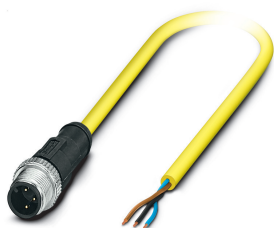


## Sensor/actuator cable - SAC-3P-M12MS/ 5,0-542 BK - 1406303

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Sensor/actuator cable, 3-position, PVC, yellow, Plug straight M12, coding: A, on free cable end, cable length: 5 m



### Key Commercial Data

|                        |                     |
|------------------------|---------------------|
| Packing unit           | 1 pc                |
| Minimum order quantity | 50 pc               |
| GTIN                   | <br>4 046356 797504 |
| GTIN                   | 4046356797504       |

### Technical data

#### Dimensions

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

#### Ambient conditions

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

#### General

|                       |                               |
|-----------------------|-------------------------------|
| Rated current at 40°C | 4 A                           |
| Rated voltage         | 250 V AC                      |
|                       | 250 V DC                      |
| Number of positions   | 3                             |
| Insulation resistance | ≥ 100 MΩ                      |
| Coding                | A - standard                  |
| Standards/regulations | M12 connector IEC 61076-2-101 |

# Sensor/actuator cable - SAC-3P-M12MS/ 5,0-542 BK - 1406303

## Technical data

### General

|                              |                        |
|------------------------------|------------------------|
| Status display               | No                     |
| Protective circuit/component | unwired                |
| Overvoltage category         | II                     |
| Degree of pollution          | 3                      |
| Insertion/withdrawal cycles  | ≥ 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                |

### Standards and Regulations

|  |                               |
|--|-------------------------------|
| Standards/specifications               | M12 connector IEC 61076-2-101 |
| Flammability rating according to UL 94 | HB                            |
| Standards/specifications               | M12 connector IEC 61076-2-101 |

### 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 ±0.03 mm          |
| Wire colors                                   | brown, blue, black        |
| Overall twist                                 | 3 wires, twisted          |
| External cable diameter D                     | 4.7 mm ±0.2 mm            |
| Minimum bending radius, flexible installation | 8 x D                     |
| Cable weight                                  | 30 kg/km                  |
| External sheath, color                        | yellow                    |
| Outer sheath, material                        | PVC                       |
| Material conductor insulation                 | PVC                       |
| Conductor material                            | Tin-plated Cu litz wires  |
| Insulation resistance                         | ≥ (550 M Ohms/m @ 500V)   |
| Conductor resistance                          | max. 50.5 Ω/km (20 °C)    |
| Nominal voltage, cable                        | 300 V                     |
| Special properties                            | UL standards PLTC and ITC |
| Other resistance                              | UV resistant              |
| Flame resistance                              | FT4                       |

# Sensor/actuator cable - SAC-3P-M12MS/ 5,0-542 BK - 1406303

## Technical data

### Cable

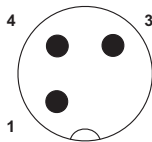
|                                 |   |
|---------------------------------|---|
| Ambient temperature (operation) | -30 °C ... 105 °C (cable, fixed installation)   |
|                                 | -5 °C ... 105 °C (Cable, flexible installation) |

### Environmental Product Compliance

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

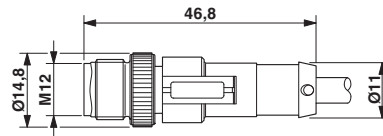
## Drawings

Schematic diagram



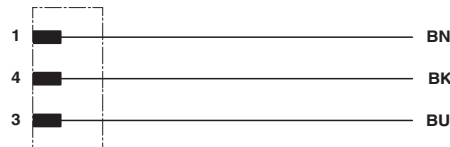
Pin assignment M12 plug, 3-pos., A-coded, view male side

Dimensional drawing



Plug, M12 x 1, straight, shielded

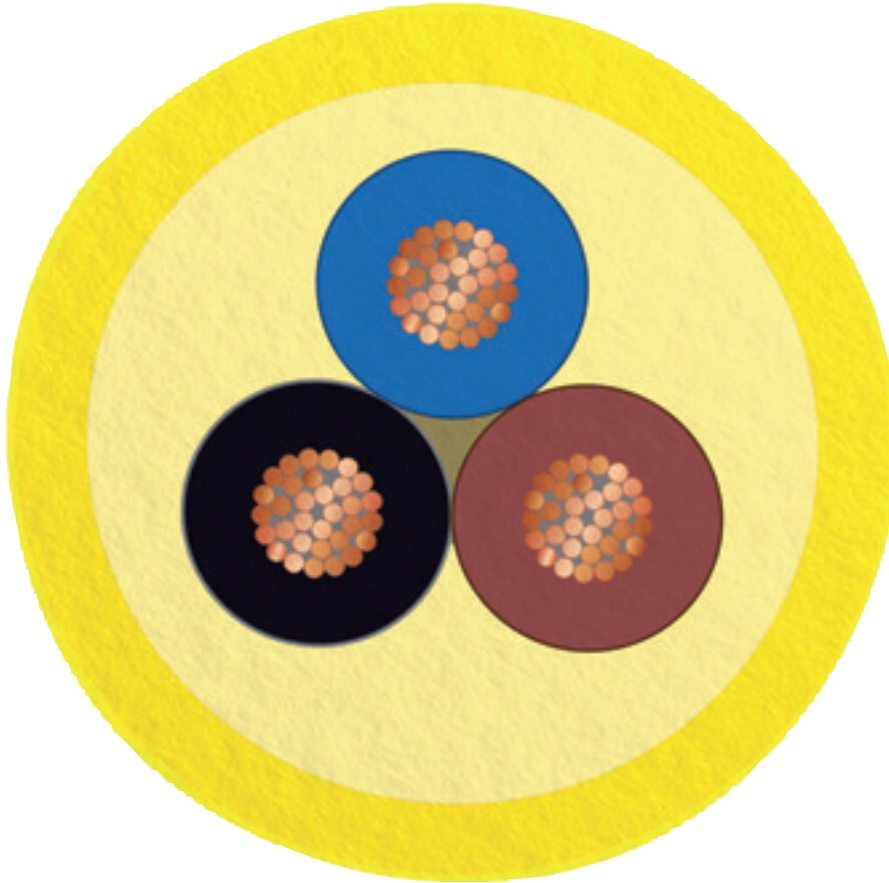
Circuit diagram



Contact assignment of the M12 plug

# Sensor/actuator cable - SAC-3P-M12MS/ 5,0-542 BK - 1406303

Cable cross section



PVC yellow 105 °C [542]

## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27060311 |
| eCl@ss 11.0   | 27060311 |
| eCl@ss 4.0    | 27060300 |
| eCl@ss 4.1    | 27060300 |
| eCl@ss 5.0    | 27061800 |
| eCl@ss 5.1    | 27061800 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27279218 |
| eCl@ss 9.0    | 27060311 |

ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
|----------|----------|

# Sensor/actuator cable - SAC-3P-M12MS/ 5,0-542 BK - 1406303

## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 4.0 | 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 |
| UNSPSC 19.0   | 31251501 |
| UNSPSC 20.0   | 31251501 |
| UNSPSC 21.0   | 31251501 |

## Approvals


### Approvals


#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

#### Ex Approvals

### Approval details

|                    |   |   |               |
|--------------------|---|---|---------------|
| 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 | 300 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 | 300 V   |   |               |
| Nominal current IN | 4 A   |   |               |

# Sensor/actuator cable - SAC-3P-M12MS/ 5,0-542 BK - 1406303

## Approvals

|     |  |                          |
|-----|--|--------------------------|
| EAC |  | RU C-<br>DE.BL08.B.00286 |
|-----|--|--------------------------|

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

## 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 plugs



#### 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



#### 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

## Sensor/actuator cable - SAC-3P-M12MS/ 5,0-542 BK - 1406303

### Accessories

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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