

## Sensor/Actuator cable - SAC-3P-M12MS/5,0-PVC/M12FS B-L - 1431966

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Sensor/Actuator cable, 3-position, PVC, Black RAL 9005, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 5 m

### Product Features

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our PVC cable for average mechanical strain



### Key commercial data

|                                      |            |
|--------------------------------------|------------|
| Packing unit                         | 1 1        |
| Weight per Piece (excluding packing) | 222.22 GRM |
| Custom tariff number                 | 85444290   |
| Country of origin                    | China      |

### Technical data

#### Dimensions

|                 |     |
|-----------------|-----|
| Length of cable | 5 m |
|-----------------|-----|

#### 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    |
| Number of positions   | 3        |
| Contact resistance    | ≤ 5 mΩ   |
| Insulation resistance | ≥ 100 MΩ |

# Sensor/Actuator cable - SAC-3P-M12MS/5,0-PVC/M12FS B-L - 1431966

## Technical data

### General

|                             |                               |
|-----------------------------|-------------------------------|
| Coding                      | A - standard                  |
| Standards/regulations       | M12 connector IEC 61076-2-101 |
| Status display              | No                            |
| Surge voltage category      | II                            |
| Pollution degree            | 3                             |
| Insertion/withdrawal cycles | ≥ 100                         |
| Torque                      | 0.4 Nm (M12 connector)        |

### Material

|   |   |
|---|---|
| Inflammability class 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                |

### 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               | 42x 0.10 mm                           |
| Core diameter including insulation            | 1.45 mm ±0.02 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                     | 5.2 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)                |

# Sensor/Actuator cable - SAC-3P-M12MS/5,0-PVC/M12FS B-L - 1431966

## Technical data

### Cable

|                                 |   |
|---------------------------------|---|
| Conductor resistance            | max. 58 Ω/km (at 20 °C)                         |
| Nominal voltage, cable          | ≤ 300 V   |
| Test voltage, cable             | ≥ 3000 V  |
| Flame resistance                | As per UL-Style 2464                            |
| Resistance to oil               | According to DIN EN 60811-2-1, 168 h at 90°C    |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation)    |
|                                 | -25 °C ... 80 °C (cable, flexible installation) |

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27060306 |
| eCl@ss 4.1 | 27060306 |
| eCl@ss 5.0 | 27061801 |
| eCl@ss 5.1 | 27061801 |
| eCl@ss 6.0 | 27061801 |
| eCl@ss 7.0 | 27061801 |
| eCl@ss 8.0 | 27061801 |

### ETIM

|          |          |
|----------|----------|
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | 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 / cULus Listed

# Sensor/Actuator cable - SAC-3P-M12MS/5,0-PVC/M12FS B-L - 1431966

## Approvals

Ex Approvals

---

Approvals submitted

---

## Approval details

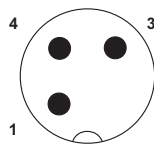
|                    |       |
|--------------------|-------|
| UL Listed          |       |
|                    |       |
| Nominal current IN | 4 A   |
| Nominal voltage UN | 300 V |

|                    |       |
|--------------------|-------|
| cUL Listed         |       |
|                    |       |
| Nominal current IN | 4 A   |
| Nominal voltage UN | 300 V |

|              |  |
|--------------|--|
| cULus Listed |  |
|--------------|--|

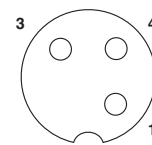
## Drawings

Schematic diagram



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

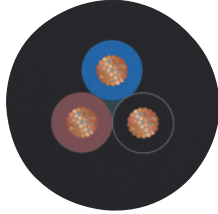
Schematic diagram



Pin assignment M12 socket, 3-pos., A-coded, view female side

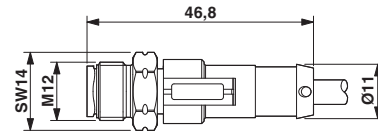
# Sensor/Actuator cable - SAC-3P-M12MS/5,0-PVC/M12FS B-L - 1431966

Cable cross section



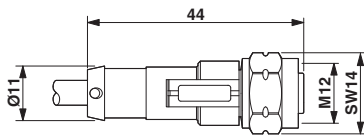
PVC black [PVC]

Dimensioned drawing



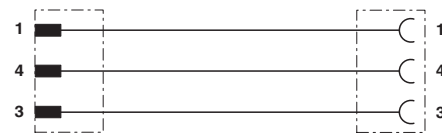
M12 x 1 plug, straight

Dimensioned drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 connector and the M12 socket