

# Sensor/actuator cable - SAC-8P-M12MS/20,0-PUR SH - 1570157

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, shielded, Plug straight M12, A-coded, on free cable end, cable length: 20 m

RoHS

## Key Commercial Data

|                        |               |
|------------------------|---------------|
| Packing unit           | 1 pc          |
| Minimum order quantity | 50 pc         |
| GTIN                   |               |
| GTIN                   | 4046356338509 |

## Technical data

### Dimensions

|  |       |
|--|-------|
| Length of cable                            | 20 m  |
| Stripping length of the free conductor end | 50 mm |

### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
| Degree of protection            | IP65                             |
|                                 | IP67                             |

### General

|                       |              |
|-----------------------|--------------|
| Rated current at 40°C | 2 A          |
| Rated voltage         | 30 V AC      |
|                       | 30 V DC      |
| Number of positions   | 8            |
| Insulation resistance | ≥ 100 MΩ     |
| Coding                | A - standard |
| Status display        | No           |
| Overvoltage category  | II           |
| Degree of pollution   | 3            |

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## Technical data

### General

|                             |       |
|-----------------------------|-------|
| Insertion/withdrawal cycles | ≥ 100 |
|-----------------------------|-------|

### Material

|  |   |
|--|---|
| Flammability rating according to UL 94 | HB  |
| Contact material                       | CuZn  |
| 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                |

### Standards and Regulations

|  |    |
|--|----|
| Flammability rating according to UL 94 | HB |
|--|----|

### Cable

|   |  |
|---|--|
| Cable type                                      | PUR halogen-free black                             |
| Cable type (abbreviation)                       | PUR  |
| Cable abbreviation                              | LiF9YC11Y  |
| UL AWM style                                    | 20549 / 10493 (80°C/300 V)                         |
| Conductor cross section                         | 8x 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                                   |
| Thickness, insulation                           | approx. 0.2 mm                                     |
| Wire colors                                     | Brown, white, green, yellow, gray, pink, blue, red |
| Overall twist                                   | 8 wires around filler to the core                  |
| Shielding                                       | Tinned copper braided shield                       |
| Optical shield covering                         | 85 %   |
| External sheath, color                          | black-gray RAL 7021                                |
| Outer sheath thickness                          | approx. 0.5 mm                                     |
| External cable diameter D                       | 5.9 mm ±0.2 mm                                     |
| Minimum bending radius, fixed installation      | 5 x D  |
| Minimum bending radius, flexible installation   | 10 x D   |
| Number of bending cycles                        | 2000000  |
| Minimum bending radius, drag chain applications | 10 x D   |
| Traversing path                                 | 10 m   |
| Traversing rate                                 | 3 m/s  |
| Acceleration                                    | 10 m/s <sup>2</sup>                                |
| Cable weight                                    | 53 kg/km   |
| Outer sheath, material                          | PUR  |
| Material conductor insulation                   | PP   |
| Conductor material                              | Bare Cu litz wires                                 |
| Insulation resistance                           | ≥ 1 GΩ*km (at 20 °C)                               |

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## Technical data

### Cable

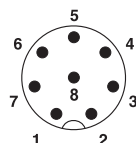
|                                 |  |
|---------------------------------|--|
| Conductor resistance            | ≤ 78 Ω/km (at 20 °C)                                       |
| Nominal voltage, cable          | ≤ 300 V AC   |
| Test voltage, cable             | ≥ 3000 V AC (Spark test)                                   |
| Test voltage Core/Shield        | ≥ 2000 V AC (for 60 s)                                     |
| Special properties              | Flexible cable conduit capable                             |
| Flame resistance                | in acc. with UL FT-2                                       |
|                                 | according to UL 758/1581 (horizontal)                      |
|                                 | in accordance with UL 758/1581 FT2                         |
|                                 | According to DIN EN 60332-2-2 (20 s)                       |
| Halogen-free                    | in accordance with DIN VDE 0472 part 815                   |
|                                 | in accordance with DIN EN 50267-2-1                        |
| Other resistance                | hydrolysis and microbe resistant                           |
|                                 | Resistant to salt water                                    |
|                                 | Low adhesion   |
|                                 | Low adhesion   |
|                                 | 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)            |

### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Drawings

Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

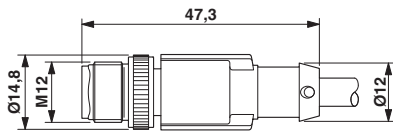
Cable cross section



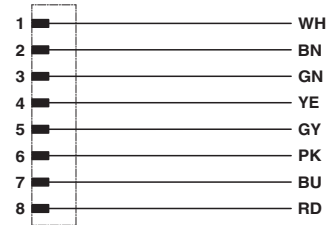
PUR halogen-free black [PUR]

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Dimensional drawing



Circuit diagram



Plug, M12 x 1, straight, shielded

Contact assignment of the M12 plug

## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

### Approval details

|                    |  |   |               |
|--------------------|--|---|---------------|
| UL Listed          |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
| Nominal voltage UN |  | 30 V  |               |
| Nominal current IN |  | 2 A   |               |

|                    |  |   |               |
|--------------------|--|---|---------------|
| cUL Listed         |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
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|              |  |
|--------------|--|
| cULus Listed |  |
|--------------|--|

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