



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!



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**SAC-3P-M12MS/1,5-PUR/M 8FR-2L**

Order No.: 1694907

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1694907>

Sensor/Actuator cable, 3-position, PUR, halogen-free, Black-gray  
RAL 7021, Plug, straight M12, A-coded, on Socket, angled M8, with 2  
LEDs, Cable length: 1.5 m

**Commercial data**

|                          |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|
| GTIN (EAN)               |  |
| sales group              | D130                                                                                |
| Pack                     | 1 pcs.                                                                              |
| Customs tariff           | 85444290                                                                            |
| Catalog page information | Page 76 (PC-2009)                                                                   |

**Product notes**

WEEE/RoHS-compliant since:  
11/22/2006



[http://  
www.download.phoenixcontact.com](http://www.download.phoenixcontact.com)  
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**Technical data****General data**

|                       |        |
|-----------------------|--------|
| Rated current at 40°C | 4 A    |
| Rated voltage         | 24 V   |
| Number of positions   | 3      |
| Volume resistance     | ≤ 5 mΩ |

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| Insulation resistance           | $\geq 100 \text{ M}\Omega$                           |
| Length of cable                 | 1.5 m                                                |
| 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 | $\geq 100$                                  |
| 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                                         |
| Status display              | 2 LEDs                                      |

#### Conductor data

|                                    |                                            |
|------------------------------------|--------------------------------------------|
| Cable type                         | PUR halogen-free black                     |
| Cable type (abbreviation)          | PUR                                        |
| Cable abbreviation                 | Li9Y11Y-HF                                 |
| Conductor cross section            | $0.25 \text{ mm}^2$                        |
| AWG signal line                    | 24                                         |
| Conductor structure signal line    | 32 x 0.10 mm                               |
| Core diameter including insulation | 1.15 mm $\pm 0.05 \text{ mm}$              |
| Thickness, insulation              | $\geq 0.38 \text{ mm}$ (Core insulation)   |
| External cable diameter            | 4.40 mm                                    |
| Wire colors                        | Brown, blue, black                         |
| External sheath, color             | Black-gray RAL 7021                        |
| Insulation resistance              | $\geq 100 \text{ G}\Omega \cdot \text{km}$ |
| Conductor resistance               | $\leq 77.6 \text{ }\Omega/\text{km}$       |
| Nominal voltage, conductor         | 300 V                                      |
| Test voltage, conductor            | 4000 V                                     |
| Overall twist                      | 3 wires, twisted                           |

|                                               |                                                                                                                        |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Outer sheath, material                        | PUR                                                                                                                    |
| Material conductor insulation                 | PP                                                                                                                     |
| Conductor material                            | Bare Cu litz wires                                                                                                     |
| Cable weight                                  | 23 kg/km                                                                                                               |
| 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                                                                                                                  |
| Acceleration                                  | 10 m/s <sup>2</sup>                                                                                                    |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)<br>-5 °C ... 80 °C (cable, flexible installation)                         |
| Special properties                            | Flexible cable conduit capable<br>Silicone-free<br>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<br>hydrolysis and microbe resistant                         |

#### Certificates / Approvals

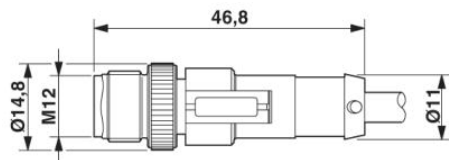


Certification

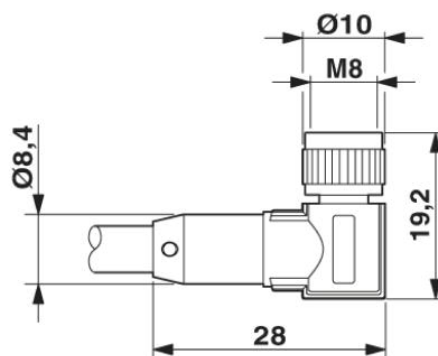
CUL Listed, GOST, UL Listed

## Diagrams/Drawings

### Dimensioned drawing

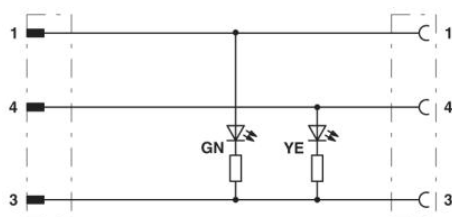


M12 x 1 male connector, straight



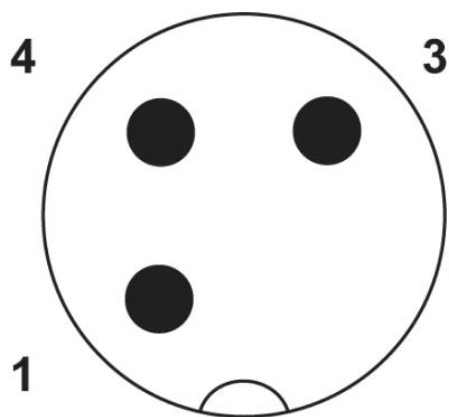
Socket M8 x 1, angled, with LED

### Circuit diagram

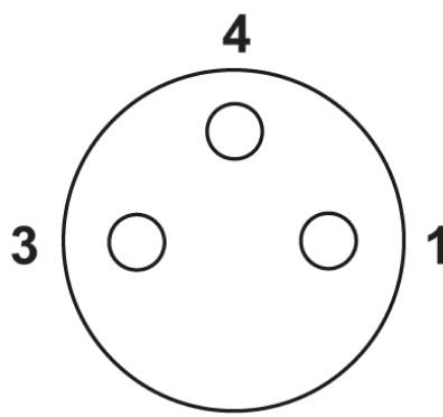


Contact assignment of M12 plugs / M8 sockets

### Schematic diagram



Pin assignment M12 plug, 3-pos., A-coded, view male side



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

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