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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Free cable end, on Socket angled M12, A-coded, Cable length: 20 m



Key commercial data

Packing unit	11
Weight per Piece (excluding packing)	520.0 GRM
Custom tariff number	85444290
Country of origin	Poland

Technical data

Dimensions

Length of cable	20 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	4 A
Rated voltage	250 V
Number of positions	3
Contact resistance	$\leq 5~\text{m}\Omega$
Insulation resistance	\geq 100 M Ω
Coding	A - standard
Status display	No



Technical data

General

Surge voltage category	П
Pollution degree	3
Insertion/withdrawal cycles	≥ 100

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	
Cable type (abbreviation)	PUR	
Cable abbreviation	Li9Y11Y	
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. 0.8 mm (Outer cable sheath)	
Wire colors	brown, blue, black	
Overall twist	3 wires, twisted	
External sheath, color	Black-gray RAL 7021	
External cable diameter D	4.4 mm ±0.15 mm	
Smallest bending radius, fixed installation	22 mm	
Smallest bending radius, movable installation	44 mm	
Number of bending cycles	4000000	
Bending radius	44 mm	
Traversing path	10 m	
Traversing rate	3 m/s	
Acceleration	10 m/s²	
Cable weight	26 kg/km	
Outer sheath, material	PUR	
Material conductor insulation	PP	



Technical data

Cable

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
eCI@ss 8.0	27061801

ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

UNSPSC

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



Classifications

UNSPSC

UNSPSC 13.2	31251501	
Approvals		
Approvals		
Approvals		
JL Listed / cUL Listed / cULus Listed		
Ex Approvals		
Approvals submitted		
Approval details		
UL Listed (
Nominal current IN	4 A	
Nominal voltage UN	300 V	
cUL Listed ••••		
New York and Wi		
Nominal current IN	4 A	
Nominal voltage UN	300 V	

Accessories

cULus Listed • 🕦 😘

Accessories

Conductor marking



Accessories

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

Cable-cutting tool - 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

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

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



Safety locking



Accessories

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

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 - 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



Accessories

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, 3-pos., A-coded, view female side

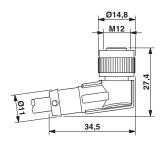
Cable cross section



PUR halogen-free black [PUR]

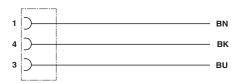


Dimensioned drawing



M12 x 1 socket, angled

Circuit diagram



Contact assignment of the M12 socket

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