105°C/300 V)                            |
| AWG signal line                               | 24  |
| Core diameter including insulation            | 1.12 mm ±0.03 mm                              |
| Wire colors                                   | brown, blue, black, white                     |
| Overall twist                                 | 4 wires, twisted                              |
| Shielding                                     | Tinned copper braided shield                  |
| Optical shield covering                       | 85 %  |
| External sheath, color                        | yellow  |
| External cable diameter D                     | 4.9 mm ±0.2 mm                                |
| Minimum bending radius, flexible installation | 12 x D  |
| Cable weight                                  | 37 kg/km                                      |
| Outer sheath, material                        | PVC   |
| Material conductor insulation                 | PVC   |
| Conductor material                            | Tin-plated Cu litz wires                      |
| Nominal voltage, cable                        | 300 V   |
| Other resistance                              | UV resistant                                  |
| Ambient temperature (operation)               | -30 °C ... 105 °C (cable, fixed installation) |

## Classifications

### eCl@ss

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

# Sensor/Actuator cable - SAC-4P-M8MS/1,5-542/M8FR SH BK - 1406003

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 8.0 | 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   |
| Nominal voltage UN | 125 V |

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

## Sensor/Actuator cable - SAC-4P-M8MS/1,5-542/M8FR SH BK - 1406003

### Approvals

cULus Listed 

### Accessories

#### Accessories

#### Conductor marking

Insert label - PABA WH/15 - 1013151



Insert label, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Insert label - PABA YE/15 - 1013698



Insert label, Strip, yellow, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Insert label - PABA RD/15 - 1013944



Insert label, Strip, red, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

#### Marker carrier cable

Conductor marker carrier - PATO 2/15 - 1013122



Conductor marker carrier, transparent, Unlabeled, Mounting type: Clip on, Cable diameter: 2.8-4.4 mm, Lettering field: 4 x 15 mm

## Sensor/Actuator cable - SAC-4P-M8MS/1,5-542/M8FR SH BK - 1406003

### Accessories

Conductor marker carrier - PATO 3/15 - 1013135



Conductor marker carrier, transparent, Unlabeled, Mounting type: Clip on, Cable diameter: 4.4-6.7 mm, Lettering field: 4 x 15 mm

Conductor marker carrier - PATO 4/15 - 1013148



Conductor marker carrier, transparent, Unlabeled, Mounting type: Clip on, Cable diameter: 6.7-10 mm, Lettering field: 4 x 15 mm

### Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

### Protective cap

Sealing cap - PROT-M 8 FS-PA-CHAIN - 1430857

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 plugs



Screw plug - PROT-M 8 MS-PA-CHAIN - 1430860

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 sockets



### Screwdriver tools

# Sensor/Actuator cable - SAC-4P-M8MS/1,5-542/M8FR SH BK - 1406003

## Accessories

Tool - SAC BIT M8-D10 - 1208461



Nut for assembling sensor/actuator cables with M8 connector and for M8 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

## Torque tool

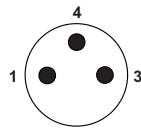
Torque screwdriver - TSD 02 SAC - 1208487



Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors

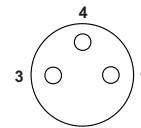
## Drawings

Schematic diagram



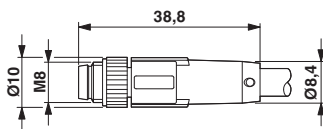
Pin assignment M8 plug, 3-pos., view male side

Schematic diagram



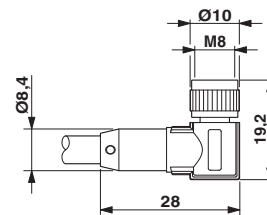
Pin assignment M8 socket, 3-pos., view female side

Dimensioned drawing



Plug M8 x 1, straight, shielded

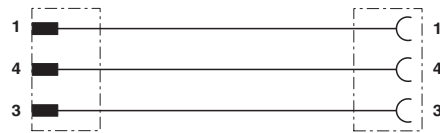
Dimensioned drawing



Socket M8 x 1, angled, shielded

## Sensor/Actuator cable - SAC-4P-M8MS/1,5-542/M8FR SH BK - 1406003

Circuit diagram



Contact assignment of M8 plugs/sockets