

# SAC-4P-M 8MS/ 3,0-PUR/M 8FSSH - Sensor/actuator cable



1574603

<https://www.phoenixcontact.com/pc/products/1574603>

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Sensor/actuator cable, 4-position halogen-free, shielded, Plug straight M8, coding: A, on Socket straight M8, cable length: 3 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1574603             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Product key                          | BF1BJA              |
| Catalog page                         | Page 199 (C-2-2019) |
| GTIN                                 | 4046356427845       |
| Weight per piece (including packing) | 114.1 g             |
| Weight per piece (excluding packing) | 105.54 g            |
| Customs tariff number                | 85444290            |
| Country of origin                    | PL                  |

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## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Number of positions  | 4                     |
| Application          | Standard              |
| No. of cable outlets | 1                     |
| Shielded             | yes                   |
| 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          | Zinc die-cast, nickel-plated                |

### Electrical properties

|                       |                            |
|-----------------------|----------------------------|
| Contact resistance    | $\leq 5 \text{ m}\Omega$   |
| Insulation resistance | $\geq 100 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 48 V AC                    |
|                       | 60 V DC                    |
| Nominal current $I_N$ | 4 A                        |
| Protective circuit    | unwired                    |

### Mechanical properties

#### Mechanical data

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

### Signaling

|                        |    |
|------------------------|----|
| Status display         | No |
| Status display present | No |

### Connection data

#### Conductor connection

|                   |                        |
|-------------------|------------------------|
| Tightening torque | 0.2 Nm (M8 connectors) |
|-------------------|------------------------|

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## Connector

### Connection 1

|                     |                  |
|---------------------|------------------|
| Type                | Plug straight M8 |
| Number of positions | 4                |
| Coding type         | A                |

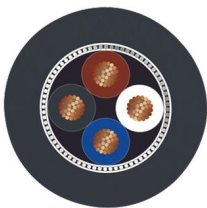
### Connection 2

|                     |                    |
|---------------------|--------------------|
| Type                | Socket straight M8 |
| Number of positions | 4                  |

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 3 m |
|--------------|-----|

### PUR halogen-free black [PUR]

|                                 |                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------|
| Dimensional drawing             |  |
| Cable weight                    | 31 kg/km                                                                            |
| UL AWM Style                    | 20549                                                                               |
| Number of positions             | 4                                                                                   |
| Shielded                        | yes                                                                                 |
| Cable type                      | PUR halogen-free black [PUR]                                                        |
| Conductor structure signal line | 32x 0.10 mm                                                                         |
| AWG signal line                 | 24                                                                                  |
| Conductor cross section         | 4x 0.25 mm <sup>2</sup> (Signal line)                                               |
| Wire diameter incl. insulation  | 1.17 mm ±0.02 mm (Signal line)                                                      |
| External cable diameter         | 4.7 mm ±0.15 mm                                                                     |
| Outer sheath, material          | PUR                                                                                 |
| External sheath, color          | black-gray RAL 7021                                                                 |
| Conductor material              | Bare Cu litz wires                                                                  |
| Material wire insulation        | PP                                                                                  |
| Single wire, color              | brown, white, blue, black                                                           |
| Thickness, insulation           | ≥ 0.21 mm (Core insulation)<br>approx. 0.5 mm (Outer cable sheath)                  |
| Overall twist                   | 4 wires, twisted                                                                    |
| Optical shield covering         | 80 %                                                                                |
| Max. conductor resistance       | max. 78 Ω/km (at 20 °C)                                                             |
| Insulation resistance           | ≥ 100 GΩ*km (at 20 °C)                                                              |

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|                                               |                                                                                                                                                                |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal voltage, cable                        | ≤ 300 V                                                                                                                                                        |
| Test voltage                                  | ≥ 3000 V                                                                                                                                                       |
| Smallest bending radius, fixed installation   | 24 mm                                                                                                                                                          |
| Smallest bending radius, movable installation | 48 mm                                                                                                                                                          |
| Max. bending cycles                           | 10000000                                                                                                                                                       |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815                                                                                                                       |
| Flame resistance                              | in accordance with UL 758/1581 FT2<br>DIN EN 60332-2-2 (20 s)                                                                                                  |
| Resistance to oil                             | in accordance with DIN EN 60811-2-1                                                                                                                            |
| Other resistance                              | Highly resistant to acids, alkaline solutions and solvents<br>hydrolysis and microbe resistant<br>partly UV-resistant (in accordance with DIN EN ISO 4892-2-A) |
| Special properties                            | Flexible cable conduit capable<br>Silicone-free<br>Free of substances which would hinder coating with paint or varnish                                         |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)<br>-25 °C ... 80 °C (Cable, flexible installation)                                                                |

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

|                          |                 |
|--------------------------|-----------------|
| Standard designation     | M8 connector    |
| Standards/specifications | IEC 61076-2-104 |

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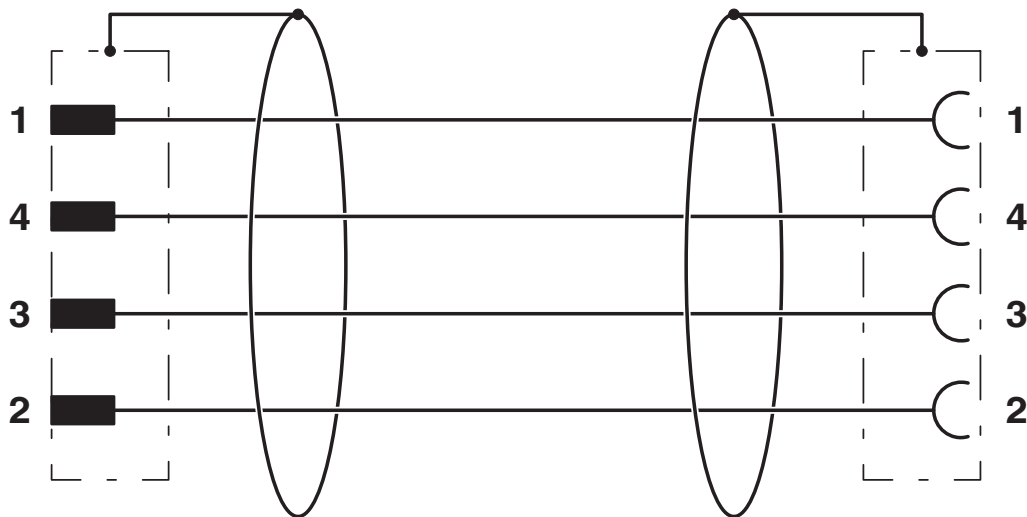


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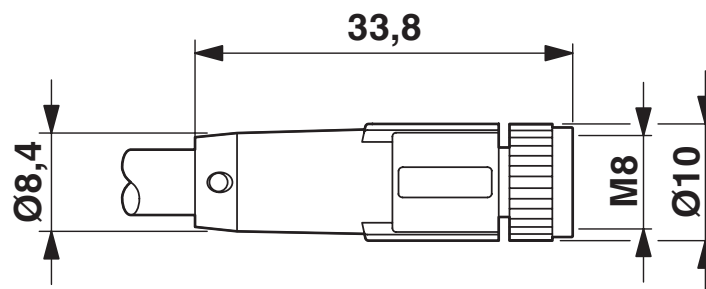
<https://www.phoenixcontact.com/pc/products/1574603>

## Drawings

Circuit diagram



Dimensional drawing



Socket M8 x 1, straight, shielded

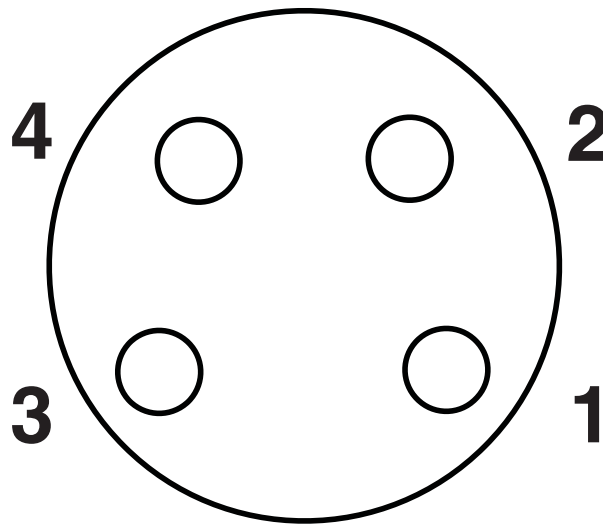
# SAC-4P-M 8MS/ 3,0-PUR/M 8FSSH - Sensor/actuator cable



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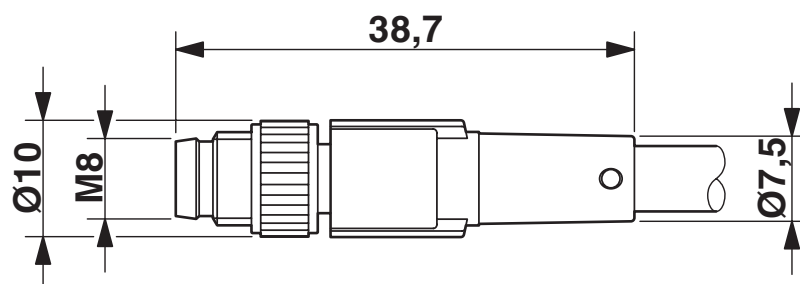
<https://www.phoenixcontact.com/pc/products/1574603>

Schematic diagram



Pin assignment M8 socket, 4-pos., view female side

Dimensional drawing



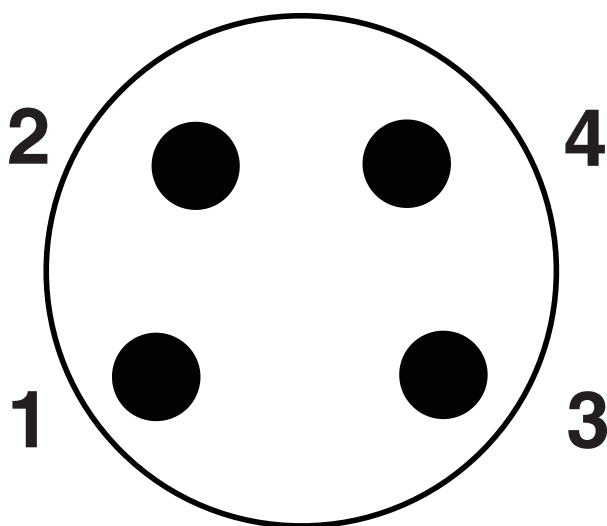
M8 x 1 male plug, straight version

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Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1574603>

|                                                                                                                                              |                       |                       |                   |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <div> <b>UL Listed</b><br/>Approval ID: FILE E 221474</div> |                       |                       |                   |                             |
|                                                                                                                                              | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                              | 30 V                  | 4 A                   | -                 | -                           |

|                                                                                                                                               |                       |                       |                   |                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <div> <b>cUL Listed</b><br/>Approval ID: FILE E 221474</div> |                       |                       |                   |                             |
|                                                                                                                                               | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                               | 30 V                  | 4 A                   | -                 | -                           |

|                                                                                                                                                     |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| <div> <b>EAC-RoHS</b><br/>Approval ID: RU D-DE.HB35.B.00387</div> |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|

|                     |  |  |  |  |
|---------------------|--|--|--|--|
| <b>cULus Listed</b> |  |  |  |  |
|---------------------|--|--|--|--|

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27060311 |
| ECLASS-12.0 | 27060311 |
| ECLASS-13.0 | 27060311 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001855 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|

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## Environmental product compliance

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

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