

# SAC-5P-M12MR/ 5,0-PUR SH

Order No.: 1682773



Sensor/Actuator cable, 5-position, PUR, halogen-free, Black-gray RAL 7021, shielded, Plug, angled M12, A-coded, on Free conductor end, Cable length: 5 m

## Commercial data

|                          |                                                                                                       |
|--------------------------|-------------------------------------------------------------------------------------------------------|
| EAN                      | <br>4 017918 169084 |
| Note                     | Made-to-order                                                                                         |
| Pack                     | 1                                                                                                     |
| Customs tariff           | 85444290                                                                                              |
| Catalog page information | Page 89 (PC-2009)                                                                                     |

## Product notes

WEEE/RoHS-compliant since:  
2007-09-17



## Technical data

### General data

|                       |                            |
|-----------------------|----------------------------|
| Rated current at 40°C | 4 A                        |
| Rated voltage         | 60 V                       |
| Number of positions   | 5                          |
| Volume resistance     | $\leq 5 \text{ m}\Omega$   |
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Length of cable       | 5 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/IP67/IP69K                             |
| Insertion/withdrawal cycles | ≥ 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)              |
| Status display              | No                                          |

**Conductor data**

|                                    |                                     |
|------------------------------------|-------------------------------------|
| Cable type                         | PUR halogen-free black shielded     |
| Cable type (abbreviation)          | PUR                                 |
| Cable abbreviation                 | Li9Y-V1-C-V1-11Y                    |
| Conductor cross section            | 0.34 mm <sup>2</sup>                |
| AWG signal line                    | 22                                  |
| Conductor structure signal line    | 42x 0.10 mm                         |
| Core diameter including insulation | 1.27 mm ±0.02 mm                    |
| Thickness, insulation              | Approx. 0.21 mm (Core insulation)   |
|                                    | Approx. 0.8 mm (Outer cable sheath) |
| External cable diameter            | 5.90 mm                             |
| Wire colors                        | Brown, white, blue, black, gray     |
| External sheath, color             | Black-gray RAL 7021                 |
| Insulation resistance              | ≥ 100 GΩ*km                         |
| Conductor resistance               | max. 58 Ω/km                        |
| Nominal voltage, conductor         | 300 V                               |
| Test voltage, conductor            | 3000 V                              |
| Overall twist                      | 5 wires around filler to the core   |
| Shielding                          | Braided copper wires                |

|                                               |                                                                     |
|-----------------------------------------------|---------------------------------------------------------------------|
| Optical shield covering                       | 85 %                                                                |
| Outer sheath, material                        | PUR                                                                 |
| Material, filler                              | PE                                                                  |
| Material conductor insulation                 | PP                                                                  |
| Conductor material                            | Bare Cu litz wires                                                  |
| Cable weight                                  | 48 kg/km                                                            |
| Smallest bending radius, fixed installation   | 59 mm                                                               |
| Smallest bending radius, movable installation | 59 mm                                                               |
| Number of bending cycles                      | 4000000                                                             |
| Bending radius                                | 59 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)                        |
|                                               | -25 °C ... 80 °C (cable, flexible installation)                     |
| 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                              | Highly resistant to acids, alkaline solutions and solvents          |
|                                               | hydrolysis and microbe resistant                                    |

## Certificates

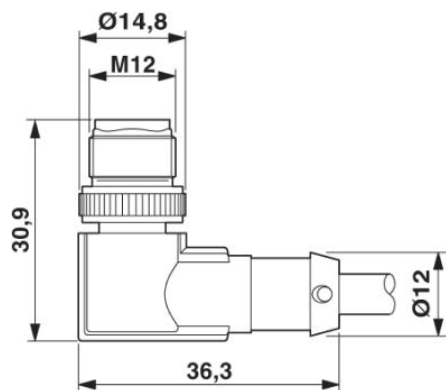


Certification

CUL Listed, GOST, UL Listed

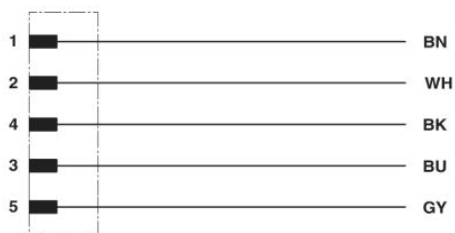
## Drawings

### Dimensioned drawing



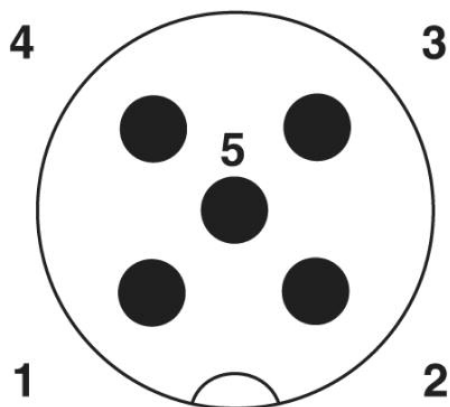
M12 x 1 male connector, angled, shielded

### Circuit diagram



Contact assignment of the M12 plug

### Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side