

## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

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Sensor/actuator cable, 8-position, PVC, yellow, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 20 m



### Key Commercial Data

|              |                                                                                      |
|--------------|--------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                 |
| GTIN         |  |
| GTIN         | 4055626211350                                                                        |

### Technical data

#### Dimensions

|                 |      |
|-----------------|------|
| Length of cable | 20 m |
|-----------------|------|

#### Ambient conditions

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

#### General

|                              |                               |
|------------------------------|-------------------------------|
| Rated current at 40°C        | 2 A                           |
| Rated voltage                | 30 V AC                       |
|                              | 30 V DC                       |
| Number of positions          | 8                             |
| Color handle area            | black                         |
| Insulation resistance        | ≥ 100 MΩ                      |
| Coding                       | A - standard                  |
| Standards/regulations        | M12 connector IEC 61076-2-101 |
| Status display               | No                            |
| Protective circuit/component | unwired                       |

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## Technical data

### General

|                             |                        |
|-----------------------------|------------------------|
| 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                       | CuZn                                        |
| 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               | M12 connector IEC 61076-2-101 |
| 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                                                 |
| Conductor structure signal line               | 32x 1.10 mm                                        |
| Core diameter including insulation            | 1.12 mm ±0.03 mm                                   |
| Wire colors                                   | white, brown, green, yellow, gray, pink, blue, red |
| Overall twist                                 | 8 wires around filler to the core                  |
| External sheath, color                        | yellow                                             |
| External cable diameter D                     | 5.7 mm ±0.2 mm                                     |
| Minimum bending radius, flexible installation | 8 x D                                              |
| Cable weight                                  | 44 kg/km                                           |
| Outer sheath, material                        | PVC                                                |
| Material, filler                              | PP                                                 |
| 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                              | FT1, VW-1                                          |
| Other resistance                              | UV resistant                                       |
| Ambient temperature (operation)               | -30 °C ... 105 °C (cable, fixed installation)      |
|                                               | -5 °C ... 105 °C (cable, flexible installation)    |

## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

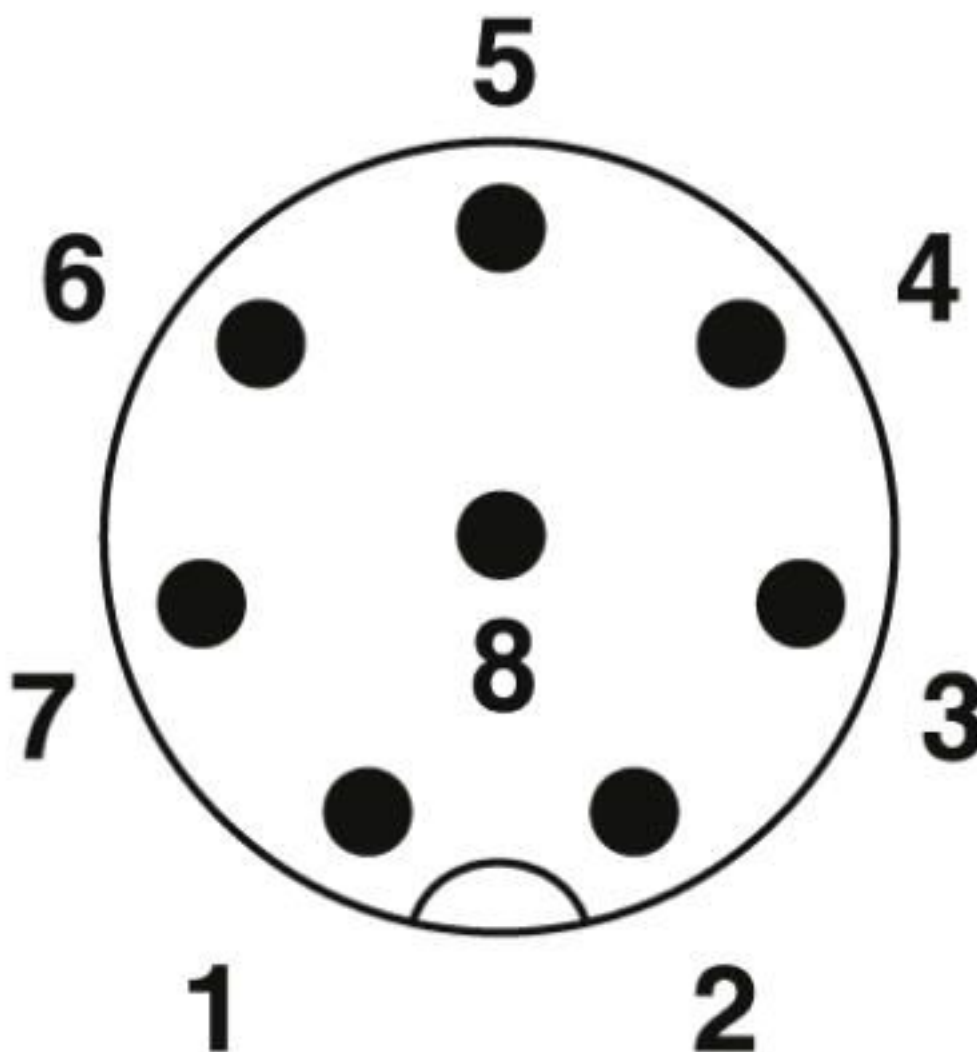
### Technical data

#### 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

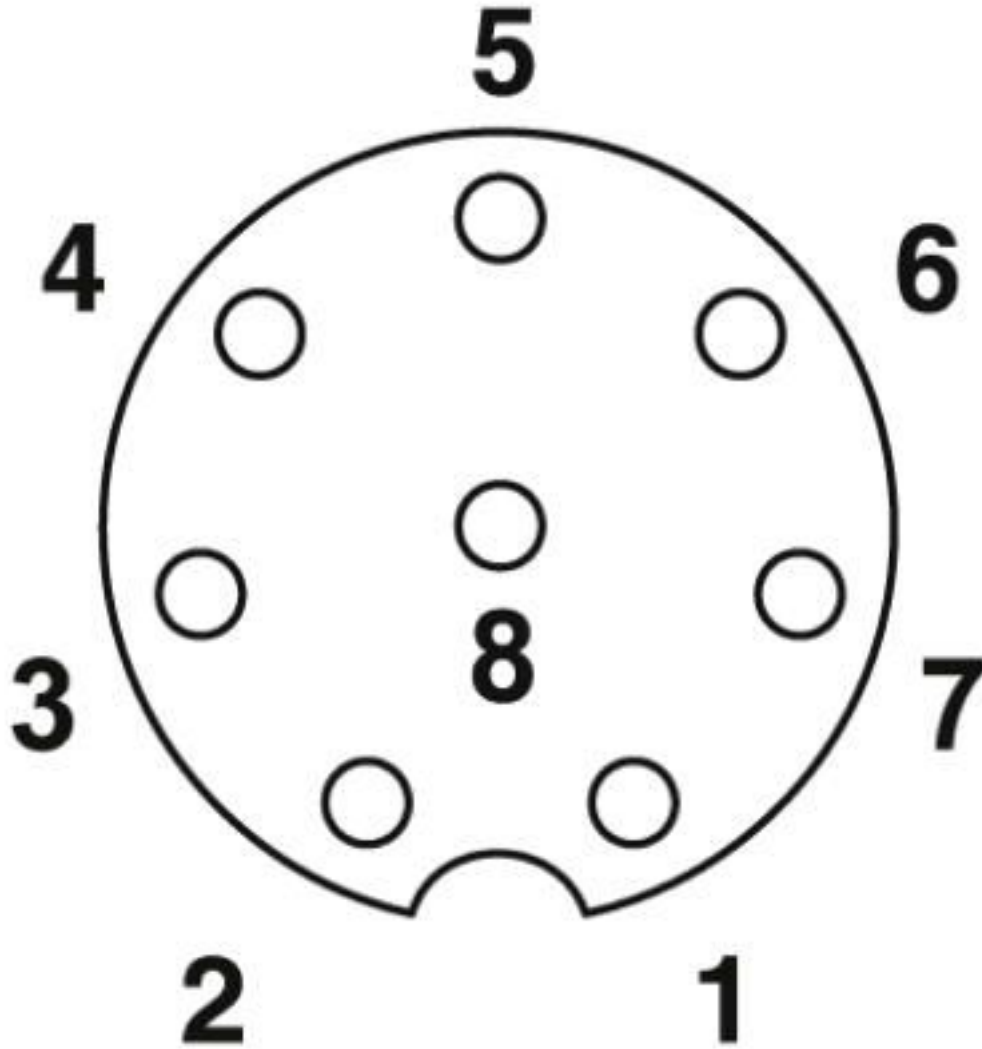
Schematic diagram



Pin assignment M12 plug, 8-pos., A-coded, view plug side

## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

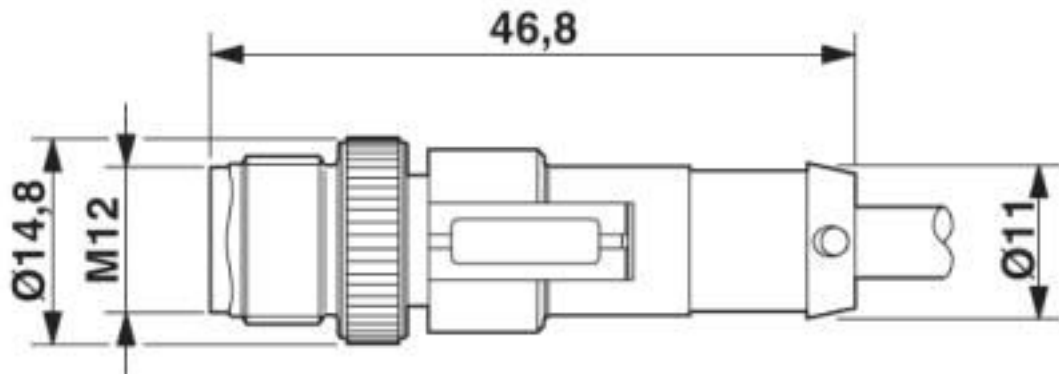
Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

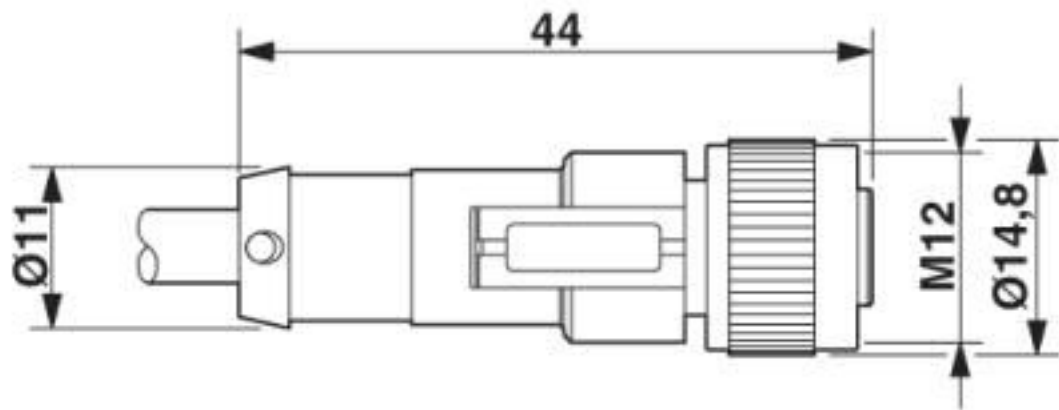
## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

Dimensional drawing



Plug, M12 x 1, straight, shielded

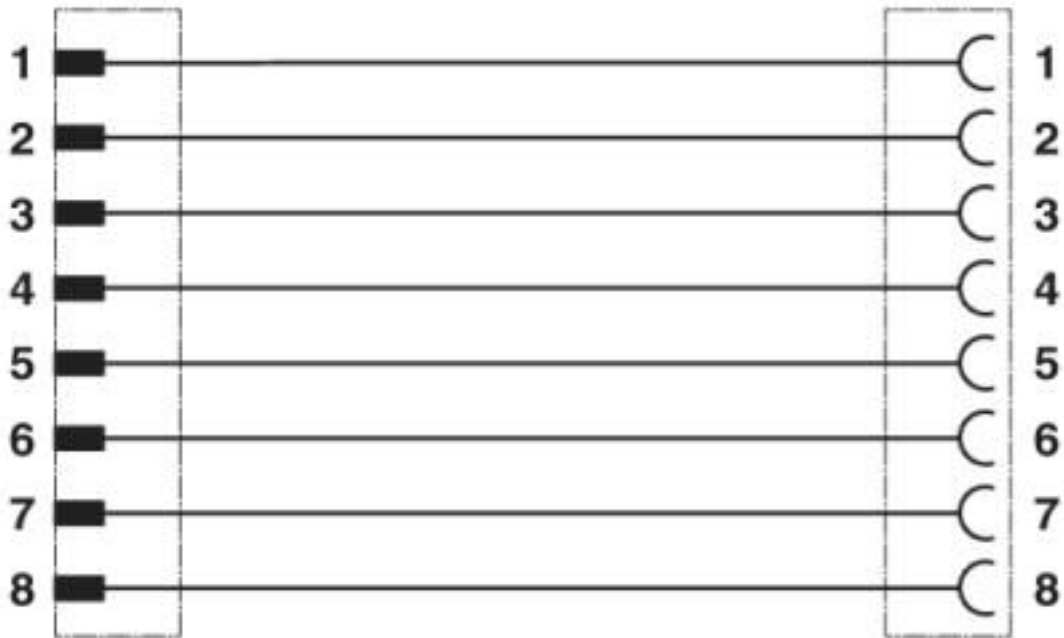
Dimensional drawing



M12 x 1 socket, straight

## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

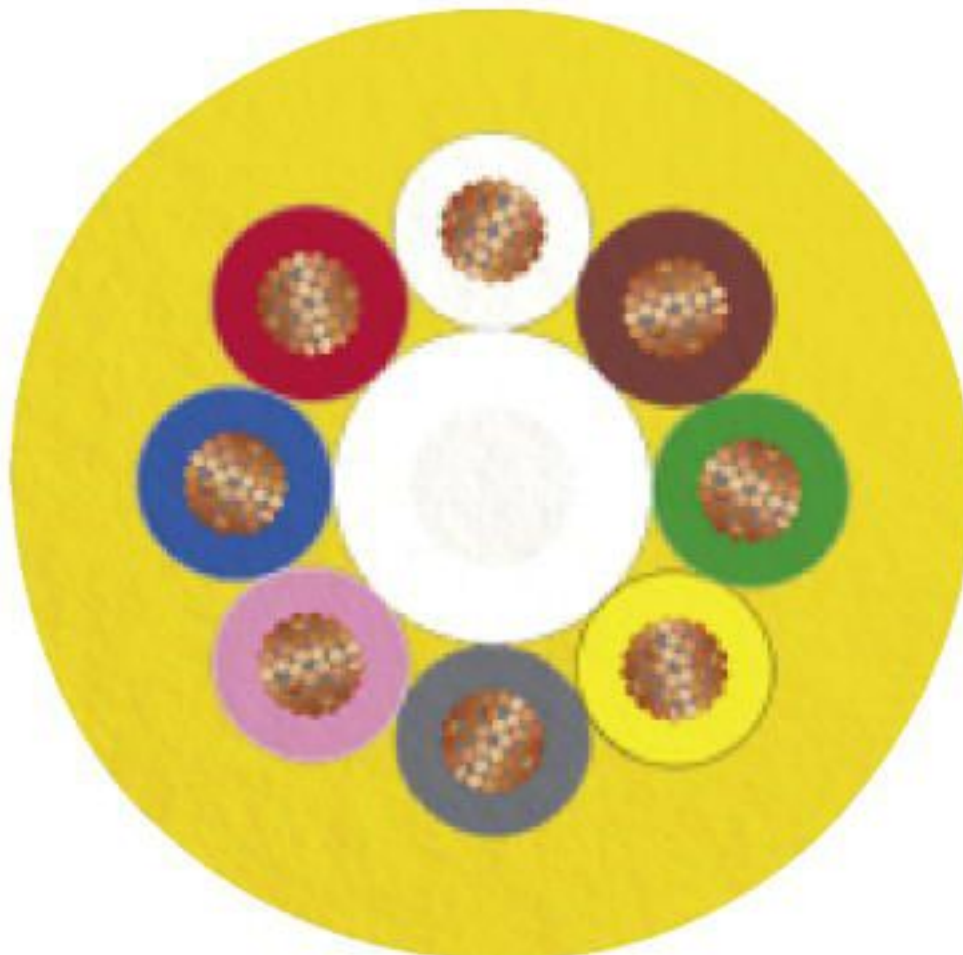
Circuit diagram



Contact assignment of the M12 plug and the M12 socket

## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

Cable cross section



PVC yellow 105 °C [542]

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27060311 |
| eCl@ss 5.1    | 27061801 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27279218 |
| eCl@ss 9.0    | 27060311 |

ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

### Approvals

#### Approvals

#### Approvals

UL Listed / cUL Listed / EAC-RoHS / 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 |                                                                                   | 30 V                                                                                                                                                  |               |
| Nominal current IN |                                                                                   | 2 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 |                                                                                     | 2 A                                                                                                                                                   |               |

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

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

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

### Accessories

#### Accessories

#### Conductor marking

## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

### Accessories

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-M12 MS-PA-CHAIN - 1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



### 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

## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

### Accessories

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

Locking clip - SAC-M12-EXCLIP-F - 1558991



Locking clip for the socket 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

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

### 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

## Sensor/actuator cable - SAC-8P-MS/20,0-542/ FS SCO BK - 1417916

### Accessories

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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