



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 Web: www.chipsmall.com

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



## Sensor/Actuator cable - SAC-3P-M12Y/2X0,6-PUR/M 8FR-2L - 1671425

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, 3-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M12, A-coded, on Socket angled M8, with 2 LEDs and Socket angled M8, A-coded, with 2 LEDs, Cable length: 0.6 m



### Key commercial data

Packing unit	1 1
Weight per Piece (excluding packing)	47.9 GRM
Custom tariff number	85444290
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	0.6 m
-----------------	-------

#### 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	24 V
Number of positions	3
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
	M8 connector IEC 61076-2-104

## Sensor/Actuator cable - SAC-3P-M12Y/2X0,6-PUR/M 8FR-2L - 1671425

### Technical data

#### General

Status display	2 LEDs
Surge voltage category	II
Pollution degree	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)
	0.2 Nm (M8 connectors)

#### Material

Inflammability class according to UL 94	HB
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-HF
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	≥ 0.38 mm (Core insulation)
	approx. 0.9 mm (Outer cable sheath)
Wire colors	brown, blue, black
Overall twist	3 wires, twisted
Length of twist, overall twist	40 mm
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

## Sensor/Actuator cable - SAC-3P-M12Y/2X0,6-PUR/M 8FR-2L - 1671425

### Technical data

#### Cable

Acceleration	10 m/s <sup>2</sup>
Cable weight	24 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Conductor resistance	≤ 78 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	hydrolysis and microbe resistant
	Highly resistant to acids, alkaline solutions and solvents
	Resistant to salt water
	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
eCl@ss 8.0	27061801

#### ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC001855
ETIM 4.0	EC001855



# Sensor/Actuator cable - SAC-3P-M12Y/2X0,6-PUR/M 8FR-2L - 1671425

## Classifications

### ETIM

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

UL Listed / cUL Listed / GOST / cULus Listed

---

#### Ex Approvals

---

#### Approvals submitted

---

## Approval details

UL Listed	
Nominal current IN	4 A
Nominal voltage UN	24 V

cUL Listed	
Nominal current IN	4 A
Nominal voltage UN	24 V

## Sensor/Actuator cable - SAC-3P-M12Y/2X0,6-PUR/M 8FR-2L - 1671425

### Approvals



### Accessories

#### Accessories

#### Conductor 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

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

#### Marker carrier cable

## Sensor/Actuator cable - SAC-3P-M12Y/2X0,6-PUR/M 8FR-2L - 1671425

### Accessories

Conductor marker carrier - PATO 2/15 - 1013122



Conductor marker carrier, transparent, Unlabeled, Mounting type: Clip on, Cable diameter: 2.8-4.4 mm, Lettering field: 4 x 15 mm

---

Conductor marker carrier - PATO 3/15 - 1013135



Conductor marker carrier, transparent, Unlabeled, Mounting type: Clip on, Cable diameter: 4.4-6.7 mm, Lettering field: 4 x 15 mm

---

Conductor marker carrier - PATO 4/15 - 1013148



Conductor marker carrier, transparent, Unlabeled, Mounting type: Clip on, Cable diameter: 6.7-10 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

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

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



## Sensor/Actuator cable - SAC-3P-M12Y/2X0,6-PUR/M 8FR-2L - 1671425

### Accessories

---

Screw plug - PROT-M 8 MS-PA-CHAIN - 1430860

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



### Safety locking

---

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



### Screwdriver tools

---

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

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-3P-M12Y/2X0,6-PUR/M 8FR-2L - 1671425

### 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

---

### Torque tool

Torque screwdriver - TSD 02 SAC - 1208487



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

---

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



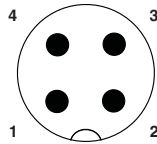
Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

---

### Drawings

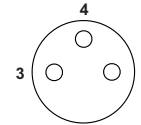
# Sensor/Actuator cable - SAC-3P-M12Y/2X0,6-PUR/M 8FR-2L - 1671425

Schematic diagram



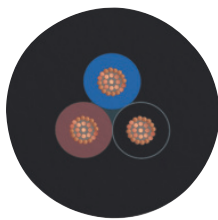
Pin assignment M12 Y plug, 4-pos., A-coded, view plug side

Schematic diagram



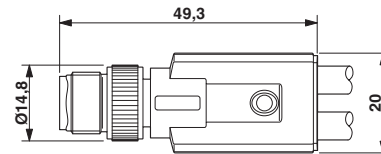
Pin assignment M8 socket, 3-pos., view female side

Cable cross section



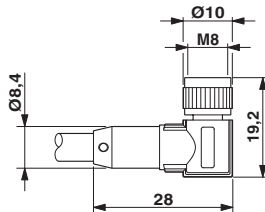
PUR halogen-free black [PUR]

Dimensioned drawing



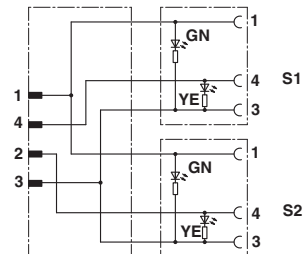
Plug M12 x 1, Y distributor

Dimensioned drawing



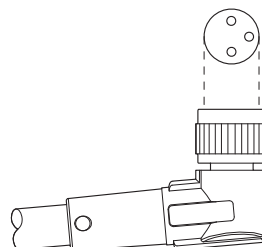
Socket M8 x 1, angled

Circuit diagram



Contact assignment of M12 plugs / M8 sockets

Schematic diagram



Layout of connector pin assignments

