

# SAC-4P-MS/1,5-570/FS COIL - Sensor/actuator cable



1698983

<https://www.phoenixcontact.com/us/products/1698983>

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Sensor/actuator cable, 4-position, PUR, black, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 1.5 m, spiraled

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1698983       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF18          |
| Product key                          | AF1ICA        |
| GTIN                                 | 4067923264458 |
| Weight per piece (including packing) | 298 g         |
| Weight per piece (excluding packing) | 298 g         |
| Country of origin                    | US            |

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## Technical data

### Notes

#### Trade restriction

|         |                                                                                                |
|---------|------------------------------------------------------------------------------------------------|
| CE note | The products are offered exclusively for export outside the EU and the European Economic Area. |
|---------|------------------------------------------------------------------------------------------------|

### Product properties

|                      |                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product type         | Sensor/actuator cable                                                                                                                                       |
| Application          | Standard, U.S. cables                                                                                                                                       |
| Number of positions  | 4                                                                                                                                                           |
| No. of cable outlets | 1                                                                                                                                                           |
| Special properties   | Coil cords are rated to 500,000 cycles when extended no greater than three times the retracted length and not subject to any adverse or abusive conditions. |
| Shielded             | no                                                                                                                                                          |
| Coding               | A                                                                                                                                                           |

### 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                |
| Outer sheath, material                 | PUR                                         |

### Electrical properties

|                       |                           |
|-----------------------|---------------------------|
| Insulation resistance | $\geq 10 \text{ M}\Omega$ |
| Nominal voltage $U_N$ | 300 V AC                  |
|                       | 300 V DC                  |
| Nominal current $I_N$ | 1.2 A                     |

### Mechanical properties

#### Mechanical data

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

### Signaling

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

### Connection data

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## Conductor connection

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

## Connector

### Connection 1

|                     |                   |
|---------------------|-------------------|
| Type                | Plug straight M12 |
| Number of positions | 4                 |
| Coding type         | A                 |

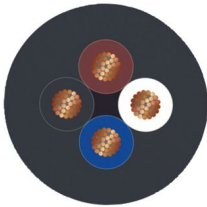
### Connection 2

|                     |                     |
|---------------------|---------------------|
| Type                | Socket straight M12 |
| Number of positions | 4                   |
| Coding type         | A                   |

## Cable/line

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

### PUR black [570]

|                                               |                                                                                      |
|-----------------------------------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing                           |  |
| Cable weight                                  | 33.7 kg/km                                                                           |
| Number of positions                           | 4                                                                                    |
| Shielded                                      | no                                                                                   |
| Cable type                                    | PUR black [570]                                                                      |
| Conductor structure signal line               | 44x 0.10 mm                                                                          |
| AWG signal line                               | 22                                                                                   |
| Wire diameter incl. insulation                | 0.76 mm                                                                              |
| External cable diameter                       | 4.70 mm ±0.2 mm                                                                      |
| Outer sheath, material                        | PUR                                                                                  |
| External sheath, color                        | black                                                                                |
| Conductor material                            | Tin-plated Cu litz wires                                                             |
| Material, filler                              | Cotton                                                                               |
| Material wire insulation                      | PVC                                                                                  |
| Single wire, color                            | brown, white, blue, black                                                            |
| Overall twist                                 | 4 wires, twisted                                                                     |
| Max. conductor resistance                     | max. 66.6 Ω/km (20 °C)                                                               |
| Nominal voltage, cable                        | 300 V                                                                                |
| Minimum bending radius, flexible installation | 6 x D                                                                                |

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|                                               |                                               |
|-----------------------------------------------|-----------------------------------------------|
| Smallest bending radius, movable installation | 29 mm                                         |
| Ambient temperature (operation)               | -15 °C ... 105 °C (cable, fixed installation) |

## Environmental and real-life conditions

### Ambient conditions

|                                                                   |                                               |
|-------------------------------------------------------------------|-----------------------------------------------|
| Degree of protection                                              | IP65                                          |
|                                                                   | IP67                                          |
| Ambient temperature (operation) (male connector/female connector) | -25 °C ... 90 °C (Plug / socket)              |
| Ambient temperature (operation) (Cable, fixed installation)       | -15 °C ... 105 °C (cable, fixed installation) |

## Standards and regulations

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

# SAC-4P-MS/1,5-570/FS COIL - Sensor/actuator cable

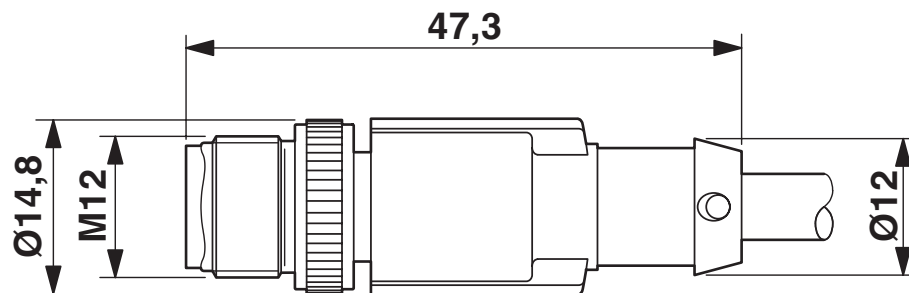


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## Drawings

Dimensional drawing



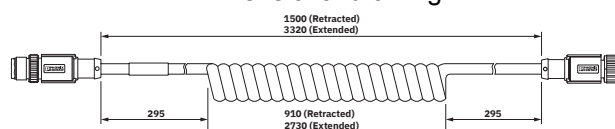
Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

Dimensional drawing

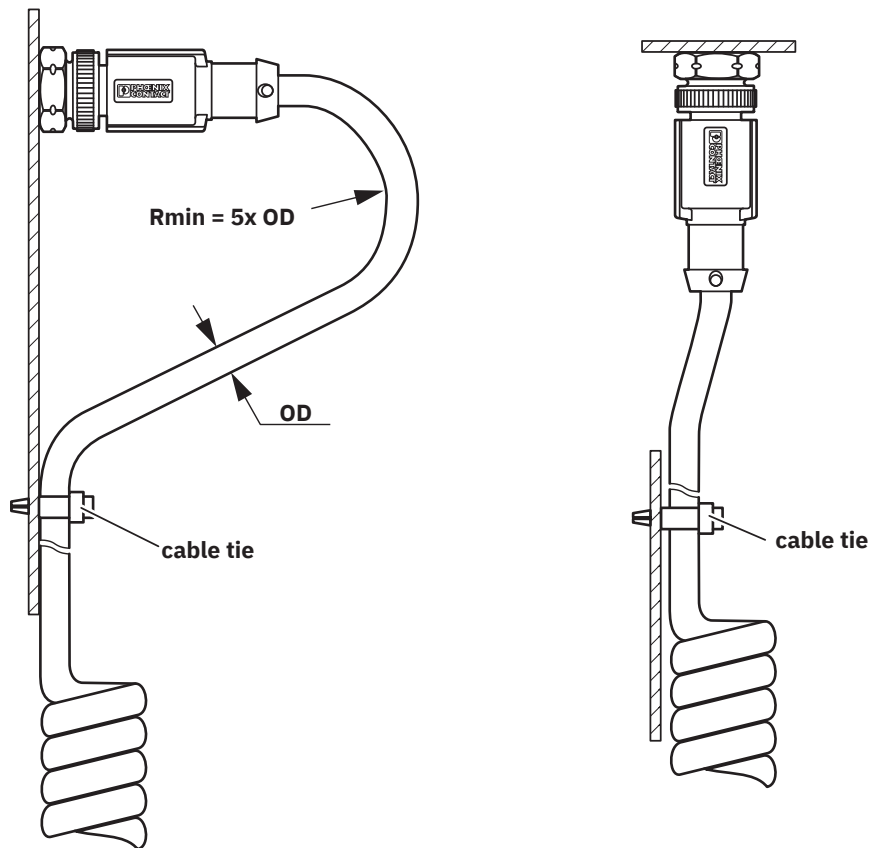


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Application drawing

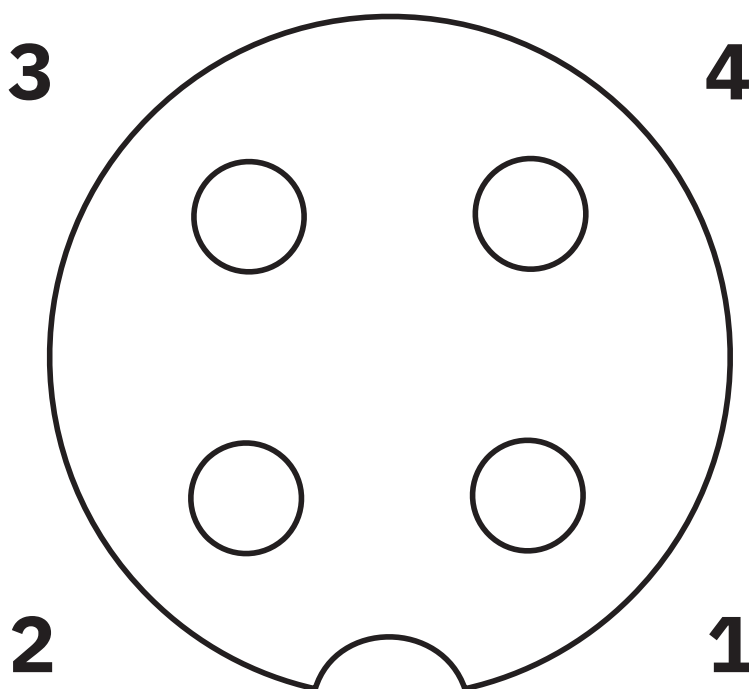


Schematic diagram



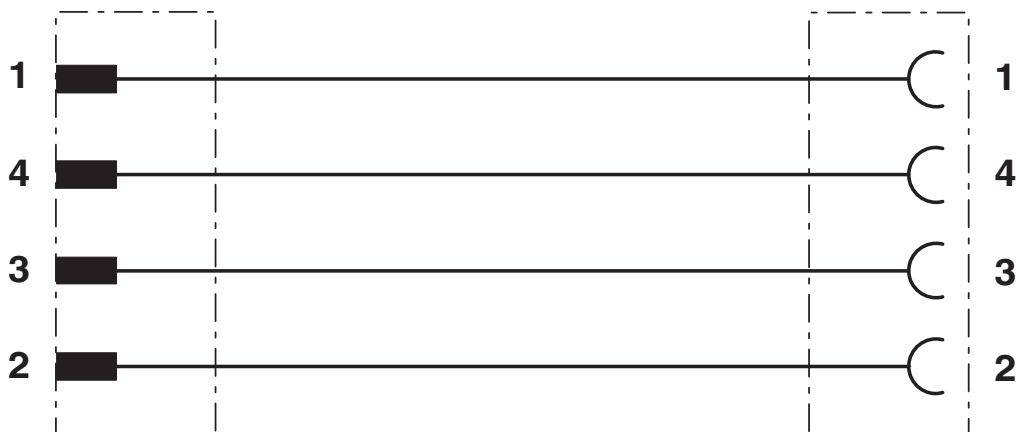
Pin assignment M12 plug, 4-pos., A-coded, view plug side

Schematic diagram



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

Circuit diagram



Contact assignment of M8 plugs / M12 sockets

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## Classifications

### ECLASS

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

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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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