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Sensor/Actuator cable, 8-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket angled M12, A-coded, Cable length: 0.6 m

#### **Product Features**



## Key commercial data

Packing unit	11
GTIN	4 017918 957544
Weight per Piece (excluding packing)	47.0 GRM
Custom tariff number	85444290
Country of origin	Poland

### Technical data

#### **Dimensions**

	Length of cable	0.6 m
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#### Ambient conditions

Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)		
Degree of protection	IP65		
	IP67		
	IP68		

### General

Rated current at 40°C	2 A
Rated voltage	30 V

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## Technical data

### General

Number of positions	8		
Contact resistance	$\leq 5 \text{ m}\Omega$		
Insulation resistance	≥ 100 MΩ		
Coding	A - standard		
Standards/regulations	M12 connector IEC 61076-2-101		
Status display	No		
Surge voltage category	II		
Pollution degree	3		
Insertion/withdrawal cycles	≥ 100		
Torque	0.4 Nm (M12 connector)		

### Material

Inflammability class according to UL 94	НВ		
Contact material	CuZn		
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	8x 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			
Thickness, insulation	≥ 0.21 mm			
Wire colors	white, brown, green, yellow, gray, pink, blue, red			
Overall twist	8 wires around filler to the core			
External sheath, color	Black-gray RAL 7021			
Outer sheath thickness	approx. 0.8 mm			
External cable diameter D	5.9 mm ±0.15 mm			
Minimum bending radius, fixed installation	8 x D			
Minimum bending radius, flexible installation	10 x D			
Minimum bending radius, drag chain applications	10 x D			

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## Technical data

### Cable

Cable weight	46 kg/km		
Outer sheath, material	PUR		
Material, filler	PE		
Material conductor insulation	PP		
Conductor material	Bare Cu litz wires		
Conductor resistance	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 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		
	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	27061801

### **ETIM**

ETIM 2.0	EC000830
ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

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## Classifications

**UNSPSC** 

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

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Approvals

UL Listed / cUL Listed / GOST / cULus Listed

Ex Approvals

Approvals submitted

### Approval details

UL Listed (I)	
Nominal current IN	2 A
Nominal voltage UN	30 V

cUL Listed **				
Nominal current IN	2 A			
Nominal voltage UN	30 V			



## Approvals

GOST 💇

cULus Listed • 🐠 😘

#### Accessories

Accessories

Conductor marking

Insert label - PABA WH/15 - 1013151



Insert label, Strip, white, Unlabeled, Can be labeled with: 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: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Insert label - PABA RD/15 - 1013944



Insert label, Strip, red, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Marker carrier cable



### Accessories

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

### Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 sockets



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### Accessories

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



### Safety locking

Fuse clip - SAC-M12-EXCLIP-M - 1558988



Fuse clip for the pin side of various M12 sensor/actuator connectors prevents plug-in connections being interrupted without using a tool

Fuse clip - SAC-M12-EXCLIP-F - 1558991



Fuse clip for the socket side of various M12 sensor/actuator connectors prevents plug-in connections being interrupted without using a tool

#### Screwdriver tools

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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### Accessories

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

### Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

## **Drawings**

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

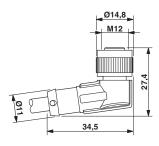


Cable cross section



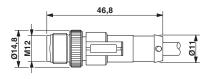
PUR halogen-free black [PUR]

Dimensioned drawing



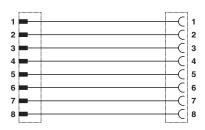
M12 x 1 socket, angled

### Dimensioned drawing



M12 x 1 plug, straight

### Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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