

SAC-5P-M12MR/ 5,0-520/M12FR VA - Sensor/actuator cable



1564765  
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Sensor/actuator cable, 5-position, PVC, gray RAL 7001, Plug angled M12, coding: A, on Socket angled M12, coding: A, cable length: 5 m

Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1564765       |
| Packing unit                         | 5 pc          |
| Minimum order quantity               | 50 pc         |
| Product key                          | AF1CDA        |
| GTIN                                 | 4046356308878 |
| Weight per piece (including packing) | 283.68 g      |
| Weight per piece (excluding packing) | 283.68 g      |
| Country of origin                    | PL            |

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## Technical data

### Product properties

|                      |                       |
|----------------------|-----------------------|
| Product type         | Sensor/actuator cable |
| Number of positions  | 5                     |
| 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         | no |
| Status display present | no |

### Connector

#### Connection 1

|                     |                 |
|---------------------|-----------------|
| Type                | Plug angled M12 |
| Number of positions | 5               |
| Coding type         | A               |

#### Connection 2

|      |                   |
|------|-------------------|
| Type | Socket angled M12 |
|------|-------------------|

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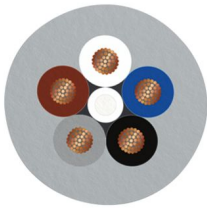
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|                     |   |
|---------------------|---|
| Number of positions | 5 |
| Coding type         | A |

## Cable/line

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

PVC gray 5th conductor gray [520]

|                                 |                                                                                                |
|---------------------------------|------------------------------------------------------------------------------------------------|
| Dimensional drawing             |              |
| Cable weight                    | 54 kg/km                                                                                       |
| Number of positions             | 5                                                                                              |
| Shielded                        | no                                                                                             |
| Cable type                      | PVC gray 5th conductor gray [520]                                                              |
| Conductor structure signal line | 42x 0.10 mm                                                                                    |
| AWG signal line                 | 22                                                                                             |
| Conductor cross section         | 0.34 mm²                                                                                       |
| Wire diameter incl. insulation  | 1.45 mm ±0.02 mm                                                                               |
| External cable diameter         | 5.90 mm ±0.15 mm                                                                               |
| Outer sheath, material          | PVC                                                                                            |
| External sheath, color          | gray RAL 7001                                                                                  |
| Conductor material              | Bare Cu litz wires                                                                             |
| Material, filler                | PVC                                                                                            |
| Material wire insulation        | PVC                                                                                            |
| Single wire, color              | brown, white, blue, black, gray                                                                |
| Thickness, insulation           | ≥ 0.23 mm (Core insulation)<br>≥ 0.76 mm (Outer cable sheath)                                  |
| Overall twist                   | 5 wires around filler to the core                                                              |
| Length of twist, overall twist  | 55 mm                                                                                          |
| Max. conductor resistance       | max. 58 Ω/km (at 20 °C)                                                                        |
| Insulation resistance           | ≥ 1 GΩ*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

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|                                 |                                                |
|---------------------------------|------------------------------------------------|
| Degree of protection            | IP65                                           |
|                                 | IP67                                           |
|                                 | IP68                                           |
|                                 | IP69K                                          |
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket)               |
|                                 | -25 °C ... 80 °C (cable, fixed installation)   |
|                                 | -5 °C ... 80 °C (Cable, flexible installation) |

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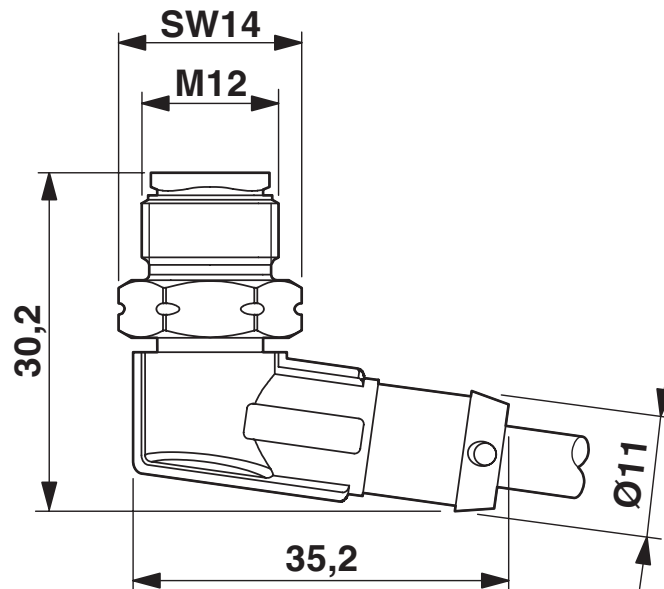


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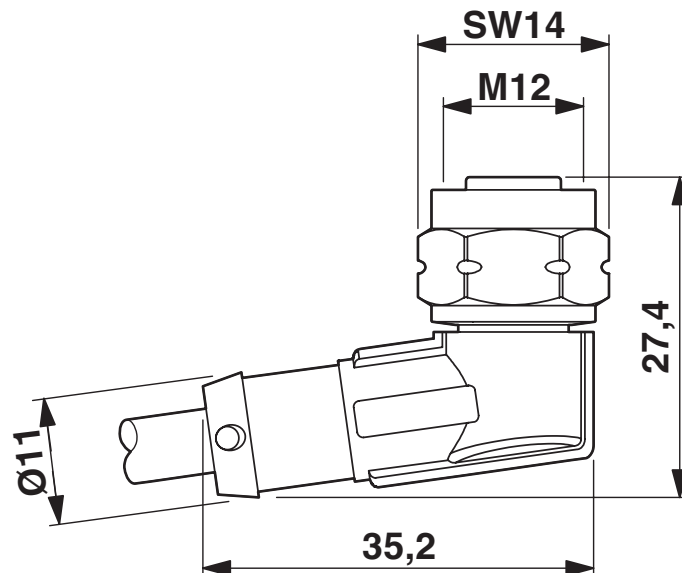
## Drawings

Dimensional drawing



M12 x 1 male plug, angled

Dimensional drawing



M12 x 1 socket, angled

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Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

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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 |

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 31251501 |
|-------------|----------|

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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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