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Sensor/Actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug angled M8, on Socket straight M8, Cable length: 3 m

### Why buy this product

✓ Our standard: robust halogen-free PUR cable



## **Key Commercial Data**

Packing unit	1 STK
GTIN	4 017918 158910
GTIN	4017918158910
Sales Key	02

### Technical data

#### **Dimensions**

Length of cable	3 m
5	

#### 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	30 V
Number of positions	4
Insulation resistance	≥ 100 MΩ
Coding	A - standard



## Technical data

## General

Standards/regulations	M8 connector IEC 61076-2-104
Status display	No
Protective circuit/component	Unwired
Overvoltage category	П
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 type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
Conductor cross section	4x 0.25 mm² (Signal line)
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Core diameter including insulation	1.17 mm ±0.02 mm (Signal line)
Thickness, insulation	≥ 0.21 mm (Core insulation)
	approx. 0.5 mm (Outer cable sheath)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
External sheath, color	black-gray RAL 7021
External cable diameter D	3.95 mm ±0.15 mm
Smallest bending radius, fixed installation	20 mm
Smallest bending radius, movable installation	40 mm
Number of bending cycles	10000000
Bending radius	44 mm
Traversing path	10 m
Traversing rate	3 m/s



## Technical data

## Cable

Acceleration	5 m/s²
Cable weight	23 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq$ 100 G $\Omega$ *km (at 20 °C)
Conductor resistance	max. 78 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
Flame resistance	in accordance with UL 758/1581 FT2
	DIN EN 60332-2-2 (20 s)
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
	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



Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

Pin assignment M8 socket, 4-pos., view female side

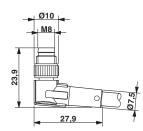


Cable cross section



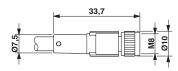
PUR halogen-free black [PUR]

### Dimensional drawing

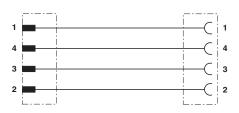


M8 x 1 male plug, angled version

#### Dimensional drawing



### Circuit diagram



Socket M8 x 1, straight

Contact assignment of M8 plugs/sockets

### Schematic diagram



Layout of connector pin assignments

# Approvals

## Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals



## Approvals

### Approval details

UL Listed	LISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal current IN			4 A	
Nominal voltage UN			125 V	

cUL Listed	CUL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal current IN			4 A	
Nominal voltage UN			125 V	

EAC <b>EAC</b>	EAC-Zulassung
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cULus Listed	C UL US			
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