

# Sensor/actuator cable - SAC-4P-M8MR/1,5-542/M8FR SH BK - 1406010


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Sensor/actuator cable, 4-position, PVC, yellow, shielded, Plug angled M8, on Socket angled M8, cable length: 1.5 m



## Key Commercial Data

|                        |   |
|------------------------|---|
| Packing unit           | 1 pc  |
| Minimum order quantity | 50 pc   |
| GTIN                   | <br>4 046356 800198 |
| GTIN                   | 4046356800198   |

## 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                | 48 V AC                      |
|                              | 60 V DC                      |
| Number of positions          | 4                            |
| Insulation resistance        | ≥ 100 MΩ                     |
| Coding                       | A - standard                 |
| Standards/regulations        | M8 connector IEC 61076-2-104 |
| Status display               | No                           |
| Protective circuit/component | unwired                      |
| Overvoltage category         | II                           |

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## Technical data

### General

|                             |                        |
|-----------------------------|------------------------|
| Degree of pollution         | 3                      |
| Insertion/withdrawal cycles | ≥ 100                  |
| Torque                      | 0.2 Nm (M8 connectors) |

### 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

|  |                              |
|--|------------------------------|
| Standards/specifications               | M8 connector IEC 61076-2-104 |
| 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                               | 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                      |
| Insulation resistance                         | ≥ (550 M Ohms/m @ 500V)                       |
| Conductor resistance                          | max. 79.7 Ω/km (20 °C)                        |
| Nominal voltage, cable                        | 300 V   |
| Flame resistance                              | FT4   |
| Other resistance                              | UV resistant                                  |
| Ambient temperature (operation)               | -30 °C ... 105 °C (cable, fixed installation) |

### Environmental Product Compliance

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

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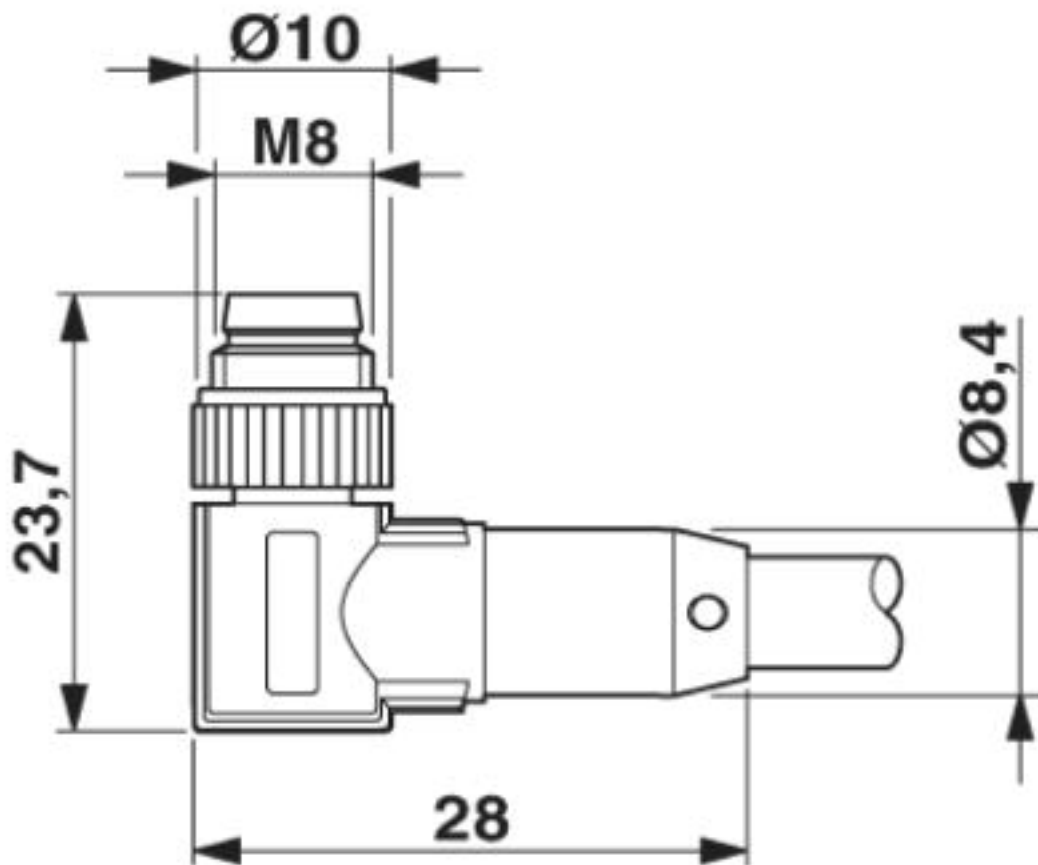
## Technical data

### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 years  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

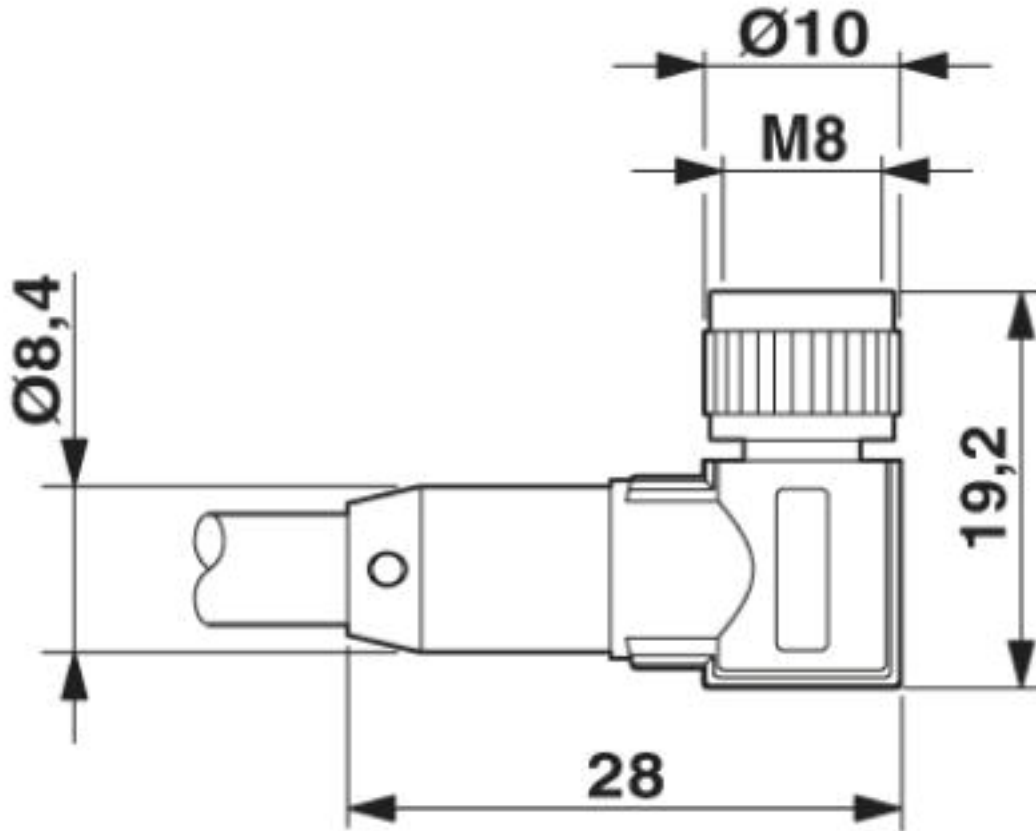
Dimensional drawing



Plug M8 x 1, angled, shielded

# Sensor/actuator cable - SAC-4P-M8MR/1,5-542/M8FR SH BK - 1406010

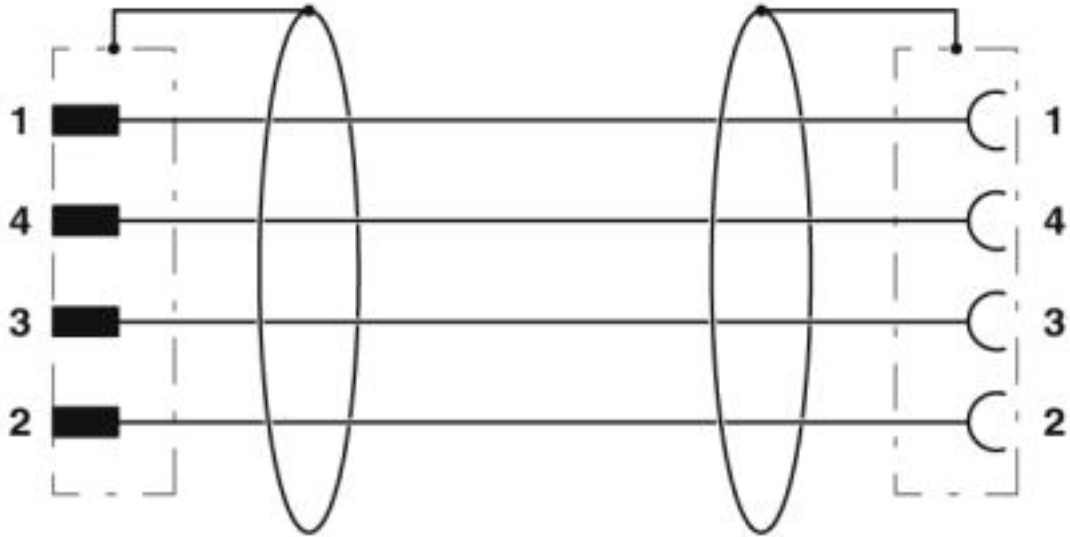
Dimensional drawing



Socket M8 x 1, angled, shielded

# Sensor/actuator cable - SAC-4P-M8MR/1,5-542/M8FR SH BK - 1406010

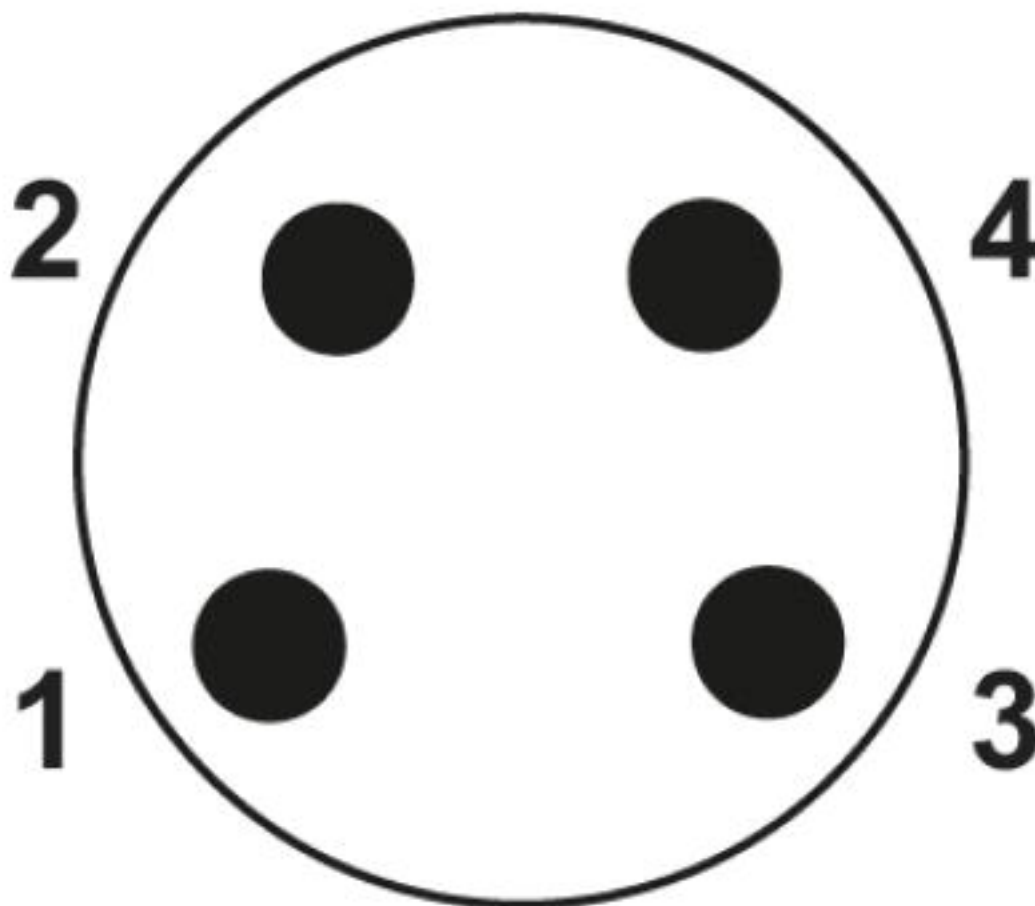
Circuit diagram



Contact assignment of M8 plugs/sockets

# Sensor/actuator cable - SAC-4P-M8MR/1,5-542/M8FR SH BK - 1406010

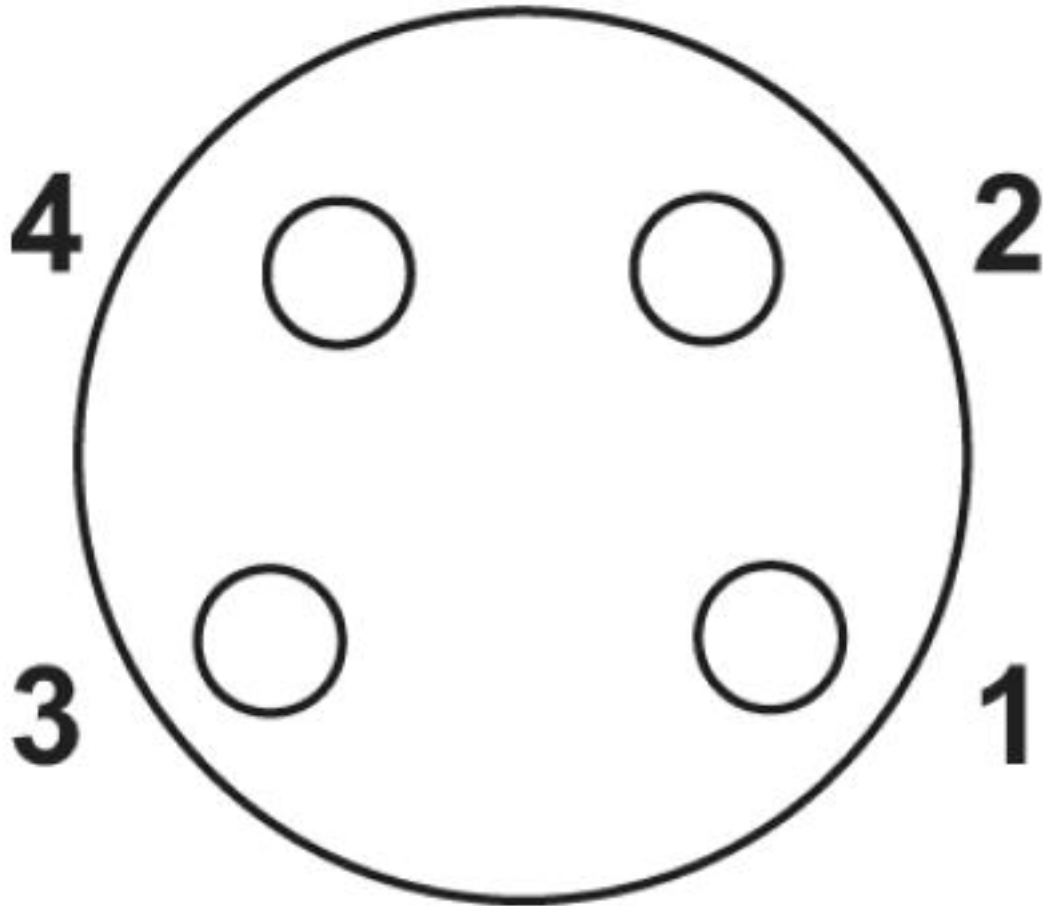
Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

## Sensor/actuator cable - SAC-4P-M8MR/1,5-542/M8FR SH BK - 1406010

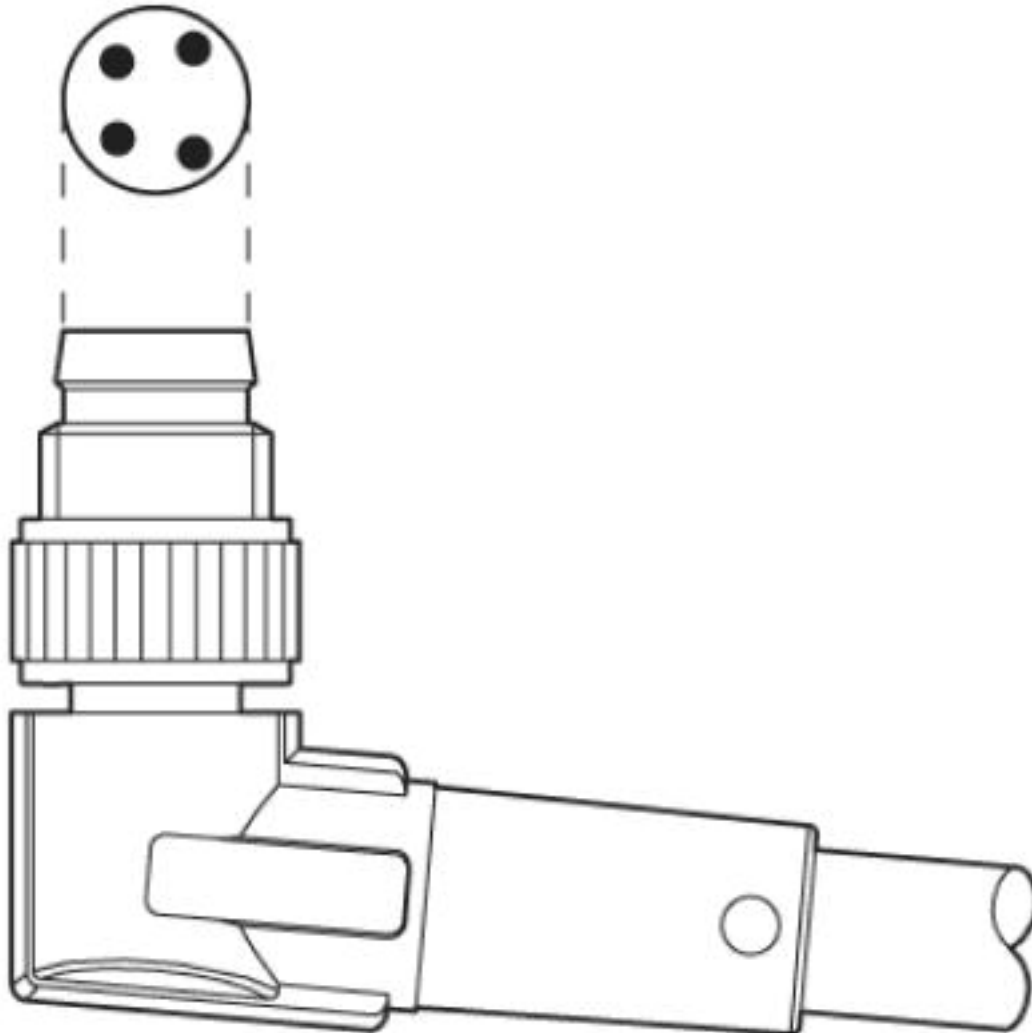
Schematic diagram



Pin assignment M8 socket, 4-pos., view female side

# Sensor/actuator cable - SAC-4P-M8MR/1,5-542/M8FR SH BK - 1406010

Schematic diagram

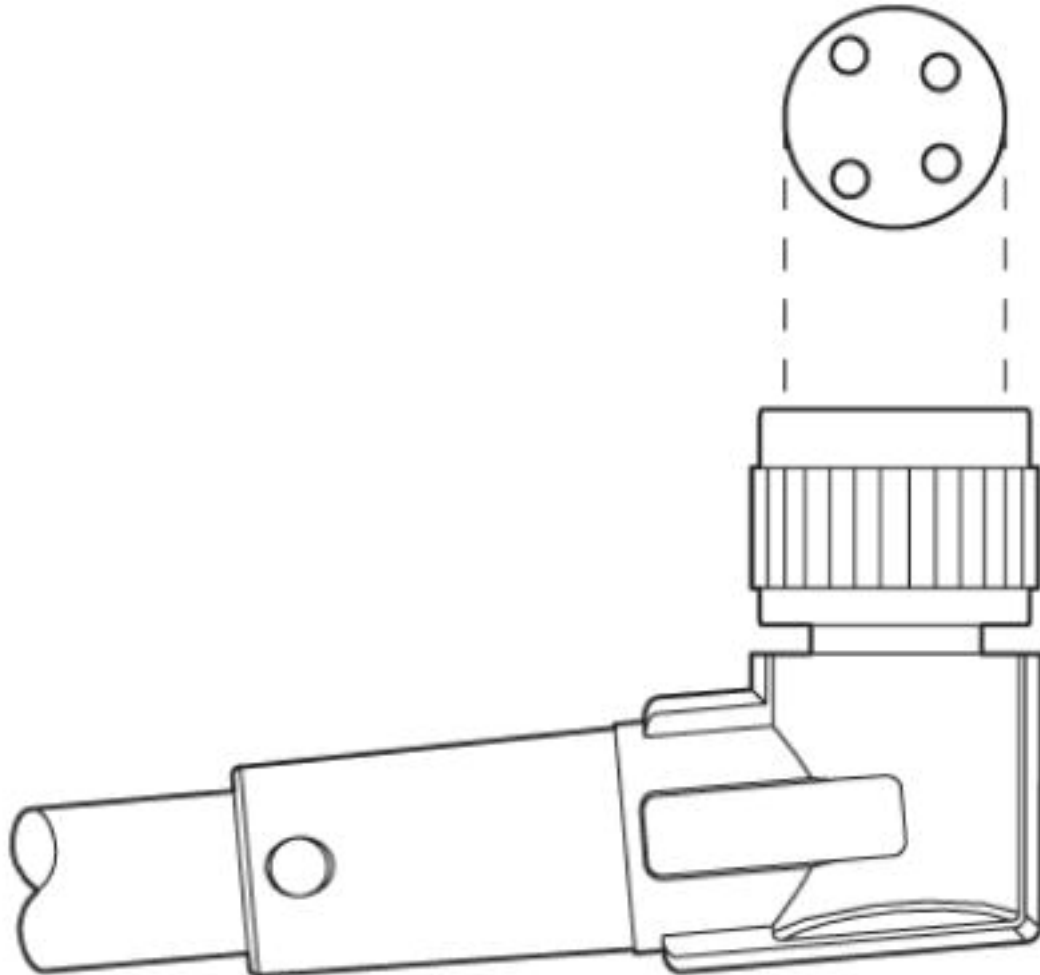


Layout of connector pin assignments



# Sensor/actuator cable - SAC-4P-M8MR/1,5-542/M8FR SH BK - 1406010

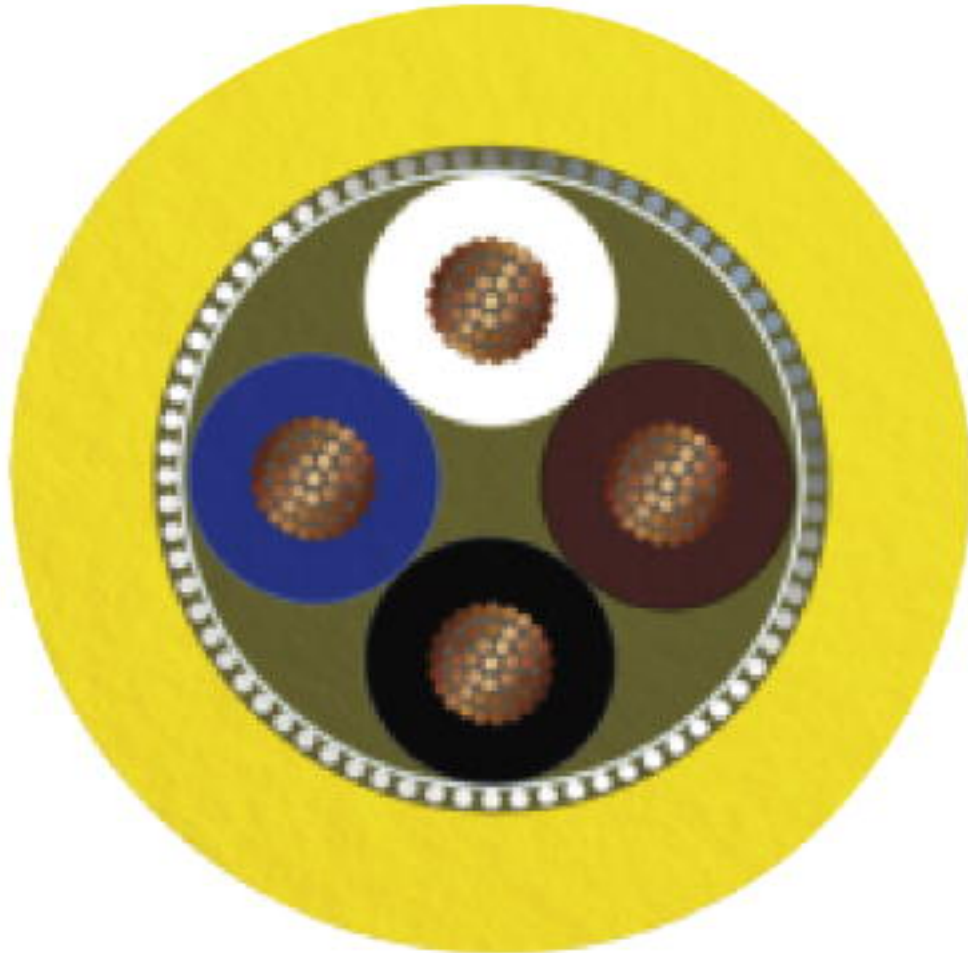
Schematic diagram



Layout of connector pin assignments

# Sensor/actuator cable - SAC-4P-M8MR/1,5-542/M8FR SH BK - 1406010

Cable cross section



PVC yellow 105 °C [542]

## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 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 8.0    | 27279218 |
| eCl@ss 9.0    | 27060311 |

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## Classifications

### 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 |
| UNSPSC 19.0   | 31251501 |
| UNSPSC 20.0   | 31251501 |
| UNSPSC 21.0   | 31251501 |

## Approvals


### Approvals


#### Approvals

UL Listed / cUL Listed / 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 | 30 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 |
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## Approvals

cULus Listed



## Accessories

### Accessories

#### Conductor marking

Insert label - PABA WH/23 - 1013779



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

Insert label - PABA YE/23 - 1013782



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: thread on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

#### 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

#### Plug for cable screw gland

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

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



#### Protective cap

## Sensor/actuator cable - SAC-4P-M8MR/1,5-542/M8FR SH BK - 1406010

### Accessories

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

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



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### Screwdriver tools

Tool - SAC BIT M8-D10 - 1208461



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

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### 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

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