

# Sensor/actuator cable - SAC-3P-M12MS/2,0-PVC - 1693160


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Sensor/actuator cable, 3-position, PVC, black RAL 9005, Plug straight M12, A-coded, on free cable end, cable length: 2 m

RoHS

## Key Commercial Data

|                      |                                                                                                         |
|----------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit         | 1                                                                                                       |
| GTIN                 | <br>4 017918 428501 |
| GTIN                 | 4017918428501                                                                                           |
| Custom tariff number | 85444290                                                                                                |

## Technical data

### Dimensions

|                                            |       |
|--------------------------------------------|-------|
| Length of cable                            | 2 m   |
| Stripping length of the free conductor end | 50 mm |

### Ambient conditions

|                                 |                                  |
|---------------------------------|----------------------------------|
| Ambient temperature (operation) | -25 °C ... 90 °C (Plug / socket) |
| Degree of protection            | IP65                             |
|                                 | IP67                             |
|                                 | IP68                             |

### General

|                       |              |
|-----------------------|--------------|
| Rated current at 40°C | 4 A          |
| Rated voltage         | 250 V AC     |
|                       | 250 V DC     |
| Number of positions   | 3            |
| Insulation resistance | ≥ 100 MΩ     |
| Coding                | A - standard |
| Status display        | No           |
| Overvoltage category  | II           |

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## Technical data

### General

|                             |       |
|-----------------------------|-------|
| Degree of pollution         | 3     |
| Insertion/withdrawal cycles | ≥ 100 |

### Material

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Flammability rating according to UL 94 | HB                                          |
| Contact material                       | CuSn                                        |
| Contact surface material               | Ni/Au                                       |
| Contact carrier material               | TPU GF                                      |
| Material of grip body                  | TPU, hardly inflammable, self-extinguishing |
| Material, knurls                       | Zinc die-cast, nickel-plated                |

### Standards and Regulations

|                                        |    |
|----------------------------------------|----|
| Flammability rating according to UL 94 | HB |
|----------------------------------------|----|

### Cable

|                                               |                                                                                                 |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------|
| Cable type                                    | PVC black                                                                                       |
| Cable type (abbreviation)                     | PVC                                                                                             |
| Cable abbreviation                            | LiYY                                                                                            |
| UL AWM style                                  | 2464 / 1729 (80°C/300 V)                                                                        |
| Conductor cross section                       | 3x 0.34 mm <sup>2</sup> (Signal line)                                                           |
| AWG signal line                               | 22                                                                                              |
| Conductor structure signal line               | 19x 0.15 mm                                                                                     |
| Core diameter including insulation            | 1.26 mm ±0.05 mm                                                                                |
| Thickness, insulation                         | ≥ 0.23 mm (Core insulation)                                                                     |
| Wire colors                                   | brown, blue, black                                                                              |
| Overall twist                                 | 3 wires, twisted                                                                                |
| External sheath, color                        | black RAL 9005                                                                                  |
| Outer sheath thickness                        | ≥ 0.76 mm                                                                                       |
| External cable diameter D                     | 4.3 mm ±0.2 mm                                                                                  |
| Minimum bending radius, fixed installation    | 5 x D                                                                                           |
| Minimum bending radius, flexible installation | 10 x D                                                                                          |
| Cable weight                                  | 40 kg/km                                                                                        |
| Outer sheath, material                        | PVC                                                                                             |
| Material conductor insulation                 | PVC                                                                                             |
| Conductor material                            | Bare Cu litz wires                                                                              |
| Insulation resistance                         | ≥ 100 MΩ*km (at 20 °C)                                                                          |
| Conductor resistance                          | max. 57 Ω/km (at 20 °C)                                                                         |
| Nominal voltage, cable                        | ≤ 300 V                                                                                         |
| Test voltage, cable                           | ≥ 2500 V                                                                                        |
| Flame resistance                              | As per UL-Style 2464                                                                            |
| Ambient temperature (operation)               | -40 °C ... 80 °C (cable, fixed installation)<br>-25 °C ... 80 °C (cable, flexible installation) |

# Sensor/actuator cable - SAC-3P-M12MS/2,0-PVC - 1693160

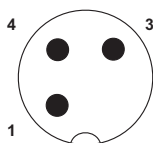
## Technical data

### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

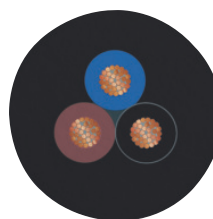
## Drawings

Schematic diagram



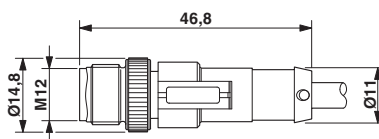
Pin assignment M12 plug, 3-pos., A-coded, view male side

Cable cross section



PVC black [PVC]

Dimensional drawing



Plug, M12 x 1, straight, shielded

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061800 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |
| eCl@ss 9.0 | 27060311 |

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |

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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |

## Approvals


### Approvals


#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

#### Ex Approvals

### Approval details

|                    |                                                                                     |                                                                                                                                                       |               |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL Listed          |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
| Nominal voltage UN |                                                                                     | 300 V                                                                                                                                                 |               |
| Nominal current IN |                                                                                     | 4 A                                                                                                                                                   |               |

|                    |                                                                                     |                                                                                                                                                       |               |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| cUL Listed         |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 221474 |
| Nominal voltage UN |                                                                                     | 300 V                                                                                                                                                 |               |
| Nominal current IN |                                                                                     | 4 A                                                                                                                                                   |               |

|     |                                                                                     |                          |
|-----|-------------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.AI30.B.01102 |
|-----|-------------------------------------------------------------------------------------|--------------------------|

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### Approvals

cULus Listed



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