

# SAC-4P- 5,0-240/M12FR - Sensor/actuator cable



1543621

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Sensor/actuator cable, 4-position, PUR halogen-free, yellow, free cable end, on Socket angled M12, cable length: 5 m

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1543621       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF03          |
| Product key                          | BF1CCA        |
| GTIN                                 | 4046356099004 |
| Weight per piece (including packing) | 161.2 g       |
| Weight per piece (excluding packing) | 158.7 g       |
| Customs tariff number                | 85444290      |
| Country of origin                    | DE            |

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## Technical data

### Product properties

|                     |                       |
|---------------------|-----------------------|
| Product type        | Sensor/actuator cable |
| Number of positions | 4                     |
| Shielded            | no                    |

### Insulation characteristics

|                      |    |
|----------------------|----|
| Overvoltage category | II |
| Degree of pollution  | 3  |

### Material specifications

|                               |                                             |
|-------------------------------|---------------------------------------------|
| 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

|                       |          |
|-----------------------|----------|
| Nominal voltage $U_N$ | 250 V AC |
|                       | 250 V DC |
| Nominal current $I_N$ | 4 A      |

### Mechanical properties

#### Mechanical data

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

### Connection data

#### Conductor connection

|                   |        |
|-------------------|--------|
| Tightening torque | 0.4 Nm |
|-------------------|--------|

### Connector

#### Connection 1

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

#### Connection 2

|                     |                   |
|---------------------|-------------------|
| Type                | Socket angled M12 |
| Number of positions | 4                 |

### Cable/line

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

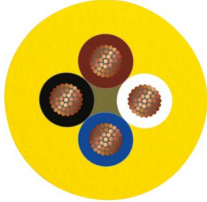
PUR halogen-free yellow [240]

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|                                               |                                                                                                                        |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Dimensional drawing                           |                                      |
| Cable weight                                  | 30 kg/km                                                                                                               |
| Number of positions                           | 4                                                                                                                      |
| Shielded                                      | no                                                                                                                     |
| Cable type                                    | PUR halogen-free yellow [240]                                                                                          |
| Conductor structure signal line               | 42x 0.10 mm                                                                                                            |
| AWG signal line                               | 22                                                                                                                     |
| Conductor cross section                       | 4x 0.34 mm <sup>2</sup>                                                                                                |
| Wire diameter incl. insulation                | 1.27 mm ±0.02 mm                                                                                                       |
| External cable diameter                       | 4.70 mm ±0.15 mm                                                                                                       |
| Outer sheath, material                        | PUR                                                                                                                    |
| External sheath, color                        | yellow                                                                                                                 |
| Conductor material                            | Bare Cu litz wires                                                                                                     |
| Material wire insulation                      | PP                                                                                                                     |
| Single wire, color                            | brown, white, blue, black                                                                                              |
| Thickness, insulation                         | ≥ 0.21 mm (Core insulation)<br>approx. 0.80 mm (Outer cable sheath)                                                    |
| Overall twist                                 | 4 wires, twisted                                                                                                       |
| Length of twist, overall twist                | 49.5 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                                                                                                               |
| Smallest bending radius, fixed installation   | 23.5 mm                                                                                                                |
| Smallest bending radius, movable installation | 47 mm                                                                                                                  |
| Max. bending cycles                           | 4000000                                                                                                                |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815<br>in accordance with DIN EN 50267-2-1                                        |
| Flame resistance                              | in accordance with DIN UL-Style 20549<br>in accordance with FT1 as per UL 758                                          |
| Resistance to oil                             | in accordance with DIN EN 60811-2-1                                                                                    |
| Other resistance                              | Highly resistant to acids, alkaline solutions and solvents<br>hydrolysis and microbe resistant                         |
| Special properties                            | Flexible cable conduit capable<br>Silicone-free<br>Free of substances which would hinder coating with paint or varnish |

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|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)    |
|                                 | -25 °C ... 80 °C (Cable, flexible installation) |

## Environmental and real-life conditions

|                                 |                                                |
|---------------------------------|------------------------------------------------|
| Ambient conditions              |                                                |
| Degree of protection            | IP65                                           |
|                                 | IP67                                           |
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket)               |
|                                 | -40 °C ... 80 °C (cable, fixed installation)   |
|                                 | -5 °C ... 80 °C (Cable, flexible installation) |

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## Drawings

Dimensional drawing



M12 x 1 socket, angled

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## Approvals

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|  |                                                |                       |                   |                             |
|--|------------------------------------------------|-----------------------|-------------------|-----------------------------|
|  | <b>UL Listed</b><br>Approval ID: FILE E 221474 |                       |                   |                             |
|  | Nominal voltage $U_N$                          | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|  | 300 V                                          | 4 A                   | -                 | -                           |

|  |                                                 |                       |                   |                             |
|--|-------------------------------------------------|-----------------------|-------------------|-----------------------------|
|  | <b>cUL Listed</b><br>Approval ID: FILE E 221474 |                       |                   |                             |
|  | Nominal voltage $U_N$                           | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|  | 300 V                                           | 4 A                   | -                 | -                           |

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

|                     |
|---------------------|
| <b>cULus Listed</b> |
|---------------------|

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27060311 |
| ECLASS-12.0 | 27060311 |
| ECLASS-13.0 | 27060311 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | 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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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)