

## Sensor/actuator cable - SAC-4P-M 8MR/1,5-PVC/M 8FS - 1415578

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Sensor/actuator cable, 4-position, PVC, black RAL 9005, Plug angled M8, on Socket straight M8, cable length: 1.5 m

### Your advantages

- ✓ Easy and safe: 100% electrically tested plug-in components

RoHS

### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                                    |
| GTIN         | <br>4 055626 049489 |
| GTIN         | 4055626049489                                                                                           |

### 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         | 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 |

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## Technical data

### General

|                              |         |
|------------------------------|---------|
| Status display               | No      |
| Protective circuit/component | unwired |
| Overvoltage category         | II      |
| Degree of pollution          | 3       |
| Insertion/withdrawal cycles  | ≥ 100   |

### 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 black                             |
| Cable type (abbreviation)                     | PVC                                   |
| Cable abbreviation                            | LiYY                                  |
| UL AWM style                                  | 2464 / 1729 (80°C/300 V)              |
| Conductor cross section                       | 4x 0.25 mm <sup>2</sup> (Signal line) |
| AWG signal line                               | 24                                    |
| Conductor structure signal line               | 14x 0.15 mm                           |
| Core diameter including insulation            | 1.17 mm ±0.05 mm                      |
| Thickness, insulation                         | ≥ 0.23 mm (Core insulation)           |
|                                               | ≥ 0.76 mm (Outer cable sheath)        |
| Wire colors                                   | brown, white, blue, black             |
| Overall twist                                 | 4 wires, twisted                      |
| External sheath, color                        | black RAL 9005                        |
| External cable diameter D                     | 4.4 mm ±0.15 mm                       |
| Minimum bending radius, fixed installation    | 5 x D                                 |
| Minimum bending radius, flexible installation | 10 x D                                |
| Cable weight                                  | 33 kg/km                              |
| Outer sheath, material                        | PVC                                   |
| Material conductor insulation                 | PVC                                   |
| Conductor material                            | Bare Cu litz wires                    |
| Insulation resistance                         | ≥ 100 MΩ*km (at 20 °C)                |
| Conductor resistance                          | max. 79 Ω/km (at 20 °C)               |

## Sensor/actuator cable - SAC-4P-M 8MR/1,5-PVC/M 8FS - 1415578

### Technical data

#### Cable

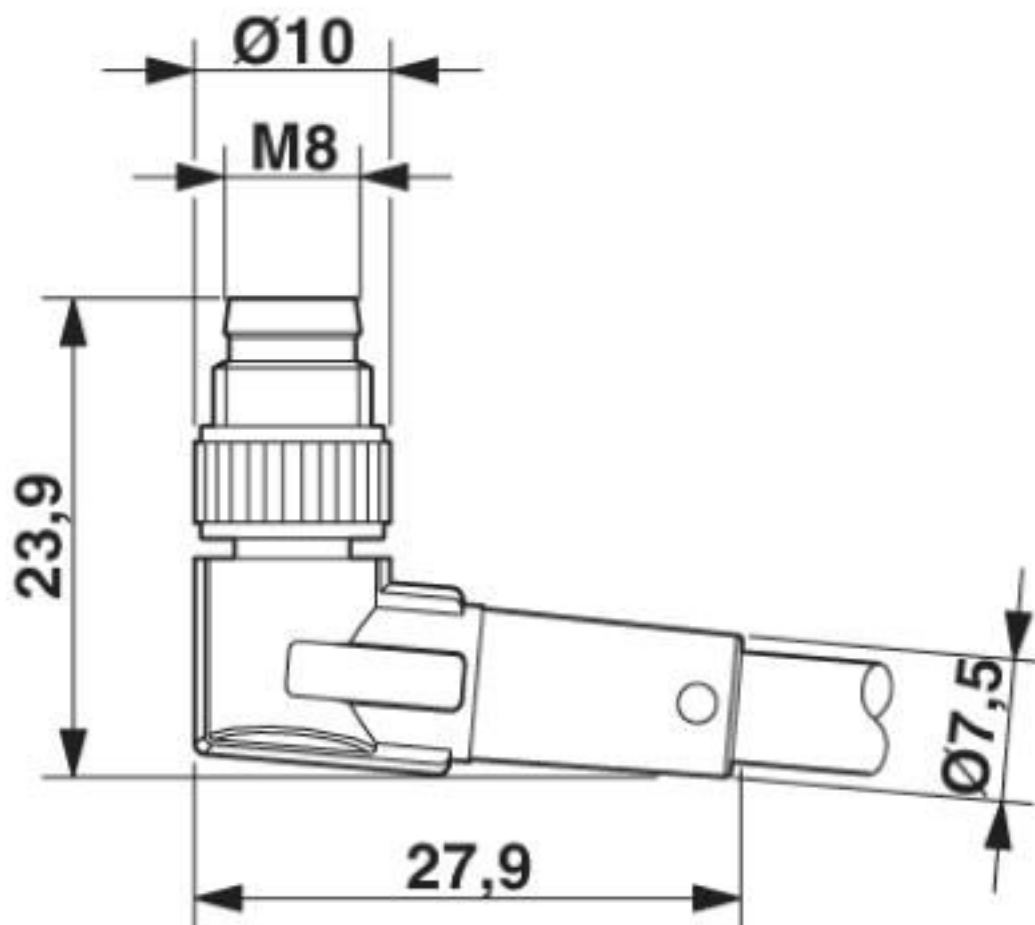
|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Nominal voltage, cable          | ≤ 300 V                                         |
| Test voltage, cable             | ≥ 3000 V                                        |
| Flame resistance                | As per UL-Style 2464                            |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)    |
|                                 | -25 °C ... 80 °C (cable, flexible installation) |

#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                      |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

### Drawings

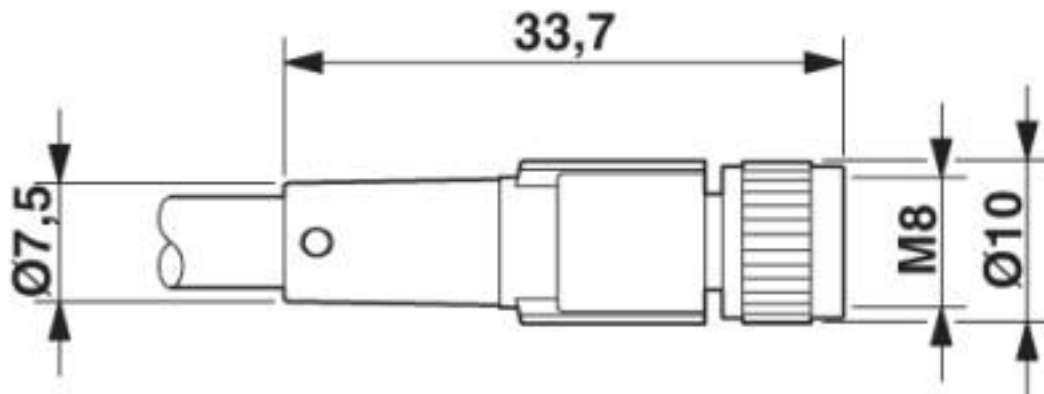
Dimensional drawing



M8 x 1 male plug, angled version

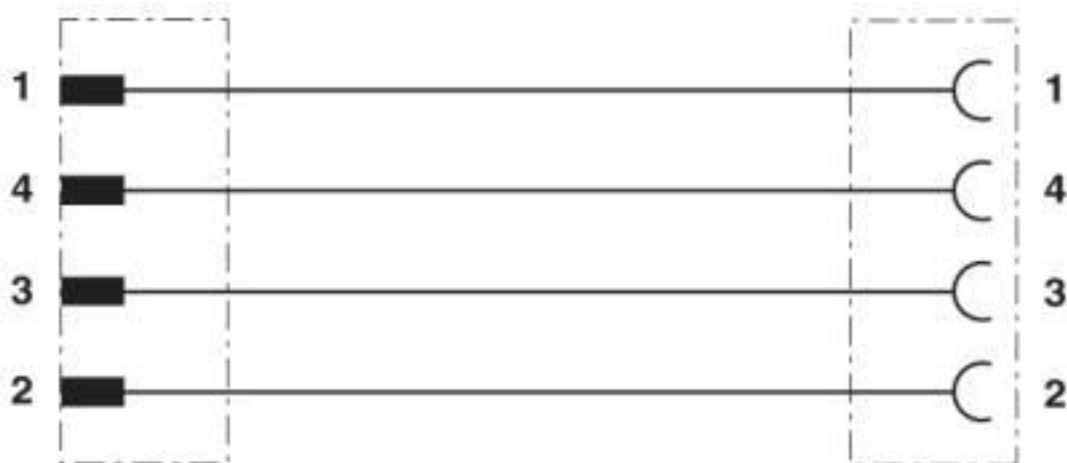
## Sensor/actuator cable - SAC-4P-M 8MR/1,5-PVC/M 8FS - 1415578

Dimensional drawing



Socket M8 x 1, straight

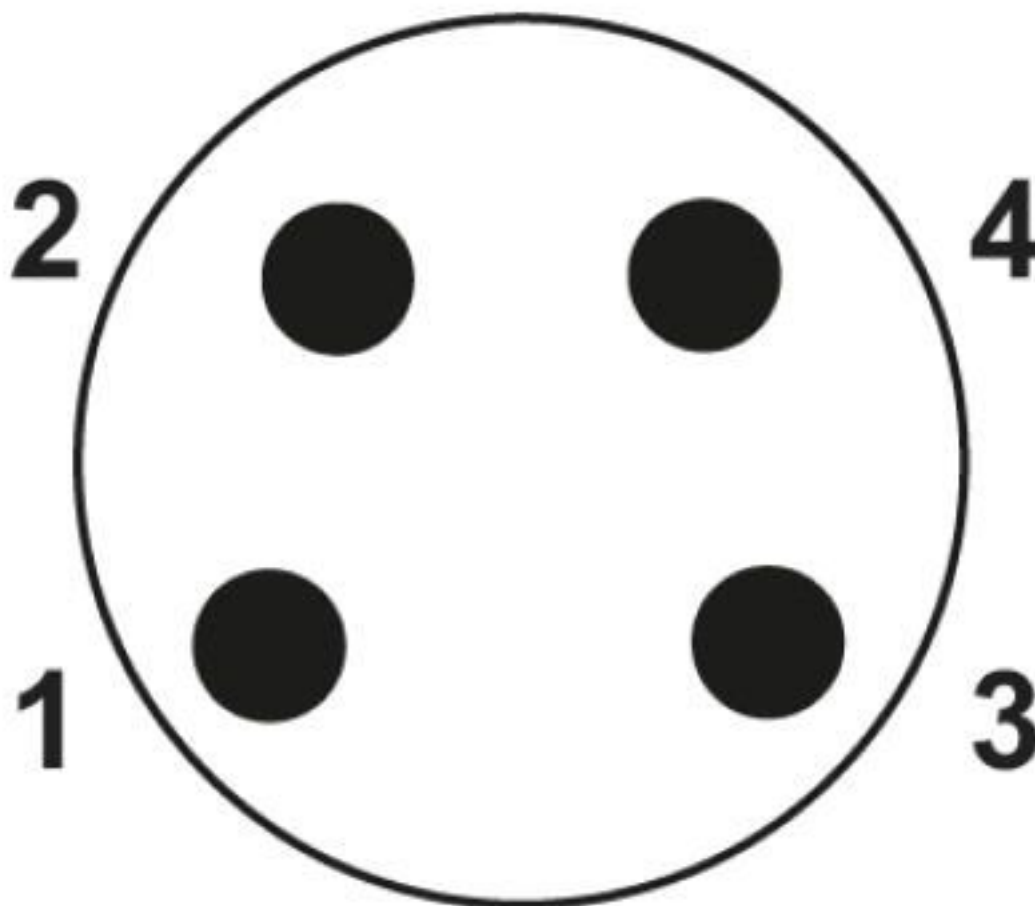
Circuit diagram



Contact assignment of M8 plugs/sockets

## Sensor/actuator cable - SAC-4P-M 8MR/1,5-PVC/M 8FS - 1415578

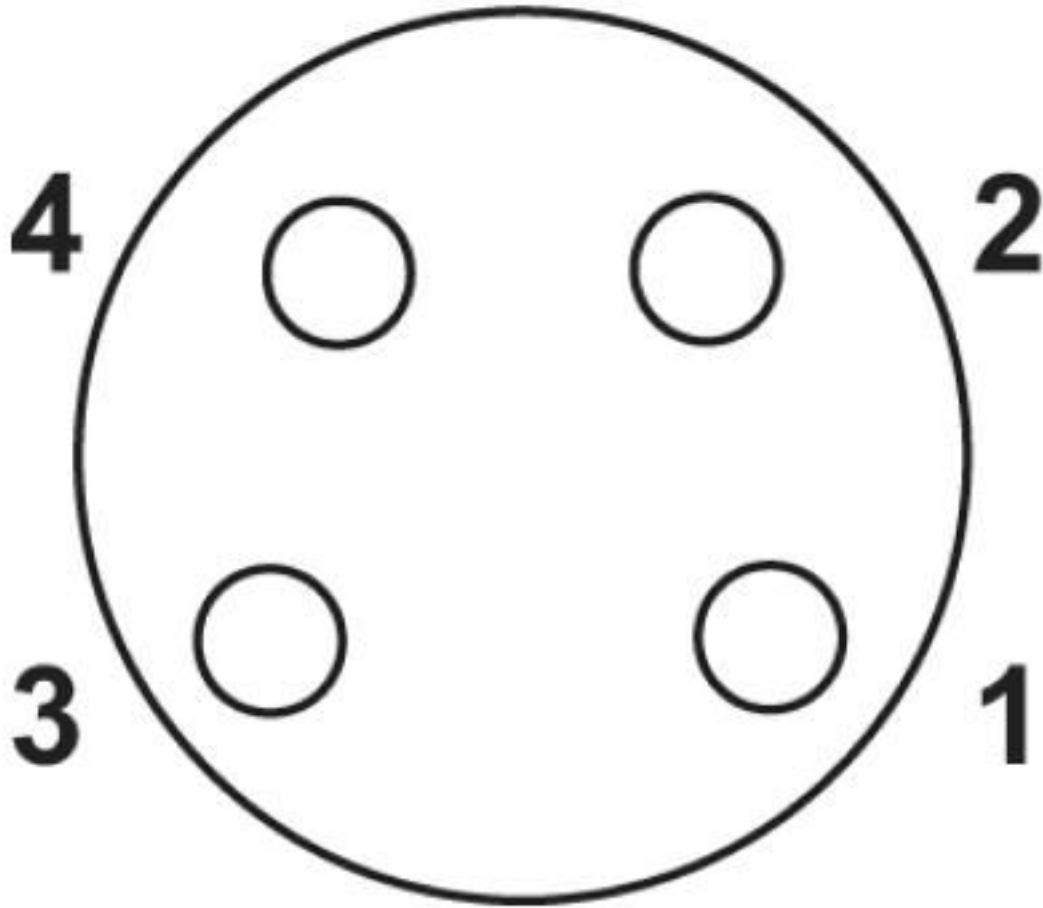
Schematic diagram



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

## Sensor/actuator cable - SAC-4P-M 8MR/1,5-PVC/M 8FS - 1415578

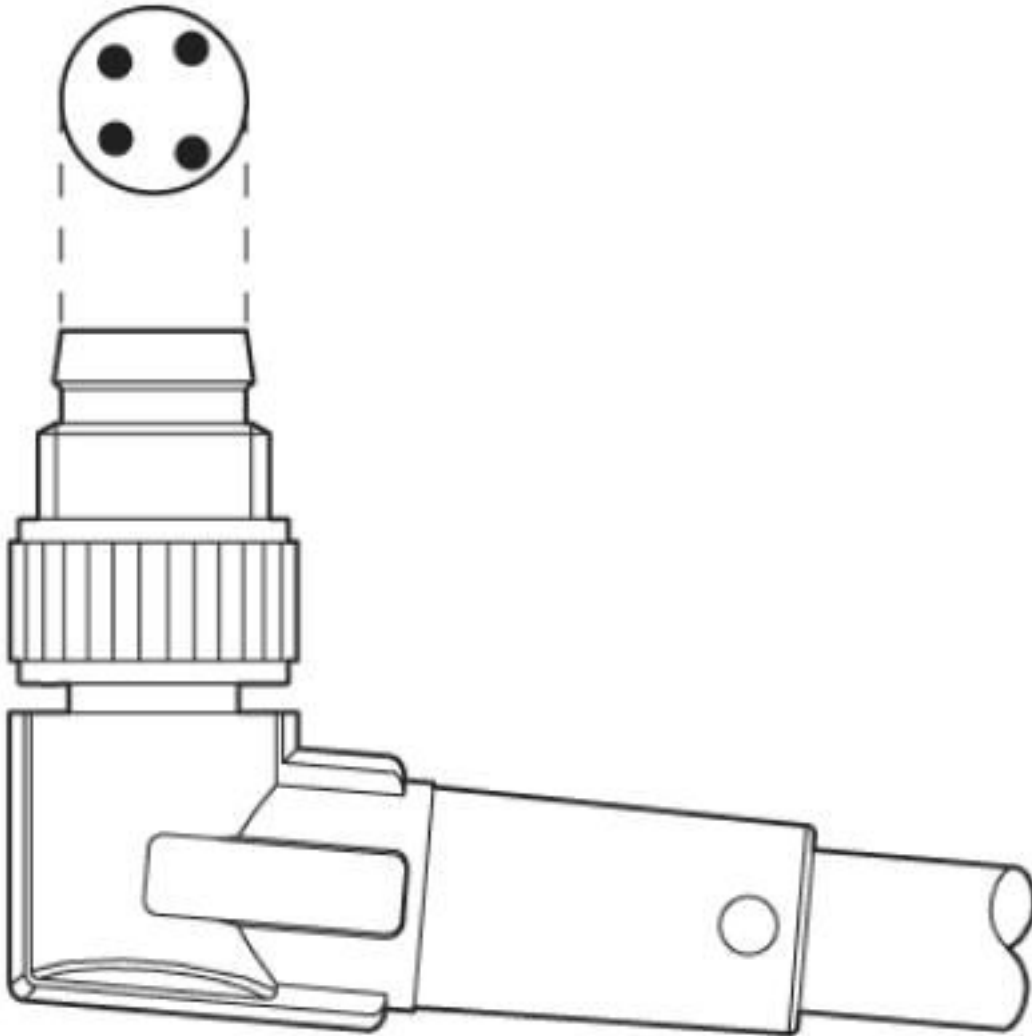
Schematic diagram



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

## Sensor/actuator cable - SAC-4P-M 8MR/1,5-PVC/M 8FS - 1415578

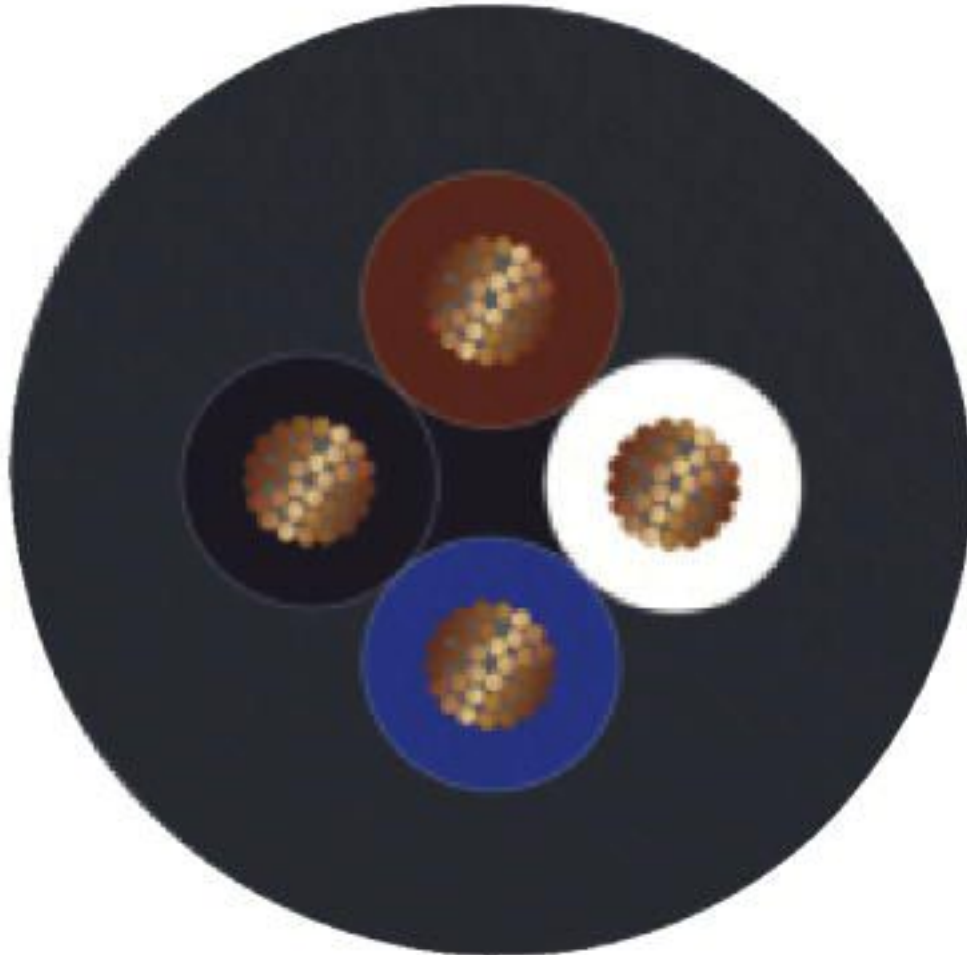
Schematic diagram



Layout of connector pin assignments

## Sensor/actuator cable - SAC-4P-M 8MR/1,5-PVC/M 8FS - 1415578

Cable cross section



PVC black [PVC]

### 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 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

#### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 13.2 | 31251501 |
| UNSPSC 19.0 | 31251501 |
| UNSPSC 20.0 | 31251501 |
| UNSPSC 21.0 | 31251501 |

### Approvals

#### Approvals

#### Approvals

UL Listed / cUL Listed / EAC-RoHS / 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 |
| Nominal voltage UN | 30 V                                                                                |                                                                                                                                                       |               |
| Nominal current IN | 4 A                                                                                 |                                                                                                                                                       |               |

|          |                                                                                     |                          |
|----------|-------------------------------------------------------------------------------------|--------------------------|
| EAC-RoHS |  | RU D-<br>DE.HB35.B.00387 |
|----------|-------------------------------------------------------------------------------------|--------------------------|

## Sensor/actuator cable - SAC-4P-M 8MR/1,5-PVC/M 8FS - 1415578

### 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-M 8MR/1,5-PVC/M 8FS - 1415578

### 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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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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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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