

# SAC-4P-MS/ 0,3-511/M12FR-3L FB - Sensor/actuator cable



1552706

<https://www.phoenixcontact.com/us/products/1552706>

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Sensor/actuator cable, 4-position, Special mixture on PVC base, black RAL 9005, Plug straight M12, coding: A, with 3 LEDs, on Socket angled M12, coding: A, with 3 LEDs, cable length: 0.3 m, for the food industry, with high-grade steel knurl

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1552706                        |
| Packing unit                         | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF03                           |
| Product key                          | AF1CCA                         |
| GTIN                                 | 4046356156042                  |
| Weight per piece (including packing) | 32 g                           |
| Weight per piece (excluding packing) | 32 g                           |
| Customs tariff number                | 85444290                       |
| Country of origin                    | PL                             |

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## Technical data

### Product properties

|                      |                          |
|----------------------|--------------------------|
| Product type         | Sensor/actuator cable    |
| Application          | Food processing industry |
| Number of positions  | 4                        |
| No. of cable outlets | 1                        |
| Shielded             | no                       |
| Coding               | A                        |

### Insulation characteristics

|                      |    |
|----------------------|----|
| Overvoltage category | II |
| Degree of pollution  | 3  |

### Material specifications

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Flammability rating according to UL 94 | HB                                          |
| Seal material                          | NBR                                         |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Contact material                       | CuSn                                        |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | TPU GF                                      |
| Material for screw connection          | Stainless steel                             |

### Electrical properties

|                       |                            |
|-----------------------|----------------------------|
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 48 V AC                    |
|                       | 60 V DC                    |
| Nominal current $I_N$ | 4 A                        |

### Mechanical properties

#### Mechanical data

|                             |            |
|-----------------------------|------------|
| Insertion/withdrawal cycles | $\geq 100$ |
|-----------------------------|------------|

### Signaling

|                        |        |
|------------------------|--------|
| Status display         | 3 LEDs |
| Status display present | yes    |

### Connection data

#### Conductor connection

|                   |                        |
|-------------------|------------------------|
| Tightening torque | 0.4 Nm (M12 connector) |
|-------------------|------------------------|

### Connector

#### Connection 1

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|                     |                   |
|---------------------|-------------------|
| Type                | Plug straight M12 |
| Number of positions | 4                 |
| Coding type         | A                 |

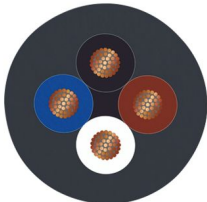
## Connection 2

|                     |                   |
|---------------------|-------------------|
| Type                | Socket angled M12 |
| Number of positions | 4                 |
| Coding type         | A                 |

## Cable/line

|              |       |
|--------------|-------|
| Cable length | 0.3 m |
|--------------|-------|

## PVC black FDA [511]

|                                 |                                                                                                |
|---------------------------------|------------------------------------------------------------------------------------------------|
| Dimensional drawing             |             |
| Number of positions             | 4                                                                                              |
| Shielded                        | no                                                                                             |
| Cable type                      | PVC black FDA [511]                                                                            |
| Conductor structure signal line | 42x 0.10 mm                                                                                    |
| AWG signal line                 | 22                                                                                             |
| Conductor cross section         | 0.34 mm <sup>2</sup>                                                                           |
| Wire diameter incl. insulation  | 1.52 mm ±0.05 mm                                                                               |
| External cable diameter         | 5.20 mm ±0.2 mm                                                                                |
| Outer sheath, material          | Special mixture on PVC base                                                                    |
| External sheath, color          | black RAL 9005                                                                                 |
| Conductor material              | Bare Cu litz wires                                                                             |
| Material wire insulation        | PVC                                                                                            |
| Single wire, color              | brown, white, blue, black                                                                      |
| Overall twist                   | 4 wires, twisted                                                                               |
| Nominal voltage, cable          | 300 V                                                                                          |
| Test voltage                    | 1500 V                                                                                         |
| Resistance to oil               | good oil-resistance                                                                            |
| Other resistance                | UV resistant<br>Silicone-free                                                                  |
| Special properties              | FDA compliant                                                                                  |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)<br>-5 °C ... 90 °C (Cable, flexible installation) |

## Environmental and real-life conditions

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## Ambient conditions

|                                                                   |                                   |
|-------------------------------------------------------------------|-----------------------------------|
| Degree of protection                                              | IP65                              |
|                                                                   | IP67                              |
|                                                                   | IP68                              |
|                                                                   | IP69K                             |
| Ambient temperature (operation) (male connector/female connector) | -40 °C ... 105 °C (Plug / socket) |

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M12 connector   |
| Standards/specifications | IEC 61076-2-101 |

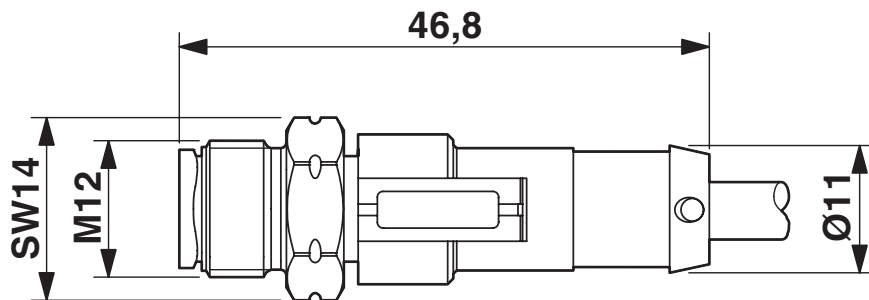
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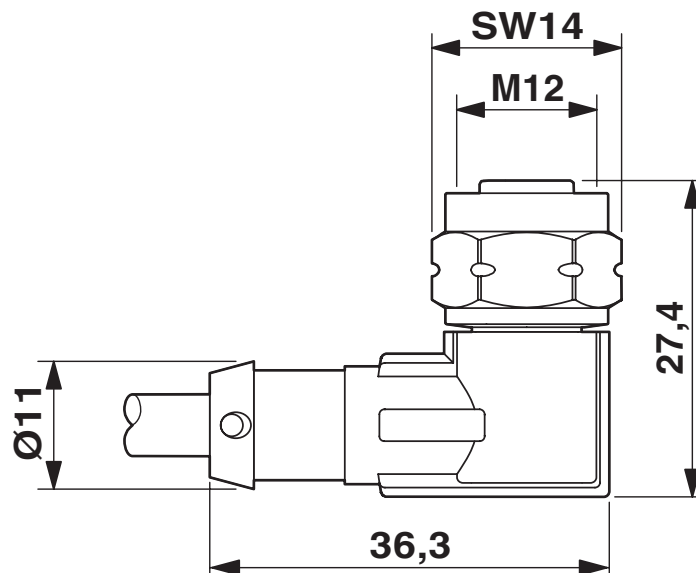
## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



Socket M12 x 1, angled, with LED

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Schematic diagram



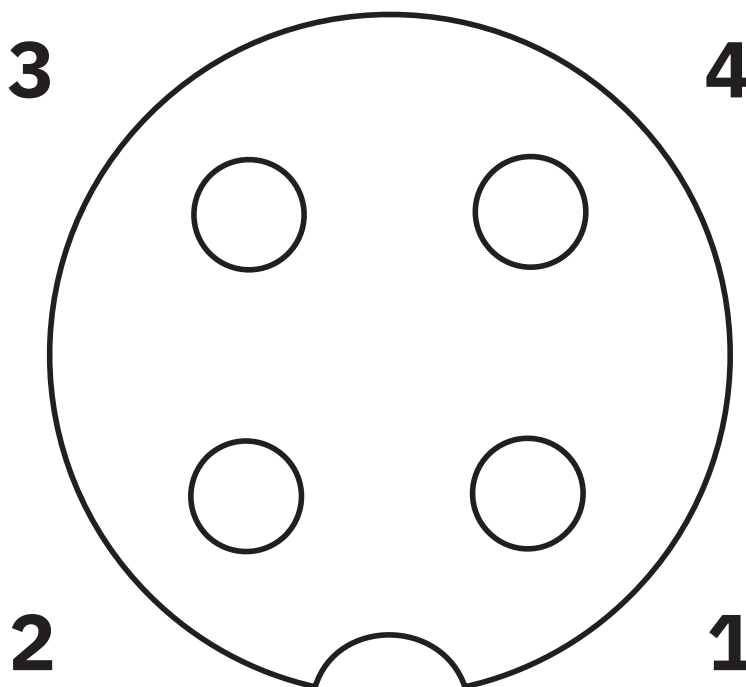
Pin assignment M12 plug, 4-pos., A-coded, view plug side

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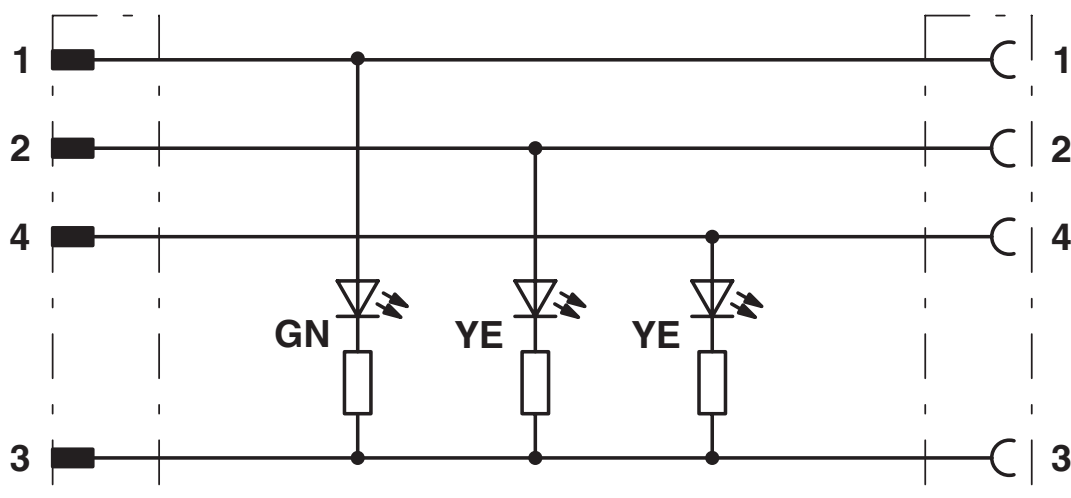
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Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27060311 |
| ECLASS-15.0 | 27060311 |

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## Environmental product compliance

### China RoHS

|                                        |                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-50                                                                                                                                                                                                                           |
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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