

# SAC-4P-M12MR/ 3,0-PUR/M12FR TP - Sensor/actuator cable



1505203

<https://www.phoenixcontact.com/us/products/1505203>

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Sensor/actuator cable, 4-position, PUR/PVC, green RAL 6017, Plug angled M12, coding: A, on Socket angled M12, coding: A, cable length: 3 m

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1505203                        |
| Packing unit                         | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | BF03                           |
| Product key                          | AF1CCA                         |
| GTIN                                 | 4017918902384                  |
| Weight per piece (including packing) | 230.1 g                        |
| Weight per piece (excluding packing) | 230.1 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                     |
| 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 $U_N$ | 250 V AC                   |
|                       | 250 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 | 4               |
| Coding type         | A               |

#### Connection 2

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

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|                     |   |
|---------------------|---|
| Number of positions | 4 |
| Coding type         | A |

## Cable/line

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

### PUR/PVC green [350]

|                                               |                                                                                                      |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------|
| Number of positions                           | 4                                                                                                    |
| Shielded                                      | no                                                                                                   |
| Cable type                                    | PUR/PVC green [350]                                                                                  |
| Conductor structure signal line               | 28x 0.15 mm                                                                                          |
| AWG signal line                               | 20                                                                                                   |
| Conductor cross section                       | 0.5 mm <sup>2</sup>                                                                                  |
| External cable diameter                       | 7.8 mm                                                                                               |
| Outer sheath, material                        | PUR                                                                                                  |
| External sheath, color                        | green RAL 6017                                                                                       |
| Conductor material                            | Bare Cu litz wires                                                                                   |
| Material wire insulation                      | PVC                                                                                                  |
| Single wire, color                            | brown-white, green-yellow                                                                            |
| Thickness, insulation                         | Core insulation<br>approx. 1.00 mm (Inner sheath)<br>approx. 0.70 mm (Outer cable sheath)            |
| Nominal voltage, cable                        | 300 V                                                                                                |
| Test voltage                                  | 1500 V                                                                                               |
| Smallest bending radius, movable installation | 78 mm                                                                                                |
| Dynamic load capacity (bending)               | Max. bending cycles: 2000000, Bending radius: 78 mm,<br>Traversing path: 5 m, Traversing rate: 3 m/s |
| 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>-40 °C ... 80 °C (cable, fixed installation)<br>-5 °C ... 80 °C (Cable, flexible installation) |

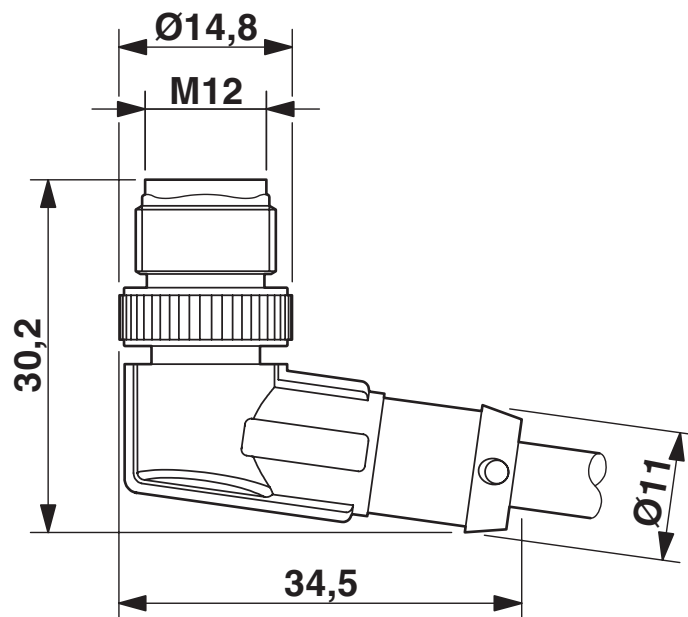
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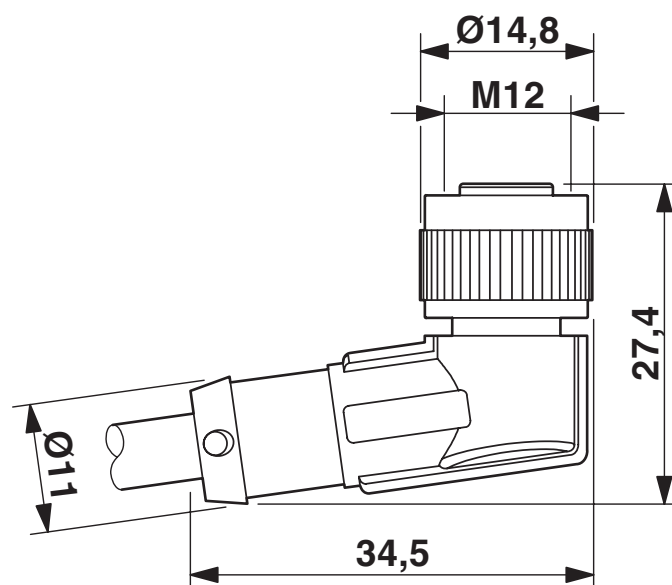
## Drawings

Dimensional drawing



M12 x 1 male plug, angled

Dimensional drawing



M12 x 1 socket, angled

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Schematic diagram



Pin assignment M12 plug, 4-pos., A-coded, view plug side

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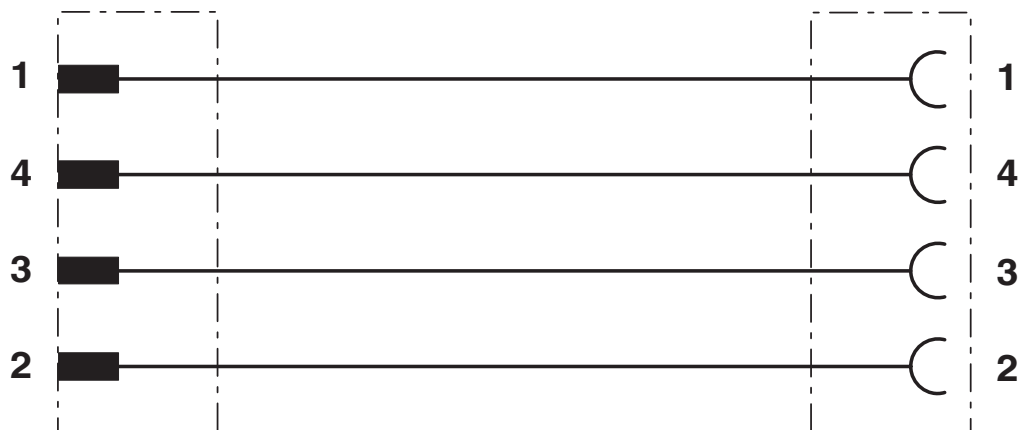
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Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side

Circuit diagram



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## Classifications

### ECLASS

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

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## Environmental product compliance

### China RoHS

| Environment friendly use period (EFUP) | EFUP-50                                                                                                                                                                                                                           |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

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

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