PHŒNIX CONTACT

Sensor/Actuator cable - SAC-3P- 5,0-PUR/BI-1L-Z - 1435250

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Sensor/Actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Valve connector BI (11 mm), with 1 LED, connected with Z diode, Cable length: 5 m

Why buy this product

☑ Easy and safe: 100% electrically tested plug-in components

☑ Robust valve connector with Zener diode as protective circuit

☑ Convenient: increased machine availability thanks to quick and easy diagnostics

☑ Our standard: robust halogen-free PUR cable

RoHS

Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 413589
GTIN	4046356413589
Weight per Piece (excluding packing)	180.000 g
Custom tariff number	85444290
Country of origin	Poland

Technical data

Dimensions

Length of cable	5 m
Stripping length of the free conductor end	50 mm
Central screw valve connector	M3 x 29

Ambient conditions

Ambient temperature (operation)	-20 °C ... 85 °C (valve plug)

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Technical data

Ambient conditions

Degree of protection	IP65
	IP67

General

Rated current at 40°C	4 A
Rated voltage	24 V
Number of positions	3
Insulation resistance	≥ 100 MΩ
Standards/regulations	Valve connector EN 175301-803
Status display	1 LED
Protective circuit/component	Z diode
Overvoltage category	III
Degree of pollution	3
Torque	0.6 Nm (Valve connector)

Material

Flammability rating 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)

Standards and Regulations

Standard designation	Valve connector
Standards/regulations	EN 175301-803
Flammability rating according to UL 94	V0

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

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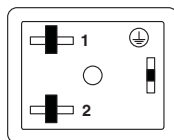
Technical data

Cable

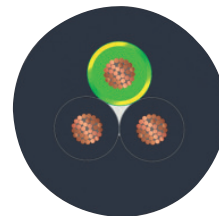|	
External sheath, color	black-gray RAL 7021
External cable diameter D	4.5 mm ±0.2 mm
Smallest bending radius, fixed installation	22.5 mm
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s²
Outer sheath, material	PUR
Material conductor 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)

Drawings

Schematic diagram

Cable cross section

Valve connector pin assignment, type BI
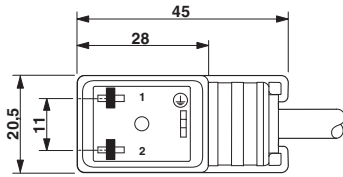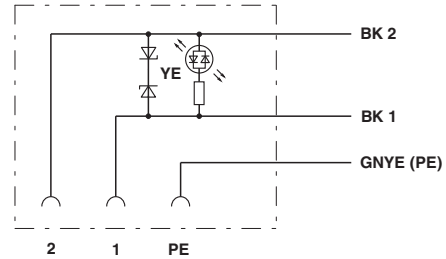
PUR halogen-free black [PUR]

Sensor/Actuator cable - SAC-3P- 5,0-PUR/BI-1L-Z - 1435250
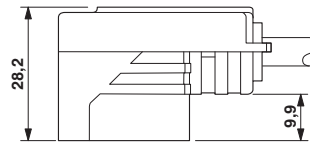
Dimensional drawing

Valve connector, type BI

Circuit diagram

Contact assignment of the valve plug

Dimensional drawing

Valve connector, type BI, side view

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
eCl@ss 9.0	27060312

ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855
ETIM 6.0	EC001855

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501

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Classifications

UNSPSC

UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

Approvals

Approvals

Approvals

EAC / CSAus

Ex Approvals

Approval details

EAC	EAC	EAC-Zulassung

CSAus		http://www.csagroup.org/services/testing-and-certification/certified-product-listing/	13631
Nominal current IN		6 A	
Nominal voltage UN		24 V	

Accessories

Accessories

Conductor marking

Insert label - PABA WH/23 - 1013779

Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, Mounting type: Thread on, Cable diameter: 1.5-35 mm, Lettering field: 23 x 4 mm

Sensor/Actuator cable - SAC-3P- 5,0-PUR/BI-1L-Z - 1435250

Accessories

Insert label - PABA YE/23 - 1013782

Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, Mounting type: Thread on, Cable diameter: 1.5-35 mm, Lettering field: 23 x 4 mm

Insert label - PABA WH/15 - 1013151

Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-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: CMS-P1-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: CMS-P1-PLOTTER, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Corrugated pipe

Protective hose - WP-PA HF 13,0 BK - 3240681

Polyamide protective hose, inflammability class V0, UV resistant

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Accessories

Protective hose - WP-PA HF-HB 13,0 BK - 3240839

Polyamide protective hose, inflammability class HB, UV resistant

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Cutting tools

Diagonal cutter - CUTFOX-S VDE - 1212207

Diagonal cutter for copper and aluminum conductors, VDE 1000 V AC/ 1500 V DC-tested

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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: 15 x 4 mm

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Conductor marker carrier - PATG 3/15 - 1013041

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

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Conductor marker carrier - PATG 4/15 - 1013054

Conductor marker carrier, transparent, unlabeled, Mounting type: slide on, Cable diameter: 6-10 mm, Lettering field: 15 x 4 mm

Sensor/Actuator cable - SAC-3P- 5,0-PUR/BI-1L-Z - 1435250

Accessories

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

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Mounting material

Screw - SAC-V-SCREW-M3-29 KNURL - 1403779

Fillister head screw with plastic knurl, M3 x 40

Screwdriver tools

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

Stripping tool

Stripping tool - WIREFOX SAC-1 - 1212757

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

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Accessories

Stripping tool - WIREFOX SAC - 1212623

Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø 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

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

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

Protective hose adapter - WP-CTA POM 13,0 BK - 1422884

Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel