

# 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, coding: A, on free cable end, cable length: 20 m

RoHS

## Key Commercial Data

|                        |               |
|------------------------|---------------|
| Packing unit           | 1 pc          |
| Minimum order quantity | 5 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)            |

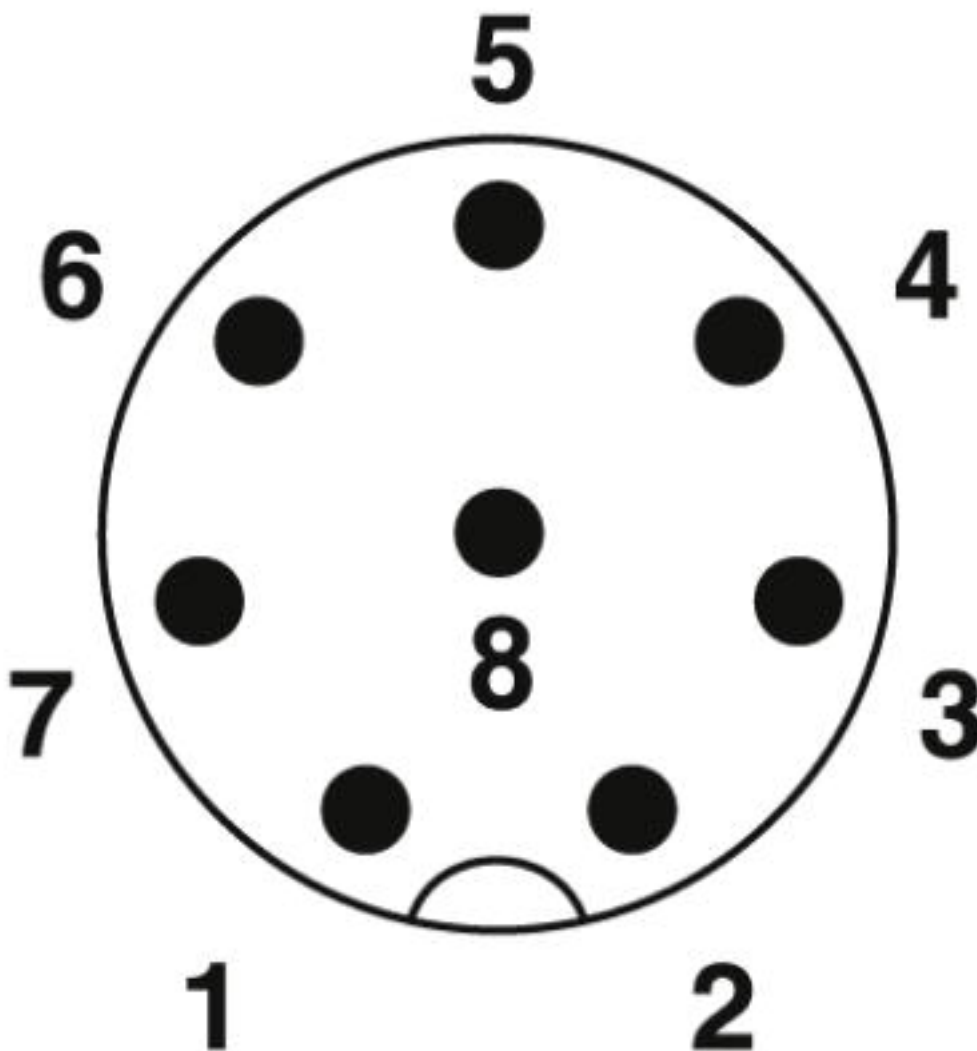
#### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                          |
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

#### Drawings

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

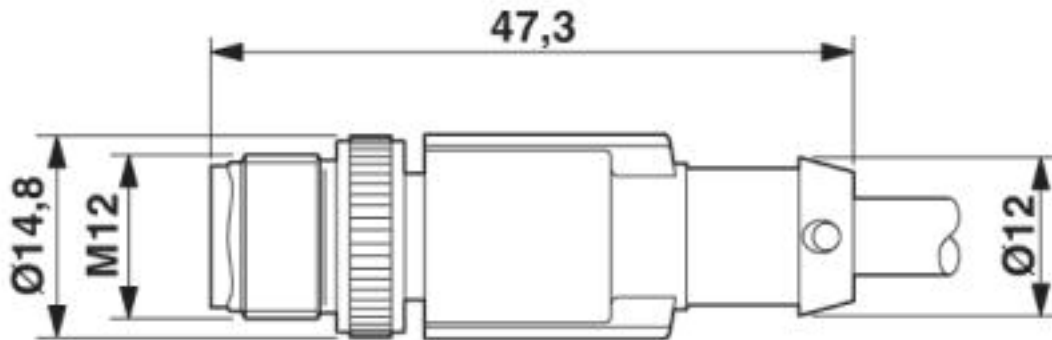
Schematic diagram



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

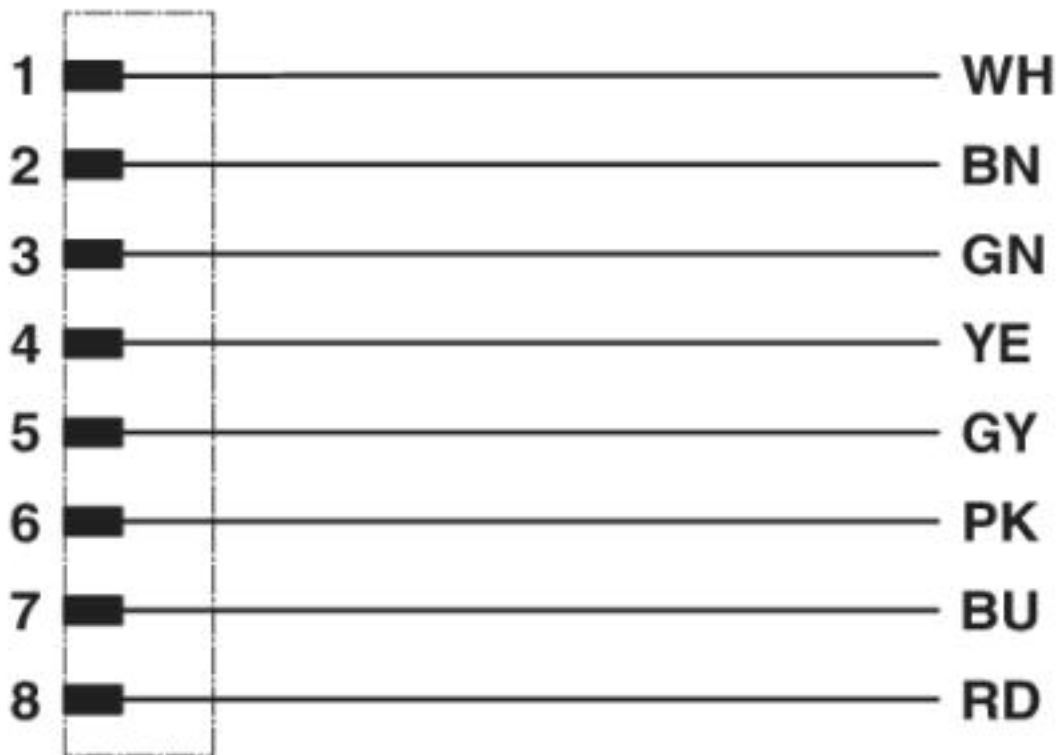
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Dimensional drawing



Plug, M12 x 1, straight, shielded

Circuit diagram



Contact assignment of the M12 plug

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

Cable cross section



PUR halogen-free black [PUR]

## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27060311 |
| eCl@ss 4.0    | 27060300 |
| eCl@ss 4.1    | 27060300 |
| eCl@ss 5.0    | 27061800 |
| eCl@ss 5.1    | 27061800 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27279218 |
| eCl@ss 8.0    | 27279218 |
| eCl@ss 9.0    | 27060311 |

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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |
| UNSPSC 19.0   | 31251501 |
| UNSPSC 20.0   | 31251501 |
| UNSPSC 21.0   | 31251501 |

## 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 |
| Nominal voltage UN | 30 V                                                                                |                                                                                                                                                       |               |
| Nominal current IN | 2 A                                                                                 |                                                                                                                                                       |               |

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### Approvals

cULus Listed



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