

## Sensor/actuator cable - SAC-3P-MS/0,5-542/ FRSH SCO BK - 1406254


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Sensor/actuator cable, 3-position, PVC, yellow, shielded, Plug straight M12 SPEEDCON, A-coded, on Socket angled M12 SPEEDCON, A-coded, cable length: 0.5 m



### Key Commercial Data

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit           | 1 pc                                                                                                    |
| Minimum order quantity | 50 pc                                                                                                   |
| GTIN                   | <br>4 046356 797986 |
| GTIN                   | 4046356797986                                                                                           |

### Technical data

#### Dimensions

|                 |       |
|-----------------|-------|
| Length of cable | 0.5 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<br>60 V DC            |
| Number of positions          | 3                             |
| Insulation resistance        | ≥ 100 MΩ                      |
| Coding                       | A - standard                  |
| Standards/regulations        | M12 connector IEC 61076-2-101 |
| Status display               | No                            |
| Protective circuit/component | unwired                       |
| Overvoltage category         | II                            |
| Degree of pollution          | 3                             |

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## Technical data

### General

|                             |                        |
|-----------------------------|------------------------|
| 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                |
| Sealing material                       | NBR                                         |

### Standards and Regulations

|                                        |                 |
|----------------------------------------|-----------------|
| Standard designation                   | M12 connector   |
| Standards/regulations                  | 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                               | 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                              |
| Shielding                                     | Tinned copper braided shield                  |
| Optical shield covering                       | 85 %                                          |
| External sheath, color                        | yellow                                        |
| External cable diameter D                     | 5.2 mm ±0.2 mm                                |
| Minimum bending radius, flexible installation | 12 x D                                        |
| Cable weight                                  | 40 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. 50.5 Ω/km (20 °C)                        |
| Nominal voltage, cable                        | 300 V                                         |
| Special properties                            | UL standards PLTC and ITC                     |
| Flame resistance                              | FT4                                           |
| Other resistance                              | UV resistant                                  |
| Ambient temperature (operation)               | -30 °C ... 105 °C (cable, fixed installation) |

# Sensor/actuator cable - SAC-3P-MS/0,5-542/ FRSB SCO BK - 1406254

## Technical data

### Cable

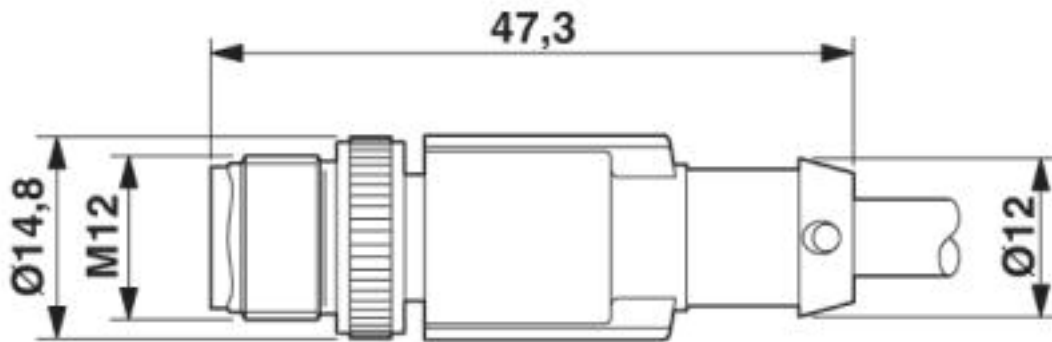
|  |                                                 |
|--|-------------------------------------------------|
|  | -5 °C ... 105 °C (cable, flexible installation) |
|--|-------------------------------------------------|

### Environmental Product Compliance

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

## Drawings

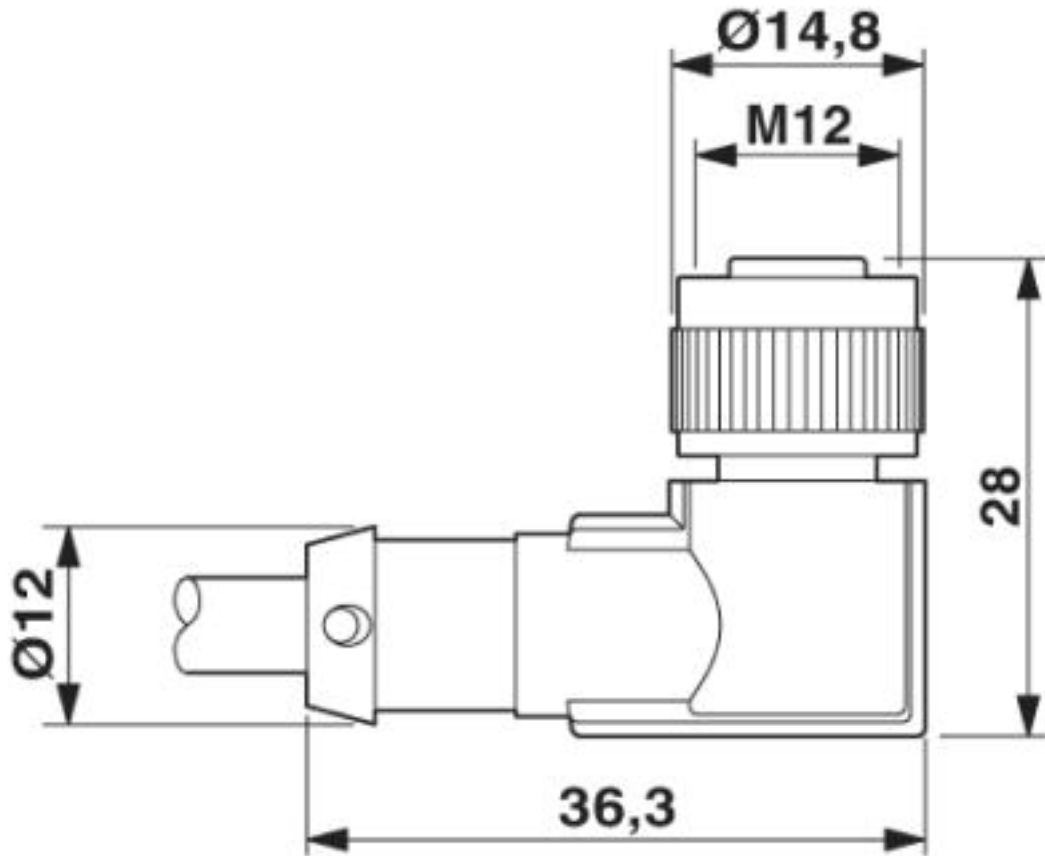
Dimensional drawing



Plug, M12 x 1, straight, shielded

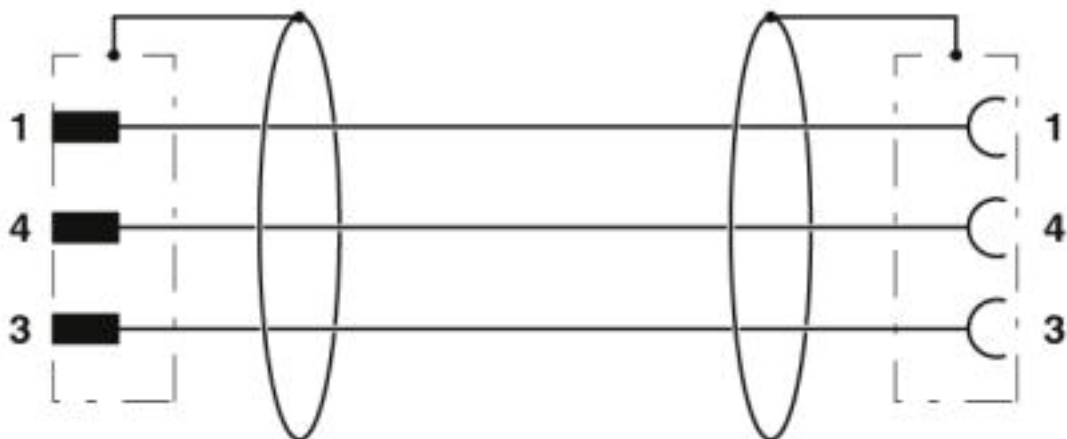
# Sensor/actuator cable - SAC-3P-MS/0,5-542/ FRSH SCO BK - 1406254

Dimensional drawing



M12 x 1 socket, angled, shielded

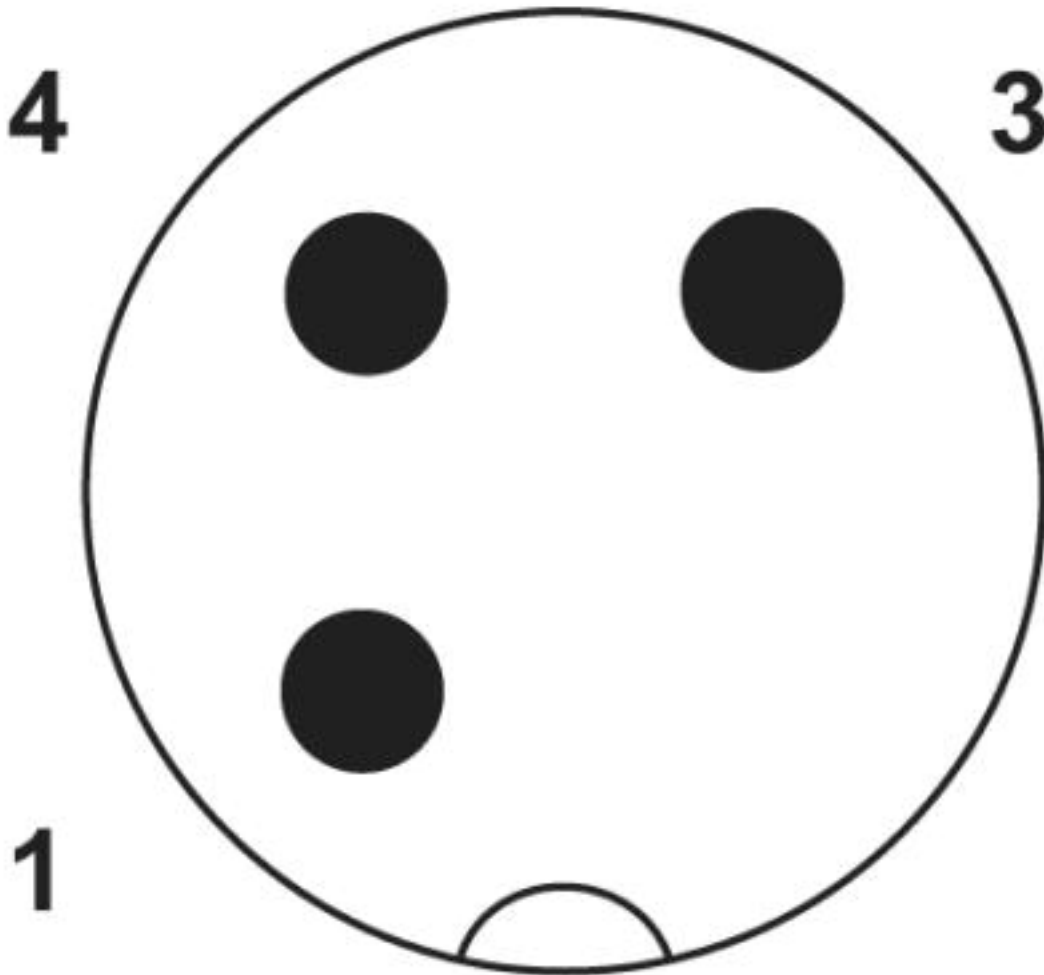
Circuit diagram



Contact assignment of M8 plugs / M12 sockets

# Sensor/actuator cable - SAC-3P-MS/0,5-542/ FRSH SCO BK - 1406254

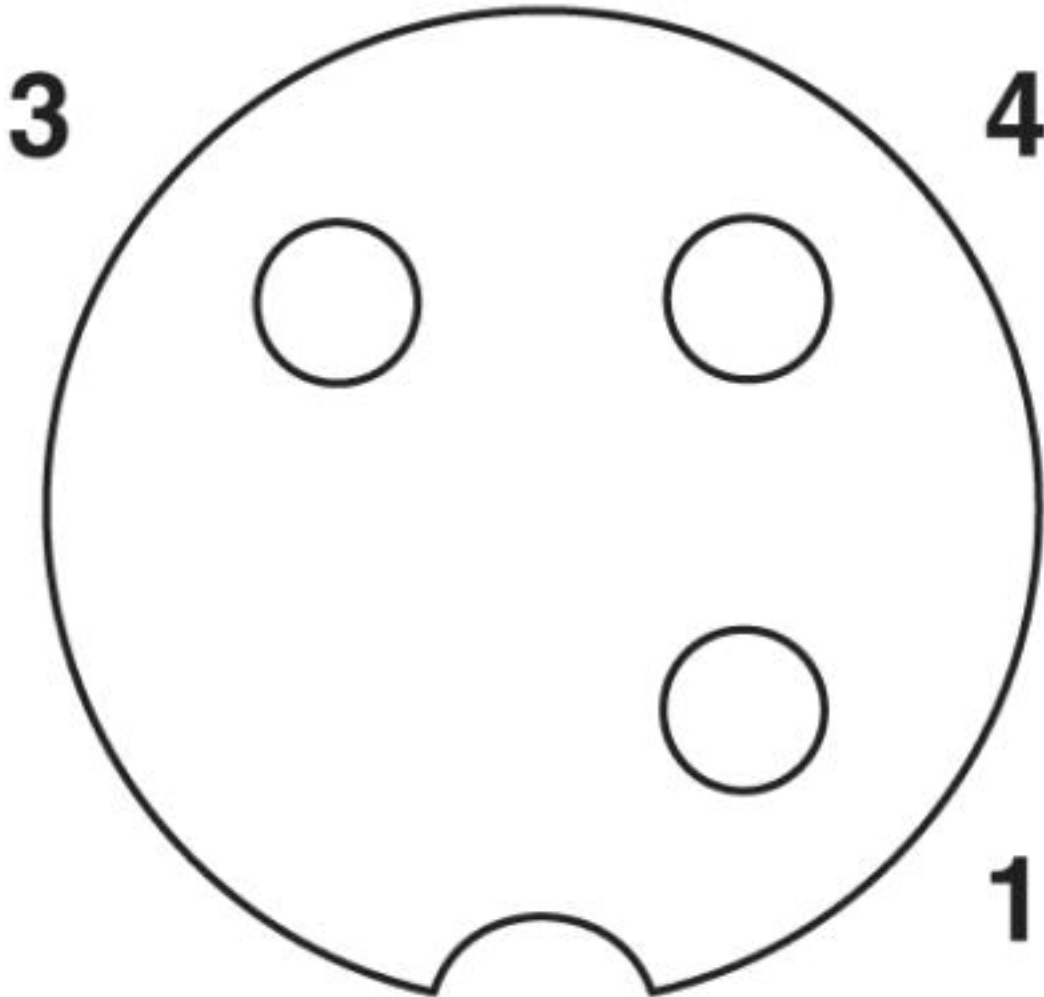
Schematic diagram



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

# Sensor/actuator cable - SAC-3P-MS/0,5-542/ FRSH SCO BK - 1406254

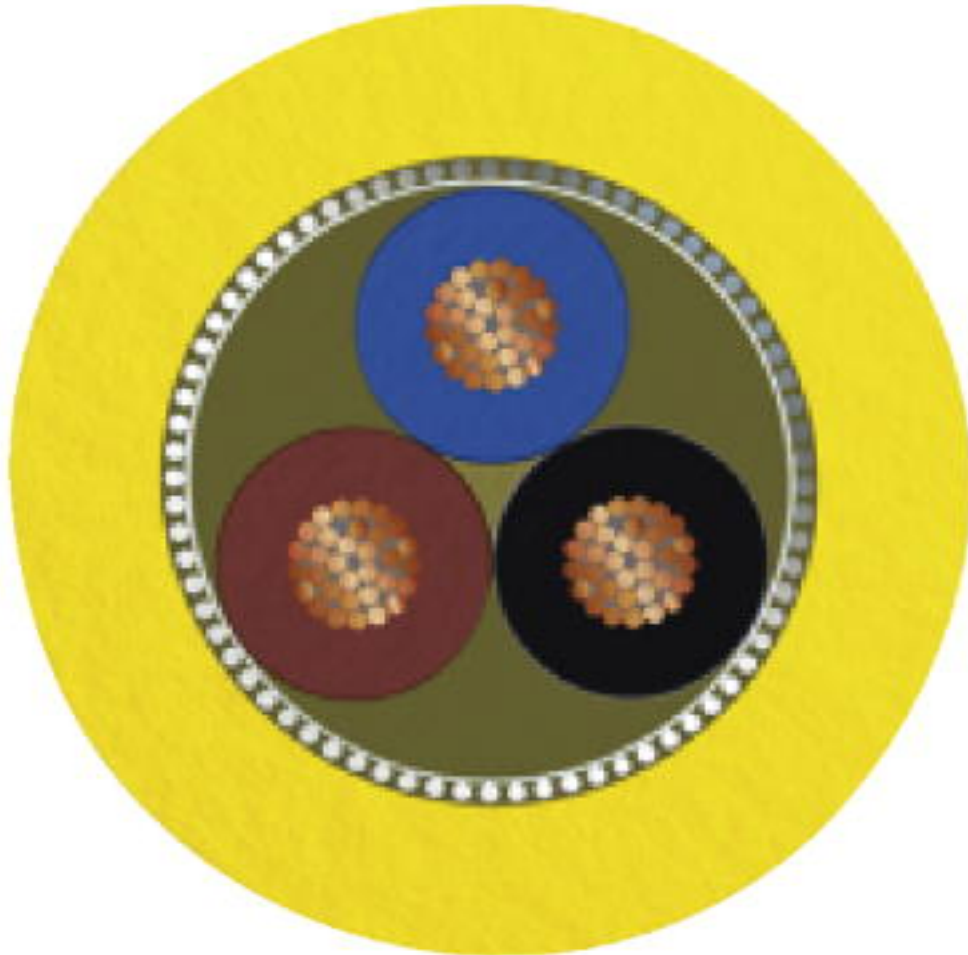
Schematic diagram



Pin assignment M12 socket, 3-pos., A-coded, view female side

# Sensor/actuator cable - SAC-3P-MS/0,5-542/ FRSH SCO BK - 1406254

Cable cross section



PVC yellow 105 °C [542]

## Approvals

Approvals

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Approvals

UL Listed / cUL Listed / EAC / cULus Listed

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Ex Approvals

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Approval details

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## Approvals

|                    |  |                                                                                                                                                       |               |
|--------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 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                                                                                                                                                   |               |

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

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

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