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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Sensor/Actuator cable - SAC-3P-M 8MR/ 1,5-PUR SH - 1521669

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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, shielded, Plug angled M8, on Free cable end, Cable length: 1.5 m

### Product Features

- Easy and safe: 100% electrically tested plug-in components
- Our standard: robust halogen-free PUR cable
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference



### Key commercial data

Packing unit	1 PCE
Catalog page	Page 127 (PC-2011)
GTIN	 4 017918 968670
Custom tariff number	85444290
Country of origin	POLAND

### Technical data

#### General data

Rated current at 40°C	4 A
Rated voltage	60 V
Number of positions	3
Volume resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Length of cable	1.5 m
Stripping length of the free conductor end	50 mm
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

#### General characteristics

# Sensor/Actuator cable - SAC-3P-M 8MR/ 1,5-PUR SH - 1521669

## Technical data

### General characteristics

Standards/regulations	M8 plug-in connector IEC 61076-2-104
Coding	A - standard
Surge voltage category	II
Pollution degree	3
Degree of protection	IP65/67
Insertion/withdrawal cycles	≥ 100
Torque	0.2 Nm (M8 plug-in connectors)
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
Status display	No

### Conductor data

Cable type	PUR halogen-free black shielded
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y-V1-C-V1-11Y
UL AWM style	20549
Conductor cross section	3x 0.25 mm <sup>2</sup> (signal line)
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Core diameter including insulation	1.17 mm ±0.02 mm (signal line)
Thickness, insulation	≥ 0.21 mm (Core insulation)
Thickness, insulation	≥ 0.76 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 mm ± 0.2 mm
Smallest bending radius, fixed installation	25 mm
Smallest bending radius, movable installation	50 mm
Number of bending cycles	4000000
Bending radius	50 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>

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## Technical data

### Conductor data

Cable weight	33 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 GΩ*km
Conductor resistance	max. 79 Ω/km
Nominal voltage, conductor	300 V
Test voltage, conductor	3000 V
Special properties	Flexible cable conduit capable
Special properties	Silicone-free
Special properties	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
Other resistance	hydrolysis and microbe resistant
Other resistance	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
Ambient temperature (operation)	-25 °C ... 80 °C (cable, flexible installation)

## Classifications

### ETIM

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

### UNSPSC

UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501
UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501

### eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306

## Sensor/Actuator cable - SAC-3P-M 8MR/ 1,5-PUR SH - 1521669

### Classifications

#### eCl@ss

eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801

### Approvals

#### Approvals

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#### Approvals

UL Listed / cUL Listed / GOST / cULus Listed

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#### Ex Approvals

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#### Approvals submitted

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#### Approval details

UL Listed 	
Nominal current IN	4 A
Nominal voltage UN	125 V

cUL Listed 	
Nominal current IN	4 A
Nominal voltage UN	125 V

GOST 	
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## Sensor/Actuator cable - SAC-3P-M 8MR/ 1,5-PUR SH - 1521669

### Approvals

cULus Listed 

### Accessories

#### Accessories

#### 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

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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

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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

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Conductor marker carrier - PATG 2/23 - 1013850



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 2-4 mm, Lettering field: 4 x 23 mm

## Sensor/Actuator cable - SAC-3P-M 8MR/ 1,5-PUR SH - 1521669

### Accessories

Conductor marker carrier - PATG 3/23 - 1013863



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 4-7 mm, Lettering field: 4 x 23 mm

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Conductor marker carrier - PATG 4/23 - 0808011



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 6-10 mm, Lettering field: 4 x 23 mm

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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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### Protection and sealing elements

Sealing cap - PROT-M 8 FS-PA-CHAIN - 1430857



M8 sealing cap made of plastic with fixing band for sensor cables, for M8 plugs

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### Tools

Cable-cutting tool - CUTFOX-S VDE - 1212207



Diagonal cutter for copper and aluminum conductors, VDE-tested

## Sensor/Actuator cable - SAC-3P-M 8MR/ 1,5-PUR SH - 1521669

### Accessories

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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

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Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

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Torque screwdriver - TSD 02 SAC - 1208487



Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors

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Tool - SAC BIT M8-D10 - 1208461



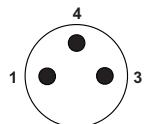
Nut for assembling sensor/actuator cables with M8 connector and for M8 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

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### Drawings

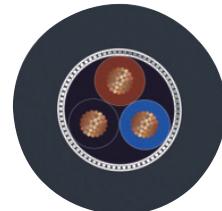
## Sensor/Actuator cable - SAC-3P-M 8MR/ 1,5-PUR SH - 1521669

Schematic diagram



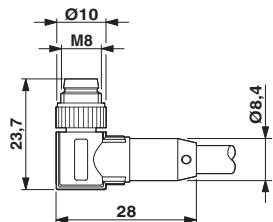
Pin assignment M8 plug, 3-pos., view male side

Cable cross section



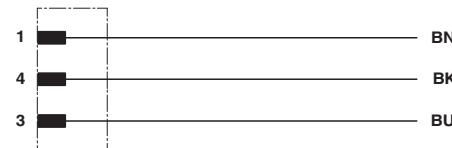
PUR halogen-free black shielded [PUR]

Dimensioned drawing



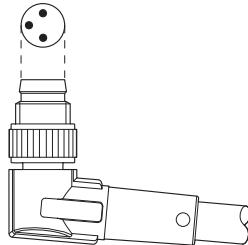
M8 x 1 male plug, angled version

Circuit diagram



Contact assignment of the M8 plug

Schematic diagram



Layout of connector pin assignments