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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, shielded, Plug straight M12, A-coded, on Socket angled M12, A-coded, Cable length: 3 m

Product Features

- Easy and safe: 100% electrically tested plug-in components
- Reliable signal transmission 360° shielding in environments with electromagnetic interference



Key commercial data

Packing unit	11
Weight per Piece (excluding packing)	161.9 GRM
Custom tariff number	85444290
Country of origin	Poland

Technical data

Dimensions

Length of cable	3 m
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Ambient conditions

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

General

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	3
Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	≥ 100 MΩ



Technical data

General

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	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 shielded	
Cable type (abbreviation)	PUR	
Cable abbreviation	Li9Y-VI-C-VI-11Y	
UL AWM style	20549	
Conductor cross section	3x 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 (Core insulation)	
	approx. 1.1 mm (Outer cable sheath)	
Wire colors	brown, blue, black	
Overall twist	3 wires, twisted	
Shielding	Braided copper wires	
Optical shield covering	85 %	
External sheath, color	Black-gray RAL 7021	
External cable diameter D	5.9 mm ±0.15 mm	
Smallest bending radius, fixed installation	29.5 mm	
Smallest bending radius, movable installation	59 mm	
Number of bending cycles	4000000	
Bending radius	59 mm	



Technical data

Cable

Traversing path	10 m	
Traversing rate	3 m/s	
Acceleration	10 m/s²	
Cable weight	44 kg/km	
Outer sheath, material	PUR	
Material conductor insulation	PP	
Conductor material	Bare Cu litz wires	
Insulation resistance	\geq 100 G Ω *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	
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



Classifications

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 / GOST / GOST / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed (II)	
Nominal current IN	4 A
Nominal voltage UN	300 V

cUL Listed **	
Nominal current IN	4 A
Nominal voltage UN	300 V



Approvals

GOST C		
GOST 🕙		
cULus Listed (10)		

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





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



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 plug, 3-pos., A-coded, view male side

Schematic diagram



Pin assignment M12 socket, 3-pos., A-coded, view female side

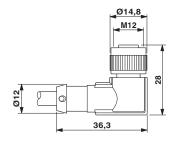


Cable cross section



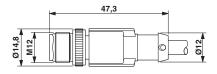
PUR halogen-free black shielded [PUR]

Dimensioned drawing



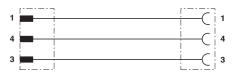
M12 x 1 socket, angled, shielded

Dimensioned drawing

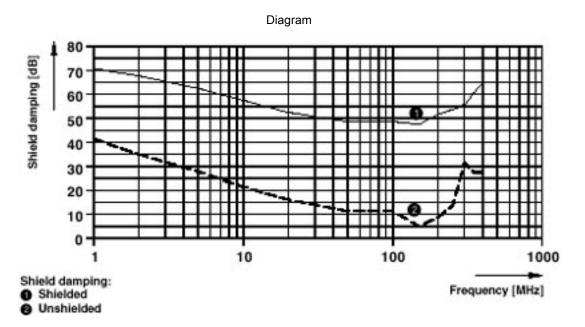


Plug, M12 x 1, straight, shielded

Circuit diagram



Contact assignment of M8 plugs / M12 sockets





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