



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## Sensor/Actuator cable - SAC-4P-M12MS/10,0-PUR P - 1442382

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Sensor/Actuator cable, 4-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M12, A-coded, on Free cable end, Cable length: 10 m, with plastic knurl

### Key commercial data

Packing unit	0
Minimum order quantity	1
Catalog page	Page 132 (PC-2011)
GTIN	 4 046356 534963
Custom tariff number	85444290
Country of origin	POLAND

### Technical data

#### General data

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	4
Volume resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Length of cable	10 m
Stripping length of the free conductor end	50 mm
Ambient temperature (operation)	-25 °C ... 90 °C (Male connector / female connector)

#### General characteristics

Standards/regulations	M12 connector IEC 61076-2-101
Coding	A - standard
Surge voltage category	II
Pollution degree	3
Degree of protection	IP65/IP68/IP69K
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF

# Sensor/Actuator cable - SAC-4P-M12MS/10,0-PUR P - 1442382

## Technical data

### General characteristics

Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Polyamide
Status display	No

### Conductor data

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
UL AWM Style	20549
Conductor cross section	4x 0.34 mm <sup>2</sup> (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)
Thickness, insulation	≥ 0.8 mm (Outer cable sheath)
External cable diameter	4.7 mm ±0.15 mm
Wire colors	brown, white, blue, black
External sheath, color	Black-gray RAL 7021
Insulation resistance	≥ 1 GΩ*km
Conductor resistance	max. 58 Ω/km (at 20 °C)
Nominal voltage, conductor	≤ 300 V
Test voltage, conductor	≥ 3000 V
Overall twist	4 wires, twisted
Length of twist, overall twist	49.5 mm
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Cable weight	30 kg/km
Smallest bending radius, fixed installation	23.5 mm
Smallest bending radius, movable installation	47 mm
Number of bending cycles	4000000
Bending radius	47 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
Ambient temperature (operation)	-25 °C ... 80 °C (cable, flexible installation)
Special properties	Flexible cable conduit capable
Special properties	Silicone-free
Special properties	Free of substances which would hinder coating with paint or varnish
Special properties	Flexible
Flame resistance	in accordance with DIN UL-Style 20549
Flame resistance	in accordance with FT1 as per UL 758

# Sensor/Actuator cable - SAC-4P-M12MS/10,0-PUR P - 1442382

## Technical data

### Conductor data

Halogen-free	in accordance with DIN VDE 0472 part 815
Halogen-free	in accordance with DIN EN 50267-2-1
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

## Classifications

### eclass

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27279218
eCl@ss 7.0	27279218

### etim

ETIM 2.0	EC000830
ETIM 3.0	EC001855
ETIM 4.0	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



## Sensor/Actuator cable - SAC-4P-M12MS/10,0-PUR P - 1442382

### Approvals

#### Approval details



### Accessories

#### Accessories

##### Fuse

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

### Marking

Insert label - PABA WH/15 - 1013151



Insert label, 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, 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, red, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

## Sensor/Actuator cable - SAC-4P-M12MS/10,0-PUR P - 1442382

### Accessories

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

---

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

---

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

---

Marker pen - B-STIFT - 1051993



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

---

### Protection and sealing elements

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873



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

---

### Tools

## Sensor/Actuator cable - SAC-4P-M12MS/10,0-PUR P - 1442382

### Accessories

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 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 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

---

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

# Sensor/Actuator cable - SAC-4P-M12MS/10,0-PUR P - 1442382

## Accessories

---

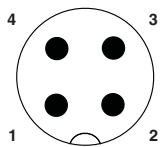
Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

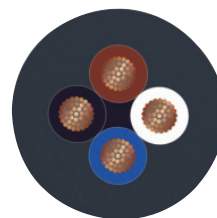
## Drawings

Schematic diagram



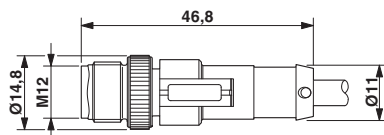
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Cable cross section



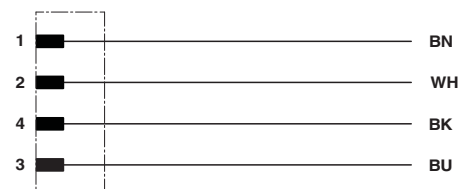
PUR halogen-free black [PUR]

Dimensioned drawing



M12 x 1 male connector, straight

Circuit diagram



Contact assignment of the M12 plug