

1508404  
<https://www.phoenixcontact.com/us/products/1508404>

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Sensor/actuator cable, 3-position, PVC, black RAL 9005, free cable end, on Socket straight M8, coding: A, cable length: 20 m

Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1508404                        |
| Packing unit                         | 5 pc                           |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to order (non-returnable) |
| Product key                          | AF1BBA                         |
| GTIN                                 | 4017918895297                  |
| Weight per piece (including packing) | 519 g                          |
| Weight per piece (excluding packing) | 495.1 g                        |
| Country of origin                    | DE                             |

# SAC-3P-20,0-PVC/M 8FS BK - Sensor/actuator cable



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## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Number of positions  | 3                     |
| 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          | Zinc die-cast, nickel-plated                |

### 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                        |

### Signaling

|                        |    |
|------------------------|----|
| Status display         | no |
| Status display present | no |

### Connector

#### Connection 1

|      |                |
|------|----------------|
| Type | free cable end |
|------|----------------|

#### Connection 2

|                     |                    |
|---------------------|--------------------|
| Type                | Socket straight M8 |
| Number of positions | 3                  |
| Coding type         | A                  |

### Cable/line

|              |      |
|--------------|------|
| Cable length | 20 m |
|--------------|------|

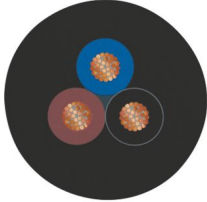
PVC black [PVC]

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|                                 |                                                                                                |
|---------------------------------|------------------------------------------------------------------------------------------------|
| Dimensional drawing             |              |
| Cable weight                    | 29 kg/km                                                                                       |
| Number of positions             | 3                                                                                              |
| Shielded                        | no                                                                                             |
| Cable type                      | PVC black [PVC]                                                                                |
| Conductor structure signal line | 32x 0.10 mm                                                                                    |
| AWG signal line                 | 24                                                                                             |
| Conductor cross section         | 3x 0.25 mm <sup>2</sup> (Signal line)                                                          |
| Wire diameter incl. insulation  | 1.25 mm ±0.02 mm                                                                               |
| External cable diameter         | 4.40 mm ±0.15 mm                                                                               |
| Outer sheath, material          | PVC                                                                                            |
| External sheath, color          | black RAL 9005                                                                                 |
| Conductor material              | Bare Cu litz wires                                                                             |
| Material wire insulation        | PVC                                                                                            |
| Single wire, color              | brown, blue, black                                                                             |
| Thickness, insulation           | ≥ 0.23 mm (Core insulation)                                                                    |
| Thickness, outer sheath         | ≥ 0.76 mm                                                                                      |
| Overall twist                   | 3 wires, twisted                                                                               |
| Max. conductor resistance       | max. 78 Ω/km (at 20 °C)                                                                        |
| Insulation resistance           | ≥ 100 MΩ*km (at 20 °C)                                                                         |
| Nominal voltage, cable          | ≥ 300 V                                                                                        |
| Test voltage                    | ≤ 3000 V                                                                                       |
| Flame resistance                | As per UL-Style 2464                                                                           |
| Ambient temperature (operation) | -25 °C ... 80 °C (cable, fixed installation)<br>-5 °C ... 80 °C (Cable, flexible installation) |

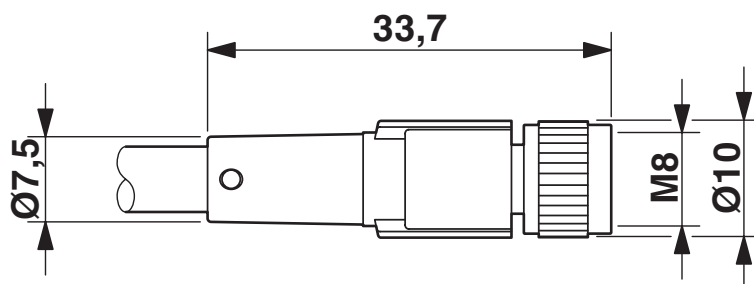
## Environmental and real-life conditions

### Ambient conditions

|                                 |                                                                                                                                    |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Degree of protection            | IP65<br>IP67<br>IP68                                                                                                               |
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket)<br>-25 °C ... 80 °C (cable, fixed installation)<br>-5 °C ... 80 °C (Cable, flexible installation) |

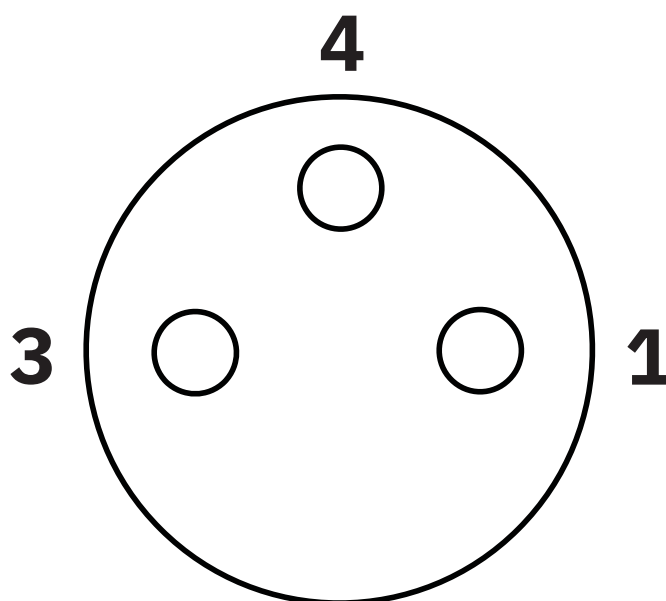
## Drawings

Dimensional drawing



Socket M8 x 1, straight

Schematic diagram



Pin assignment M8 socket, 3-pos., view female side

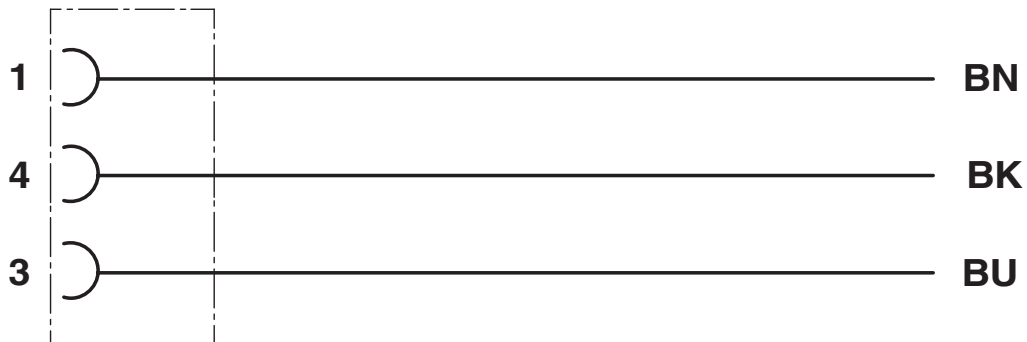
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Circuit diagram



Contact assignment of M8 socket

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## Approvals

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### UL Listed

Approval ID: FILE E 221474

|       | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
|-------|--------------------------------|--------------------------------|-------------------|-------------------------------|
| keine |                                |                                |                   |                               |
|       | 60 V                           | 4 A                            | -                 | -                             |



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Approval ID: FILE E 221474

|       | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
|-------|--------------------------------|--------------------------------|-------------------|-------------------------------|
| keine |                                |                                |                   |                               |
|       | 60 V                           | 4 A                            | -                 | -                             |



### EAC-RoHS

Approval ID: RU D-DE.HB35.B.00387

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## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

### China RoHS

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|                                        | No hazardous substances above the limits |

### EU REACH SVHC

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

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