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Sensor/Actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12 SPEEDCON, A-coded, Cable length: 3 m

### **Product Features**





## **Key Commercial Data**

| Packing unit                         | 1 pc     |
|--------------------------------------|----------|
| Weight per Piece (excluding packing) | 128.76 g |
| Custom tariff number                 | 85444290 |
| Country of origin                    | Poland   |

### Technical data

### **Dimensions**

| Length of cable                            | 3 m   |
|--|-------|
| Stripping length of the free conductor end | 50 mm |

#### 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         | 60 V |



# Technical data

### General

| Number of positions          | 5                             |
|------------------------------|-------------------------------|
| Contact resistance           | $\leq 5~\text{m}\Omega$       |
| Insulation resistance        | $\geq$ 100 M $\Omega$         |
| Coding                       | A - standard                  |
| Standards/regulations        | M12 connector IEC 61076-2-101 |
| Status display               | No                            |
| Protective circuit/component | Unwired                       |
| Overvoltage category         | II                            |
| Pollution degree             | 3                             |
| Insertion/withdrawal cycles  | ≥ 100                         |
| Torque                       | 0.4 Nm (M12 connector)        |

## Material

| Flammability rating according to UL 94 | НВ  |
|--|---|
| 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   |

## Cable

| Cable type                                    | PUR halogen-free black                  |
|---|---|
| Cable type (abbreviation)                     | PUR                                     |
| Cable abbreviation                            | Li9Y11Y                                 |
| UL AWM style                                  | 20549 / 10493 (80°C/300 V)              |
| Conductor cross section                       | 5x 0.34 mm² (signal line)               |
| AWG signal line                               | 22                                      |
| Conductor structure signal line               | 42x 0.10 mm                             |
| Core diameter including insulation            | 1.27 mm ±0.02 mm (signal line)          |
| Thickness, insulation                         | ≥ 0.21 mm                               |
| Wire colors                                   | brown, white, blue, black, green-yellow |
| Overall twist                                 | 5 wires around filler to the core       |
| External sheath, color                        | black-gray RAL 7021                     |
| Outer sheath thickness                        | approx. 0.7 mm                          |
| External cable diameter D                     | 5 mm ±0.15 mm                           |
| Smallest bending radius, fixed installation   | 25 mm                                   |
| Smallest bending radius, movable installation | 50 mm                                   |



# Technical data

## Cable

| Number of bending cycles        | 4000000   |
|---------------------------------|---|
| Bending radius                  | 50 mm   |
| Traversing path                 | 10 m  |
| Traversing rate                 | 3 m/s   |
| Acceleration                    | 10 m/s²   |
| Cable weight                    | 35 kg/km  |
| Outer sheath, material          | PUR   |
| Material conductor insulation   | PP  |
| Conductor material              | Bare Cu litz wires  |
| Insulation resistance           | $\geq$ 16 G $\Omega$ *km (at 20 °C)                                 |
| Conductor resistance            | max. 58 Ω/km (at 20 °C)   |
| Nominal voltage, cable          | 300 V   |
| Test voltage, cable             | 3000 V  |
| Special properties              | Flexible cable conduit capable                                      |
|                                 | Silicone-free   |
|                                 | Free of substances which would hinder coating with paint or varnish |
|                                 | Flexible  |
| Flame resistance                | in accordance with DIN UL-Style 20549                               |
| Halogen-free                    | in accordance with DIN VDE 0472 part 815                            |
| Resistance to oil               | in accordance with DIN EN 60811-2-1                                 |
| Other resistance                | Highly resistant to acids, alkaline solutions and solvents          |
|                                 | hydrolysis and microbe resistant                                    |
|                                 | Resistant to salt water   |
|                                 | partly UV-resistant in accordance with DIN EN ISO 4892-2-A          |
| Ambient temperature (operation) | -40 °C 80 °C (cable, fixed installation)                            |
|                                 | -25 °C 80 °C (cable, flexible installation)                         |

## Classifications

## eCl@ss

| eCl@ss 4.0 | 27060306 |
|------------|----------|
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27279218 |



## Classifications

## **ETIM**

| ETIM 3.0 | EC001855 |
|----------|----------|
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

## **UNSPSC**

| UNSPSC 6.01   | 31251501 |
|---------------|----------|
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |

# Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approvals submitted

## Approval details

| UL Listed (II)     |       |
|--------------------|-------|
|                    |       |
| Nominal current IN | 4 A   |
| Nominal voltage UN | 125 V |

| cUL Listed •          |     |
|-----------------------|-----|
|                       |     |
| Nominal current IN    | 4 A |
| 10/10/2015 Dogg 4 / 5 |     |



## Approvals

| Nominal voltage UN | 125 V |
|--------------------|-------|

EAC



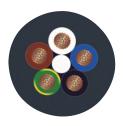
## **Drawings**

### Schematic diagram



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

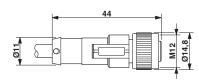
#### Cable cross section



Circuit diagram

PUR halogen-free black [PUR]

Dimensional drawing



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M12 x 1 socket, straight

Contact assignment of the M12 sockets

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