

# SAC-12P-MR/ 1,5-PVC SCO - Sensor/actuator cable



1554814

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Sensor/actuator cable, 12-position, PVC, black RAL 9005, Plug angled M12 SPEEDCON, coding: A, on free cable end, cable length: 1.5 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

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1554814       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF03          |
| Product key                          | AF1CGA        |
| GTIN                                 | 4046356176231 |
| Weight per piece (including packing) | 94.7 g        |
| Weight per piece (excluding packing) | 90.1 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  | 12                    |
| 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  |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Contact material                       | CuZn  |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | TPU GF                                      |
| Material for screw connection          | Zinc die-cast, nickel-plated                |

### Electrical properties

|                       |                           |
|-----------------------|---------------------------|
| Insulation resistance | $\geq 10 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 30 V AC                   |
|                       | 30 V DC                   |
| Nominal current $I_N$ | 1.5 A                     |

### Signaling

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

### Connection data

#### Conductor connection

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

### Connector

#### Connection 1

|                     |                          |
|---------------------|--------------------------|
| Type                | Plug angled M12 SPEEDCON |
| Number of positions | 12                       |
| Locking type        | SPEEDCON                 |
| Coding type         | A                        |

#### Connection 2

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

## Cable/line

|              |       |
|--------------|-------|
| Cable length | 1.5 m |
|--------------|-------|

## PVC black [PVC]

|   |  |
|---|--|
| Dimensional drawing                           |              |
| Number of positions                           | 12   |
| Shielded                                      | no   |
| Cable type                                    | PVC black [PVC]  |
| Conductor structure signal line               | 18x 0.10 mm  |
| AWG signal line                               | 26   |
| Conductor cross-section                       | 12x 0.14 mm <sup>2</sup> (Signal line)   |
| Wire diameter incl. insulation                | 1 mm ±0.05 mm (Signal line)  |
| External cable diameter                       | 5.80 mm  |
| Outer sheath, material                        | PVC  |
| External sheath, color                        | black RAL 9005   |
| Conductor material                            | Bare Cu litz wires   |
| Material wire insulation                      | PVC  |
| Single wire, color                            | white, brown, green, yellow, gray, pink, blue, red, black, violet, gray/pink, red/blue         |
| Overall twist                                 | 12 wires twisted in layers   |
| Max. conductor resistance                     | ≤ 142 Ω/km (at 20 °C)  |
| Insulation resistance                         | > 10 MΩ*km   |
| Nominal voltage, cable                        | 250 V  |
| Test voltage Core/Core                        | 1500 V AC  |
| Smallest bending radius, fixed installation   | 29 mm  |
| Smallest bending radius, movable installation | 87 mm  |
| Flame resistance                              | DIN EN 50265-2-1   |
| 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 |
|                      | IP67 |
|                      | IP68 |

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|   |  |
|---|--|
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 85 °C (Plug / socket)               |
| Ambient temperature (operation) (Cable, fixed installation)       | -25 °C ... 80 °C (cable, fixed installation)   |
| Ambient temperature (operation) (Cable, flexible installation)    | -5 °C ... 80 °C (Cable, flexible installation) |

## Standards and regulations

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

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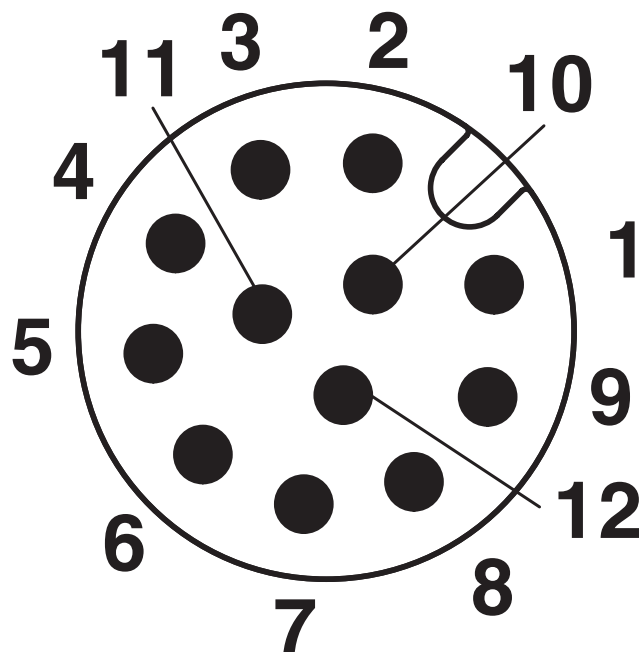
## Drawings

Dimensional drawing



M12 SPEEDCON plug, angled

Schematic diagram



Pin assignment M12 male connector, 12-pos., male side view

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Circuit diagram



Contact assignment of the M12 plug

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## Approvals

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|  <b>UL Listed</b><br>Approval ID: E221474 |                       |                       |                   |                             |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine  |                       |                       |                   |                             |
|  | 30 V                  | 1 A                   | -                 | -                           |

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

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## Classifications

### ECLASS

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

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | 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% |
|-------------------------------------|----------------------------|

### EF3.1 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 2.809 kg CO2e |
|---------|---------------|

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