

# SAC-4P-M12MS/ 5,0-28X SH OD

Order No.: 1454134



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Sensor/Actuator cable, 4-position, PE-X halogen-free, Black-gray RAL 7021, shielded, Plug, straightLink:M12, A - standard, on Free conductor end, Cable length: 5 m

## Commercial data

|                          |                    |
|--------------------------|--------------------|
| GTIN (EAN)               | 4 046356 568746    |
| Note                     | Made-to-order      |
| sales group              | D117               |
| Pack                     | 1 pcs.             |
| Customs tariff           | 85444290           |
| Catalog page information | Page 220 (PC-2011) |

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## Technical data

### General data

|                       |                            |
|-----------------------|----------------------------|
| Rated current at 40°C | 4 A                        |
| Rated voltage         | 250 V                      |
| Number of positions   | 4                          |
| Volume resistance     | $\leq 5 \text{ m}\Omega$   |
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Length of cable       | 5 m                        |

|                                 |                                                                                   |
|---------------------------------|-----------------------------------------------------------------------------------|
| Ambient temperature (operation) | -40 °C ... 105 °C                                                                 |
|                                 | -40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4)) |

#### General characteristics

|                             |                               |
|-----------------------------|-------------------------------|
| Standards/regulations       | M12 connector IEC 61076-2-101 |
| Coding                      | A - standard                  |
| 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    | PP                            |
| Material of grip body       | PP                            |
| Material, knurls            | High-grade steel              |
| Sealing material            | FPM                           |
| Status display              | No                            |

#### Conductor data

|                                    |                                     |
|------------------------------------|-------------------------------------|
| Cable type                         | PE-X black                          |
| Cable type (abbreviation)          | 28X                                 |
| Cable abbreviation                 | Li2X2X-C-VI-2X                      |
| Conductor cross section            | 0.5 mm <sup>2</sup>                 |
| AWG signal line                    | 20                                  |
| Conductor structure signal line    | 28x 0.15 mm                         |
| Core diameter including insulation | 1.6 mm ±0.05 mm                     |
| Thickness, insulation              | ~ 0.3 mm (Core insulation)          |
|                                    | Approx. 0.7 mm (Outer cable sheath) |
|                                    | ~ 0.45 mm (Inner sheath)            |
| External cable diameter            | 6.8 mm ±0.2 mm                      |
| Wire colors                        | Brown, white, blue, black           |
| External sheath, color             | Black-gray RAL 7021                 |
| Insulation resistance              | ≥ 100 MΩ*km (at 20°C)               |
| Conductor resistance               | max. 39 Ω/m (at 20°C)               |
| Nominal voltage, conductor         | ≤ 300 V                             |
| Test voltage, conductor            | ≥ 3000 V                            |

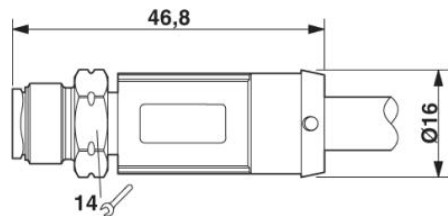
|                                               |                                                                                                   |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------|
| Overall twist                                 | 4 wires, twisted                                                                                  |
| Length of twist, overall twist                | 108.8 mm                                                                                          |
| Shielding                                     | Braided copper wires                                                                              |
| Optical shield covering                       | 85 %                                                                                              |
| Outer sheath, material                        | PE-X                                                                                              |
| Material, inner sheath                        | PE-X                                                                                              |
| Material conductor insulation                 | PE-X                                                                                              |
| Conductor material                            | Bare Cu litz wires                                                                                |
| Cable weight                                  | 74 kg/km                                                                                          |
| Smallest bending radius, fixed installation   | 34 mm                                                                                             |
| Smallest bending radius, movable installation | 68 mm                                                                                             |
| Number of bending cycles                      | 1000000                                                                                           |
| Bending radius                                | 68 mm                                                                                             |
| Traversing path                               | 10 m                                                                                              |
| Traversing rate                               | 3 m/s                                                                                             |
| Acceleration                                  | 10 m/s <sup>2</sup>                                                                               |
| Ambient temperature (operation)               | -30 °C ... 105 °C (cable, fixed installation)<br>-15 °C ... 105 °C (cable, flexible installation) |
| Flame resistance                              | According to DIN 60332-1-2<br>According to DIN EN 50266-2-5                                       |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815                                                          |
| Resistance to oil                             | in accordance with DIN EN 60811-2-1                                                               |
| Other resistance                              | UV resistant According to DIN VDE 0276-605                                                        |

#### Accessories

| Item           | Designation                  | Description                                                                                                                                       |
|----------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General</b> |                              |                                                                                                                                                   |
| 1440041        | SACC-M12FS-5CON-DM 5-8 SH VA | Sensor/actuator connector, socket, straight, 5-pos., M12 shielded, screw connection, high-grade steel knurl, cable screw connection 5 mm - 8.6 mm |
| <b>Tools</b>   |                              |                                                                                                                                                   |
| 1212513        | SAC BIT M12-W14              | SAC nut, for assembling M12 connectors with hexagonal high-grade steel knurl, with 4 mm hexagonal drive                                           |
| 1208429        | TSD 04 SAC                   | Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors                                                      |

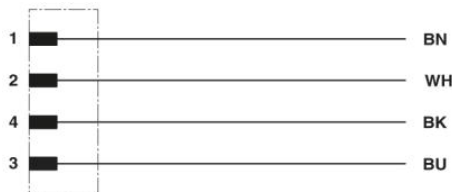
Diagrams/Drawings

Dimensioned drawing



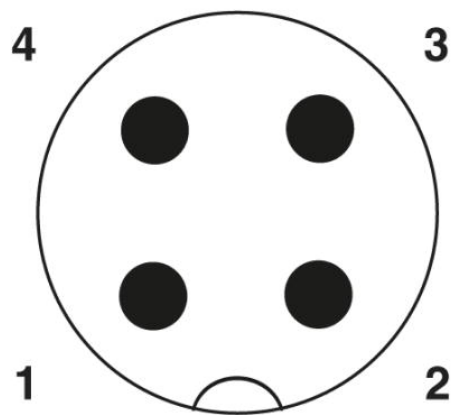
M12 x 1 male connector, straight

Circuit diagram



Contact assignment of the M12 plug

Schematic diagram



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

**Address**

PHOENIX CONTACT Inc., USA  
586 Fulling Mill Road  
Middletown, PA 17057, USA  
Phone (800) 888-7388  
Fax (717) 944-1625  
<http://www.phoenixcon.com>



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