

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

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 documentation. Our general terms of use for downloads are valid.



Sensor/actuator cable, 4-position, PVC, yellow, shielded, free cable end, on Socket straight M8, coding: A, cable length: 10 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1406016                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF1                            |
| Product key                          | AF1IBB                         |
| GTIN                                 | 4046356800143                  |
| Weight per piece (including packing) | 390 g                          |
| Weight per piece (excluding packing) | 366.1 g                        |
| Customs tariff number                | 85444290                       |
| Country of origin                    | US                             |

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Application          | Standard, U.S. cables |
| Number of positions  | 4                     |
| No. of cable outlets | 1                     |
| Shielded             | yes                   |
| Coding               | A                     |

### Insulation characteristics

|                      |    |
|----------------------|----|
| Overvoltage category | II |
| Degree of pollution  | 3  |

### Material specifications

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Flammability rating according to UL 94 | HB                                          |
| Seal material                          | NBR                                         |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Contact material                       | CuSn                                        |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | TPU GF                                      |
| Material for screw connection          | Zinc die-cast, nickel-plated                |
| Outer sheath, material                 | PVC                                         |

### Electrical properties

|                       |                            |
|-----------------------|----------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 48 V AC                    |
|                       | 60 V DC                    |
| Nominal current $I_N$ | 4 A                        |

### Mechanical properties

#### Mechanical data

|                             |            |
|-----------------------------|------------|
| Insertion/withdrawal cycles | $\geq 100$ |
|-----------------------------|------------|

### Signaling

|                        |    |
|------------------------|----|
| Status display         | no |
| Status display present | No |

### Connection data

#### Conductor connection

|                   |                        |
|-------------------|------------------------|
| Tightening torque | 0.2 Nm (M8 connectors) |
|-------------------|------------------------|

### Connector

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## Connection 1

|      |                |
|------|----------------|
| Type | free cable end |
|------|----------------|

## Connection 2

|                     |                    |
|---------------------|--------------------|
| Type                | Socket straight M8 |
| Number of positions | 4                  |
| Coding type         | A                  |

## Cable/line

|              |      |
|--------------|------|
| Cable length | 10 m |
|--------------|------|

## PVC yellow 105 °C [542]

|                                               |                                                                                     |
|-----------------------------------------------|-------------------------------------------------------------------------------------|
| Dimensional drawing                           |  |
| Cable weight                                  | 37 kg/km                                                                            |
| UL AWM Style                                  | 2517 (105 °C / 300 V)                                                               |
| Number of positions                           | 4                                                                                   |
| Shielded                                      | yes                                                                                 |
| Cable type                                    | PVC yellow 105 °C [542]                                                             |
| Conductor structure signal line               | 32x 1.10 mm                                                                         |
| AWG signal line                               | 24                                                                                  |
| Wire diameter incl. insulation                | 1.12 mm ±0.03 mm                                                                    |
| External cable diameter                       | 4.90 mm ±0.2 mm                                                                     |
| Outer sheath, material                        | PVC                                                                                 |
| External sheath, color                        | yellow                                                                              |
| Conductor material                            | Tin-plated Cu litz wires                                                            |
| Material wire insulation                      | PVC                                                                                 |
| Single wire, color                            | brown, blue, black, white                                                           |
| Overall twist                                 | 4 wires, twisted                                                                    |
| Optical shield covering                       | 85 %                                                                                |
| Max. conductor resistance                     | max. 79.7 Ω/km (20 °C)                                                              |
| Insulation resistance                         | ≥ (550 M Ohms/m @ 500V)                                                             |
| Nominal voltage, cable                        | 300 V                                                                               |
| Minimum bending radius, flexible installation | 12 x D                                                                              |
| Smallest bending radius, movable installation | 59 mm                                                                               |
| Flame resistance                              | FT4                                                                                 |
| Other resistance                              | UV resistant                                                                        |
| Ambient temperature (operation)               | -30 °C ... 105 °C (cable, fixed installation)                                       |

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M8 connector    |
| Standards/specifications | IEC 61076-2-104 |

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

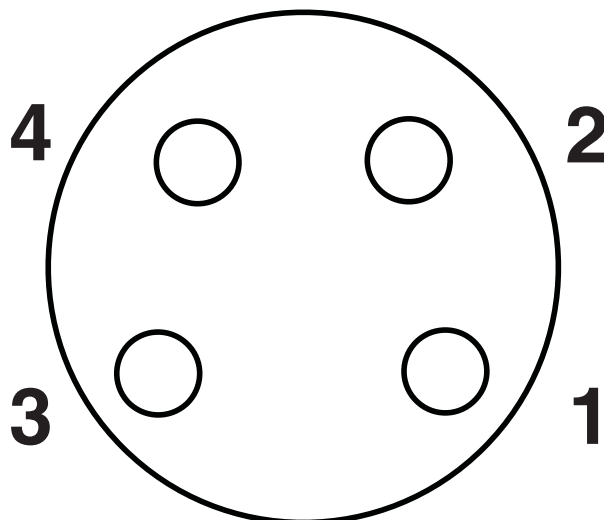
## Drawings

Dimensional drawing



Socket M8 x 1, straight

Schematic diagram



Pin assignment M8 socket, 4-pos.

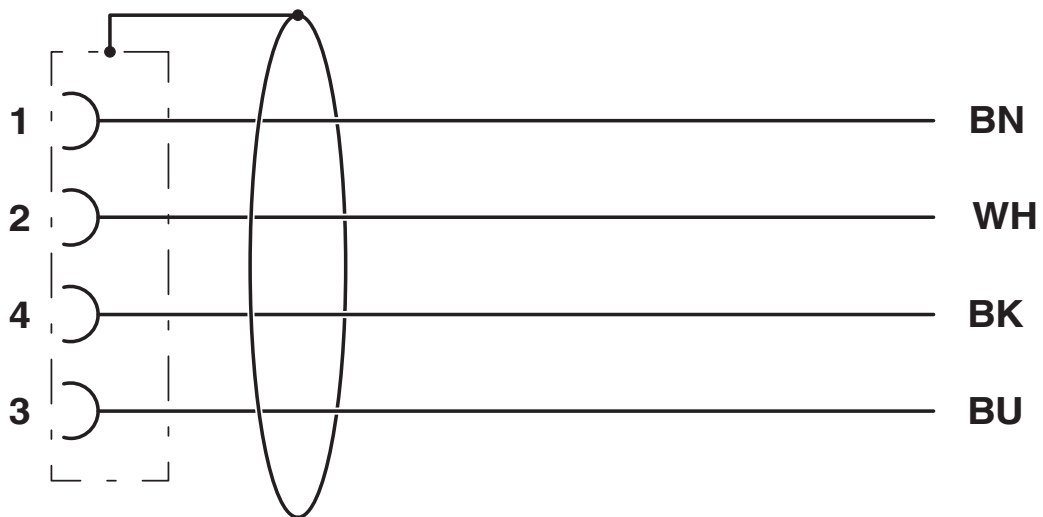
# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

Circuit diagram



Contact assignment of M8 socket

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/1406016>

|                                                                                                                                  |                       |                       |                   |                             |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>UL Listed</b><br>Approval ID: FILE E 221474 |                       |                       |                   |                             |
|                                                                                                                                  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                  | 125 V                 | 4 A                   | -                 | -                           |

|                                                                                                                                   |                       |                       |                   |                             |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>cUL Listed</b><br>Approval ID: FILE E 221474 |                       |                       |                   |                             |
|                                                                                                                                   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                   | 125 V                 | 4 A                   | -                 | -                           |

|                                                                                                                                         |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  <b>EAC-RoHS</b><br>Approval ID: RU D-DE.HB35.B.00387 |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|                                                                                                                                     |                       |                       |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>cUL Listed</b><br>Approval ID: FILE E 221474 |                       |                       |                   |                             |
|                                                                                                                                     | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                     | 30 V                  | 4 A                   | -                 | -                           |

|                                                                                                                                    |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|  <b>UL Listed</b><br>Approval ID: FILE E 221474 |                       |                       |                   |                             |
|                                                                                                                                    | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                    | 30 V                  | 4 A                   | -                 | -                           |

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27060311 |
| ECLASS-12.0 | 27060311 |
| ECLASS-13.0 | 27060311 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001855 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016  
<https://www.phoenixcontact.com/in/products/1406016>

## Environmental product compliance

|                                         |                                          |
|-----------------------------------------|------------------------------------------|
| EU RoHS                                 |                                          |
| Fulfills EU RoHS substance requirements | Yes, No exemptions                       |
| China RoHS                              |                                          |
| Environment friendly use period (EFUP)  | EFUP-E                                   |
|                                         | No hazardous substances above the limits |
| EU REACH SVHC                           |                                          |
| REACH candidate substance (CAS No.)     | No substance above 0.1 wt%               |

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## Accessories

### UCT-WMT (23X4) - Conductor marker

0801453

<https://www.phoenixcontact.com/in/products/0801453>



Conductor marker, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: insert, cable diameter range: 1.5 ... 35 mm, Number of individual labels: 30, text field height: 4 mm, text field width: 23 mm

---

### UC-WMT (23X4) - Conductor marker

0819411

<https://www.phoenixcontact.com/in/products/0819411>



Conductor marker, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: insert, cable diameter range: 1.5 ... 35 mm, Number of individual labels: 24, text field height: 4 mm, text field width: 23 mm

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## US-WMT (23X4) - Cable marker

0828769

<https://www.phoenixcontact.com/in/products/0828769>



Cable marker, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, Number of individual labels: 56, text field height: 4 mm, text field width: 23 mm

---

## WMTW (23X4)R - Cable marker

0831004

<https://www.phoenixcontact.com/in/products/0831004>



Cable marker, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: insert, cable diameter range: 1.5 ... 35 mm, Number of individual labels: 3000, text field height: 4 mm, text field width: 23 mm

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## WP-CTA POM 13,0 BK - Protective hose adapter

1422884

<https://www.phoenixcontact.com/in/products/1422884>



Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

---

## WP-PA HF 13,0 BK - Protective hose

3240681

<https://www.phoenixcontact.com/in/products/3240681>



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: V0, inside diameter: 10 mm, Total length: 50 m

## SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## WP-PA HF-HB 13,0 BK - Protective hose

3240839

<https://www.phoenixcontact.com/in/products/3240839>



Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: HB, inside diameter: 10 mm, Total length: 50 m

---

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

1430860

<https://www.phoenixcontact.com/in/products/1430860>

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



# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/in/products/1051993>



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

---

## CUTFOX-S VDE - Diagonal cutter

1212207

<https://www.phoenixcontact.com/in/products/1212207>



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## WIREFOX SAC-1 - Stripping tool

1212757

<https://www.phoenixcontact.com/in/products/1212757>



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

---

## WIREFOX SAC - Stripping tool

1212623

<https://www.phoenixcontact.com/in/products/1212623>



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## WIREFOX 10 - Stripping tool

1212150

<https://www.phoenixcontact.com/in/products/1212150>



Stripping tool, for cables and conductors from 0.02 - 10 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

---

## TSD 02 SAC - Torque screwdriver

1208487

<https://www.phoenixcontact.com/in/products/1208487>



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

# SAC-4P-10,0-542/M8 FS SH BK - Sensor/actuator cable



1406016

<https://www.phoenixcontact.com/in/products/1406016>

## SAC BIT M8-D10 - Tool

1208461

<https://www.phoenixcontact.com/in/products/1208461>



Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 10 mm, for 4 mm hexagonal drive

---

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

[info@phoenixcontact.co.in](mailto:info@phoenixcontact.co.in)