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Sensor/Actuator cable, 8-position, PUR halogen-free, black RAL 9005, shielded, Plug straight M8, on Socket straight M8, Cable length: 0.6 m

#### Why buy this product

- ☑ Easy and safe: 100% electrically tested plug-in components
- Save space with high-pos. connectors
- Reliable signal transmission 360° shielding in environments with electromagnetic interference



### **Key Commercial Data**

| Packing unit                         | 1 STK           |
|--------------------------------------|-----------------|
| GTIN                                 | 4 046356 680455 |
| GTIN                                 | 4046356680455   |
| Weight per Piece (excluding packing) | 44.000 g        |
| Custom tariff number                 | 85444290        |
| Country of origin                    | Poland          |

#### Technical data

#### **Dimensions**

| Length of cable | 0.6 m |
|-----------------|-------|

#### Ambient conditions

| Ambient temperature (operation) | -25 °C 85 °C (Plug / socket) |
|---------------------------------|------------------------------|
| Degree of protection            | IP65                         |
|                                 | IP67                         |



## Technical data

#### General

| Rated current at 40°C        | 1.5 A                        |
|------------------------------|------------------------------|
| Rated voltage                | 30 V                         |
| Number of positions          | 8                            |
| Insulation resistance        | $\geq 100 \text{ M}\Omega$   |
| Coding                       | A - standard                 |
| Standards/regulations        | M8 connector IEC 61076-2-104 |
| Status display               | No                           |
| Protective circuit/component | Unwired                      |
| Degree of pollution          | 3                            |
| Insertion/withdrawal cycles  | ≥ 100                        |
| Torque                       | 0.2 Nm (M8 connectors)       |

#### 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   |

### Standards and Regulations

| Standard designation                   | M8 connector    |
|--|-----------------|
| Standards/regulations                  | IEC 61076-2-104 |
| Flammability rating according to UL 94 | НВ              |

#### Cable

| Cable type                         | PUR halogen-free black                             |
|------------------------------------|--|
| Cable abbreviation                 | Li9YV1-C-V1-11Y                                    |
| UL AWM style                       | 20549  |
| Conductor cross section            | 8x 0.14 mm² (Signal line)                          |
| AWG signal line                    | 26   |
| Conductor structure signal line    | 18x 0.10 mm  |
| Core diameter including insulation | 1 mm ±0.02 mm (Signal line)                        |
| Thickness, insulation              | ≥ 0.21 mm (Signal line)                            |
|                                    | $\geq$ 0.38 mm (Outer cable sheath)                |
| Wire colors                        | white, brown, green, yellow, gray, pink, blue, red |
| Overall twist                      | 8 wires around filler to the core                  |
| Length of twist, overall twist     | 58 mm  |



## Technical data

#### Cable

| Shielding                                     | Tinned copper braided shield                               |
|---|--|
| Optical shield covering                       | 85 %   |
| External sheath, color                        | black-gray RAL 7021  |
| External cable diameter D                     | 5.9 mm ±0.2 mm   |
| Smallest bending radius, fixed installation   | 29.5 mm  |
| Smallest bending radius, movable installation | 59 mm  |
| Number of bending cycles                      | 2000000  |
| Bending radius                                | 59 mm  |
| Traversing path                               | 10 m   |
| Traversing rate                               | 3 m/s  |
| Acceleration                                  | 10 m/s²  |
| Outer sheath, material                        | PUR  |
| Material, filler                              | PE   |
| Material conductor insulation                 | PP   |
| Conductor material                            | Bare Cu litz wires   |
| Insulation resistance                         | 1 GΩ*km (at 20 °C)   |
| Conductor resistance                          | 139 Ω/km (at 20 °C)  |
| Nominal voltage, cable                        | ≤ 300 V AC   |
| Test voltage, cable                           | ≥ 3000 V AC (Spark test)                                   |
| Test voltage Core/Shield                      | ≥ 2000 V AC (for 60 s)                                     |
| Flame resistance                              | according to UL 758/1581 (horizontal)                      |
|   | in accordance with UL 758/1581 FT2                         |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815                   |
|   | in accordance with DIN EN 50267-2-1                        |
| Resistance to oil                             | According to DIN EN 60811-2-1, 168 h at 100°C              |
| Other resistance                              | hydrolysis and microbe resistant                           |
|   | Resistant to salt water                                    |
|   | Low adhesion   |
|   | abrasion-resistant   |
|   | 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)                |

## **Environmental Product Compliance**

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



## **Drawings**

Schematic diagram



M8 plug pin assignment, 8-pos., view of pin side

Schematic diagram

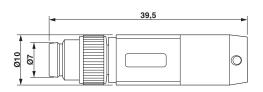


Connector pin assignment of M8 socket, 8-pos., view of socket side

Cable cross section



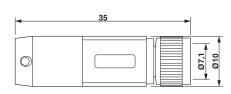
#### Dimensional drawing



PUR halogen-free black [PUR]

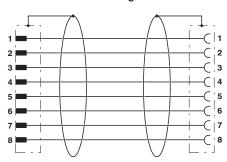
M8 x 1 male plug, straight version

Dimensional drawing



Socket M8 x 1, straight

Circuit diagram



Contact assignment of M8 plugs/sockets

### Classifications

#### eCl@ss

| eCI@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 |



### Classifications

#### eCl@ss

| eCl@ss 8.0 | 27279218 |
|------------|----------|
| eCl@ss 9.0 | 27060311 |

#### **ETIM**

| ETIM 3.0 | EC001855 |
|----------|----------|
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |

#### **UNSPSC**

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

#### Accessories

#### Accessories

#### Conductor marking

Insert label - PABA WH/15 - 1013151



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

#### Insert label - PABA YE/15 - 1013698



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm



#### Accessories

Insert label - PABA RD/15 - 1013944



Insert label, Strip, red, unlabeled, can be labeled with: CMS-P1-PLOTTER, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

#### Marker carrier cable

Conductor marker carrier - PATO 2/15 - 1013122



Conductor marker carrier, transparent, unlabeled, Mounting type: clip on, Cable diameter: 2.8-4.4 mm, Lettering field: 4 x 15 mm

Conductor marker carrier - PATO 3/15 - 1013135



Conductor marker carrier, transparent, unlabeled, Mounting type: clip on, Cable diameter: 4.4-6.7 mm, Lettering field: 4 x 15 mm

Conductor marker carrier - PATO 4/15 - 1013148



Conductor marker carrier, transparent, unlabeled, Mounting type: clip on, Cable diameter: 6.7-10 mm, Lettering field: 4 x 15 mm

#### 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



#### Accessories

Protective cap

Sealing cap - PROT-M 8 FS-PA-CHAIN - 1430857

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 plugs



Screw plug - PROT-M 8 MS-PA-CHAIN - 1430860

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 sockets



#### 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

#### 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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