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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Free cable end, on A valve plug, with 1 LED, connected with Varistor, Cable length: 5 m

#### **Product Features**

- ☑ Easy and safe: 100% electrically tested plug-in components
- ☑ Robust valve connector with varistor as protective circuit
- ☑ Convenient: increased machine availability thanks to quick and easy diagnostics



#### Key commercial data

Packing unit	1 PCE
GTIN	4 046356 510271
Custom tariff number	85444290
Country of origin	POLAND

#### Technical data

#### **Dimensions**

Length of cable	5 m
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#### Ambient conditions

Ambient temperature (operation)	-20 °C 85 °C (valve plug)
Degree of protection	IP65
	IP67
	IP68

#### General

Rated current at 40°C	4 A



## Technical data

#### General

Rated voltage	230 V
Number of positions	3
Contact resistance	$\leq 5~\text{m}\Omega$
Insulation resistance	$\geq$ 100 M $\Omega$
Standards/regulations	Valve connector EN 175301-803
Status display	1 LED
Protective circuit/component	230 V varistor
Surge voltage category	III
Pollution degree	3
Torque	0.6 Nm (Valve plug-in connector)

#### Material

Inflammability class according to UL 94	V0
Valve plug contact material	CuSn
Valve plug contact surface material	Sn
Valve plug contact insert material	PA 66
Material housing valve plug	TPU
Sealing material	TPU (Seal molded)

#### Cable

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
UL AWM style	20549
Conductor cross section	3x 0.5 mm²
AWG signal line	20
Conductor structure signal line	28x 0.15 mm
Core diameter including insulation	1.5 mm ±0.05 mm (signal line)
Wire colors	Black 1, black 2, green/yellow
Overall twist	3 wires, twisted
External sheath, color	Black-gray RAL 7021
External cable diameter D	4.5 mm ± 0.2 mm
Smallest bending radius, fixed installation	22.5 mm
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s²



## Technical data

#### Cable

Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	min. 20 MΩ*km
Conductor resistance	39 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 1200 V
Flame resistance	According to DIN VDE 0482
	According to DIN EN 50265-2-1
Halogen-free	in accordance with DIN VDE 0472 part 815
Other resistance	Largely oil-resistant
	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-20 °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 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
UNSPSC 13.2	31251501



Approvals	
Approvals	
Approvals	
GOST	
Ex Approvals	
Approvals submitted	
Approval details	
GOST C	
Accessories	
Accessories	
Assembly	
Screw - SAC-V-SCREW-M	3-29 KNURL - 1403779
	Fillister head screw with plastic knurl, M3 x 40
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



#### Accessories

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

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

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:  $4 \times 15$  mm



#### Accessories

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

#### Tools

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



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

Screw insert - SF-BIT-PH 1-70 - 1212582



Screw bit, PH crosshead, E6.3-1/4" drive, size: PH 1 x 70 mm, hardened, suitable for holder according to DIN 3126-F6.3/ ISO 1173

Cable-cutting tool - CUTFOX-S VDE - 1212207



Diagonal cutter for copper and aluminum conductors, VDE-tested

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



#### Accessories

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

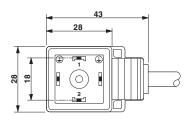
## **Drawings**

#### Schematic diagram



Valve connector pin assignment, type A

#### Dimensioned drawing



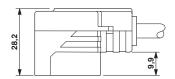
Valve connector, type A

#### Cable cross section



PUR halogen-free black [PUR]

#### Dimensioned drawing



Valve connector, type A, side view



# Circuit diagram BK 2 BK 1 GNYE (PE)

Contact assignment of the valve plug

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