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Sensor/Actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on free cable end, Cable length: 1.5 m

## Why buy this product



# Key commercial data

Packing unit	1 pc
GTIN	4 017918 957353
Weight per Piece (excluding packing)	78.5 g
Custom tariff number	85444290
Country of origin	Poland

# Technical data

#### **Dimensions**

Length of cable	1.5 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	2 A
Rated voltage	30 V
Number of positions	8
Contact resistance	$\leq 5 \text{ m}\Omega$



# Technical data

# General

Insulation resistance	$\geq$ 100 M $\Omega$
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	Unwired
Surge voltage category	П
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

## Cable

Odbio	
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
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
Number of bending cycles	4000000
Bending radius	59 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	46 kg/km
Outer sheath, material	PUR



# Technical data

# Cable

Material, filler	PE
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Conductor resistance	$\leq 78 \ \Omega/km$
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
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
	Low adhesion
	abrasion-resistant
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

## **ETIM**

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

## **UNSPSC**

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501



# Classifications

# **UNSPSC**

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 (IL)			
Nominal current IN	2 A		
Nominal voltage UN	30 V		

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

cULus Listed • • • • • • • • • • • • • • • • • • •		

# Accessories

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

### **Cutting tools**

Diagonal cutter - CUTFOX-S VDE - 1212207



Diagonal cutter for copper and aluminum conductors, VDE-tested

### Marker carrier cable

Conductor marker carrier - PATG 2/15 - 1013038



Conductor marker carrier, transparent, unlabeled, Mounting type: slide on, Cable diameter: 2-4 mm, Lettering field: 4 x 15 mm



## Accessories

Conductor marker carrier - PATG 3/15 - 1013041



Conductor marker carrier, transparent, unlabeled, Mounting type: slide on, Cable diameter: 4-7 mm, Lettering field: 4 x 15 mm

Conductor marker carrier - PATG 4/15 - 1013054



Conductor marker carrier, transparent, unlabeled, Mounting type: slide on, Cable diameter: 6-10 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



## Safety locking

Locking clip - SAC-M12-EXCLIP-M - 1558988



Screwdriver tools



## Accessories

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

#### 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

### Stripping tool

Stripping tool - WIREFOX SAC-1 - 1212757



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from  $\emptyset$  of 3.2 to 4.4 mm, any stripping length

#### Stripping tool - WIREFOX SAC - 1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from  $\emptyset$  of 4.4 to 7 mm, any stripping length

### Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

### Torque tool



## Accessories

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



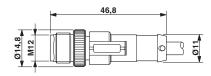
Pin assignment M12 plug, 8-pos., view plug side

Cable cross section

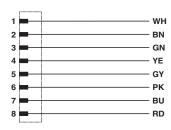


PUR halogen-free black [PUR]

Dimensioned drawing



Circuit diagram



M12 x 1 plug, straight

Contact assignment of the M12 plug

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