

# SAC-17P-MS/5,0-35T/FS SH SCO - Sensor/actuator cable



1402421

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Sensor/actuator cable, 17-pos., PUR/PVC, RAL 9005 (black), shielded, straight M12 SPEEDCON male plug (A-coded) to straight M12 SPEEDCON female plug, cable length: 5 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Save time, thanks to installation with SPEEDCON fast locking system
- Save space – with high-pos. connectors
- Reliable signal transmission – 360° shielding in environments with electromagnetic interference

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1402421             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | BF03                |
| Product key                          | BF1CNA              |
| Catalog page                         | Page 215 (C-2-2019) |
| GTIN                                 | 4046356615419       |
| Weight per piece (including packing) | 575 g               |
| Weight per piece (excluding packing) | 560 g               |
| Customs tariff number                | 85444290            |
| Country of origin                    | DE                  |

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## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Application          | Standard              |
| Number of positions  | 17                    |
| 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 | V0                                          |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Contact material                       | CuZn                                        |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | PA 6.6                                      |
| Material for screw connection          | Zinc die-cast, nickel-plated                |

### Electrical properties

|                       |         |
|-----------------------|---------|
| Nominal voltage $U_N$ | 30 V AC |
|                       | 30 V DC |
| Nominal current $I_N$ | 1.5 A   |

### Mechanical properties

#### Mechanical data

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

### Signaling

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

### Connector

#### Connection 1

|                     |                            |
|---------------------|----------------------------|
| Type                | Plug straight M12 SPEEDCON |
| Number of positions | 17                         |
| Locking type        | SPEEDCON                   |
| Coding type         | A                          |

#### Connection 2

|      |                              |
|------|------------------------------|
| Type | Socket straight M12 SPEEDCON |
|------|------------------------------|

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|                     |          |
|---------------------|----------|
| Number of positions | 17       |
| Locking type        | SPEEDCON |
| Coding type         | A        |

## Cable/line

|              |     |
|--------------|-----|
| Cable length | 5 m |
|--------------|-----|

Black PUR/PVC twisted pair [35T]

|                                               |                                                                                                                                                 |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensional drawing                           |                                                               |
| Cable weight                                  | 105 kg/km                                                                                                                                       |
| UL AWM Style                                  | 20233 / 1061 (80°C/300 V)                                                                                                                       |
| Number of positions                           | 17                                                                                                                                              |
| Shielded                                      | yes                                                                                                                                             |
| Cable type                                    | Black PUR/PVC twisted pair [35T]                                                                                                                |
| Conductor structure signal line               | 18x 0.10 mm                                                                                                                                     |
| AWG signal line                               | 26                                                                                                                                              |
| Conductor cross section                       | 17x 0.14 mm <sup>2</sup> (Signal line)                                                                                                          |
| Wire diameter incl. insulation                | 1 mm ±0.05 mm (Signal line)                                                                                                                     |
| External cable diameter                       | 9.20 mm ±0.2 mm                                                                                                                                 |
| Outer sheath, material                        | PUR                                                                                                                                             |
| External sheath, color                        | black RAL 9005                                                                                                                                  |
| Conductor material                            | Tin-plated Cu litz wires                                                                                                                        |
| Material wire insulation                      | PVC                                                                                                                                             |
| Single wire, color                            | white-brown, green-yellow, gray-pink, blue-red, black-violet, gray/pink-red/blue, white/green-brown/green, white/yellow-yellow/brown-white/gray |
| Overall twist                                 | 7 pairs and 1 three-way unit, intertwisted                                                                                                      |
| Optical shield covering                       | 85 %                                                                                                                                            |
| Max. conductor resistance                     | 142 Ω/km (at 20 °C)                                                                                                                             |
| Insulation resistance                         | ≥ 10 MΩ*km (at 20 °C)                                                                                                                           |
| Nominal voltage, cable                        | 42 V AC                                                                                                                                         |
| Test voltage                                  | 1500 V AC                                                                                                                                       |
| Minimum bending radius, fixed installation    | 5 x D                                                                                                                                           |
| Minimum bending radius, flexible installation | 10 x D                                                                                                                                          |
| Smallest bending radius, fixed installation   | 46 mm                                                                                                                                           |
| Smallest bending radius, movable installation | 92 mm                                                                                                                                           |
| Max. bending cycles                           | 4000000                                                                                                                                         |
| Flame resistance                              | According to DIN EN 60332-1-2                                                                                                                   |

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|                                 |                                                                |
|---------------------------------|----------------------------------------------------------------|
|                                 | According to VW-1                                              |
| Resistance to oil               | in accordance with DIN EN 60811-2-1                            |
| Other resistance                | hydrolysis and microbe resistant (in accordance with EN 50396) |
| Special properties              | Flexible cable conduit capable                                 |
| Ambient temperature (operation) | -30 °C ... 80 °C (cable, fixed installation)                   |
|                                 | -5 °C ... 80 °C (Cable, flexible installation)                 |

## Environmental and real-life conditions

### Ambient conditions

|                                 |                                                |
|---------------------------------|------------------------------------------------|
| Degree of protection            | IP65                                           |
|                                 | IP67                                           |
| Ambient temperature (operation) | -25 °C ... 85 °C (Plug / socket)               |
|                                 | -40 °C ... 80 °C (cable, fixed installation)   |
|                                 | -5 °C ... 80 °C (Cable, flexible installation) |

## Standards and regulations

### M12

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

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