

## Sensor/actuator cable - SAC-5P-MR/ 0,5-542/ FS SCO BK - 1406161

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Sensor/actuator cable, 5-position, PVC, yellow, Plug angled M12 SPEEDCON, A-coded, on Socket straight 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 798891 |
| GTIN                   | 4046356798891                                                                                           |

### 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                             |
|                                 | IP68                             |

#### General

|                              |                               |
|------------------------------|-------------------------------|
| Rated current at 40°C        | 4 A                           |
| Rated voltage                | 48 V AC                       |
|                              | 60 V DC                       |
| Number of positions          | 5                             |
| 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                       | 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, white, gray   |
| Overall twist                                 | 5 wires around filler to the core |
| External sheath, color                        | yellow                            |
| External cable diameter D                     | 5.4 mm ±0.2 mm                    |
| Minimum bending radius, flexible installation | 8 x D                             |
| Cable weight                                  | 43 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. 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                      |

# Sensor/actuator cable - SAC-5P-MR/ 0,5-542/ FS SCO BK - 1406161

## Technical data

### Cable

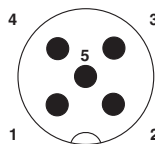
|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Ambient temperature (operation) | -30 °C ... 105 °C (cable, fixed installation)   |
|                                 | -5 °C ...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

### Environmental Product Compliance

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

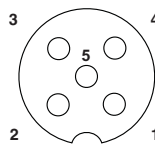
## Drawings

Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



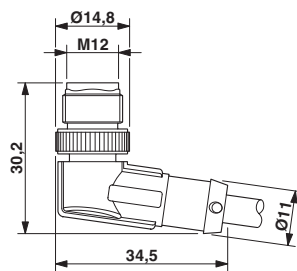
Pin assignment M12 socket, 5-pos., A-coded, female side

Cable cross section



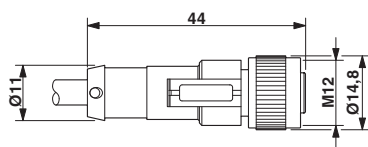
PVC yellow 105 °C [542]

Dimensional drawing



M12 x 1 male plug, angled

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

## Approvals

### Approvals

## Sensor/actuator cable - SAC-5P-MR/ 0,5-542/ FS SCO BK - 1406161

### 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 |                                                                                   | 125 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 |                                                                                     | 125 V                                                                                                                                                 |               |
| Nominal current IN |                                                                                     | 4 A                                                                                                                                                   |               |

|     |                                                                                     |                          |
|-----|-------------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.AI30.B.00767 |
|-----|-------------------------------------------------------------------------------------|--------------------------|

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

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