

## Bus system cable - SAC-5P-MS/ 5,0-924 SCO - 1405980

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Bus system cable, CANopen®, DeviceNet™, 5-position, PVC, gray, shielded, Plug straight M12 SPEEDCON, coding: A, on free cable end, cable length: 5 m, Connector unshielded

RoHS



### Key Commercial Data

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit           | 1 pc                                                                                                    |
| Minimum order quantity | 50 pc                                                                                                   |
| GTIN                   | <br>4 046356 800488 |
| GTIN                   | 4046356800488                                                                                           |

### 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         | 48 V AC      |
|                       | 60 V DC      |
| Number of positions   | 5            |
| Insulation resistance | ≥ 100 MΩ     |
| Coding                | A - standard |
| Signal type/category  | CANopen®     |
|                       | DeviceNet™   |

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## Technical data

### General

|                      |                        |
|----------------------|------------------------|
| Status display       | No                     |
| Overvoltage category | II                     |
| Degree of pollution  | 3                      |
| Torque               | 0.4 Nm (M12 connector) |

### 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                                    | CANopen <sup>®</sup> /DeviceNet <sup>™</sup> , PVC, gray                    |
| Cable type (abbreviation)                     | 924                                                                         |
| UL AWM style                                  | 2464 (80°C/300 V)                                                           |
| Cable structure                               | 2xAWG22 (Signal) + 2xAWG22 (Power)                                          |
| Conductor cross section                       | 2x 0.34 mm <sup>2</sup> (Signal line)                                       |
|                                               | 2x 0.34 mm <sup>2</sup> (Power supply)                                      |
| AWG signal line                               | 22                                                                          |
| AWG power supply                              | 22                                                                          |
| Conductor structure signal line               | 19x 0.15 mm                                                                 |
| Conductor structure, voltage supply           | 19x 0.15 mm                                                                 |
| Core diameter including insulation            | 1.27 mm ±0.05 mm (Signal line)                                              |
|                                               | 2.24 mm ±0.13 mm (Power supply)                                             |
| Wire colors                                   | Red-black, blue-white                                                       |
| Twisted pairs                                 | 2 cores to the pair                                                         |
| Type of pair shielding                        | Plastic-coated aluminum foil, aluminum side inside                          |
| Overall twist                                 | 2 pairs around a drain wire in the center to the core                       |
| Shielding                                     | Plastic-coated aluminum foil with a filler litz wire, aluminum side outside |
| External sheath, color                        | gray                                                                        |
| External cable diameter D                     | 6.9 mm ±0.13 mm                                                             |
| Minimum bending radius, flexible installation | 15 x D                                                                      |
| Cable weight                                  | 64.51 kg/km                                                                 |
| Outer sheath, material                        | PVC                                                                         |
| Material conductor insulation                 | Foamed PE (Signal line)                                                     |
|                                               | PVC (Power supply)                                                          |
| Conductor material                            | Bare Cu litz wires                                                          |

## Bus system cable - SAC-5P-MS/ 5,0-924 SCO - 1405980

### Technical data

#### Cable

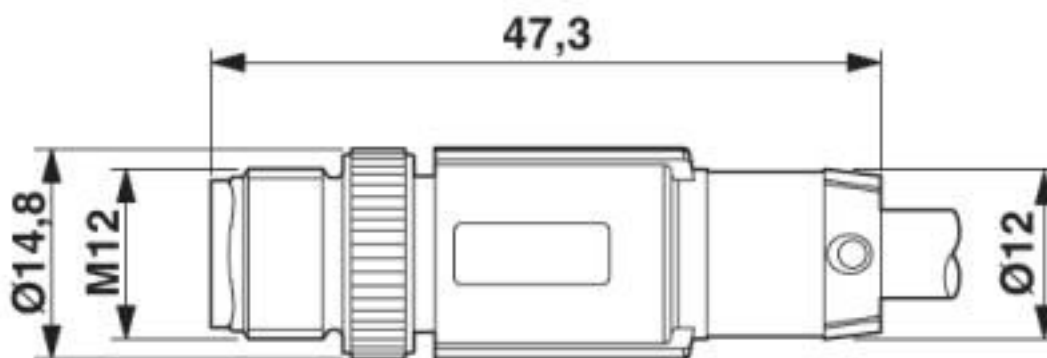
|                                 |                                              |
|---------------------------------|----------------------------------------------|
| Insulation resistance           | ≥ 59.38 Ω*m (Signal line)                    |
|                                 | ≥ 57.41 GΩ*km (Power supply)                 |
| Working capacitance             | nom. 78.74 pF (per meter)                    |
| Wave impedance                  | 120 Ω ±12 Ω                                  |
| Signal runtime                  | 4.46 ns/m                                    |
| Shield attenuation              | 0.95 dB (f = 125 kHz)                        |
|                                 | 1.64 dB (f = 500 kHz)                        |
|                                 | 2.3 dB (f = 1 MHz)                           |
| Special properties              | UL standards PLTC and ITC                    |
| Resistance to oil               | yes                                          |
| Other resistance                | UV resistant                                 |
| Ambient temperature (operation) | -30 °C ... 75 °C (cable, fixed installation) |

#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50 years                                                      |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

### Drawings

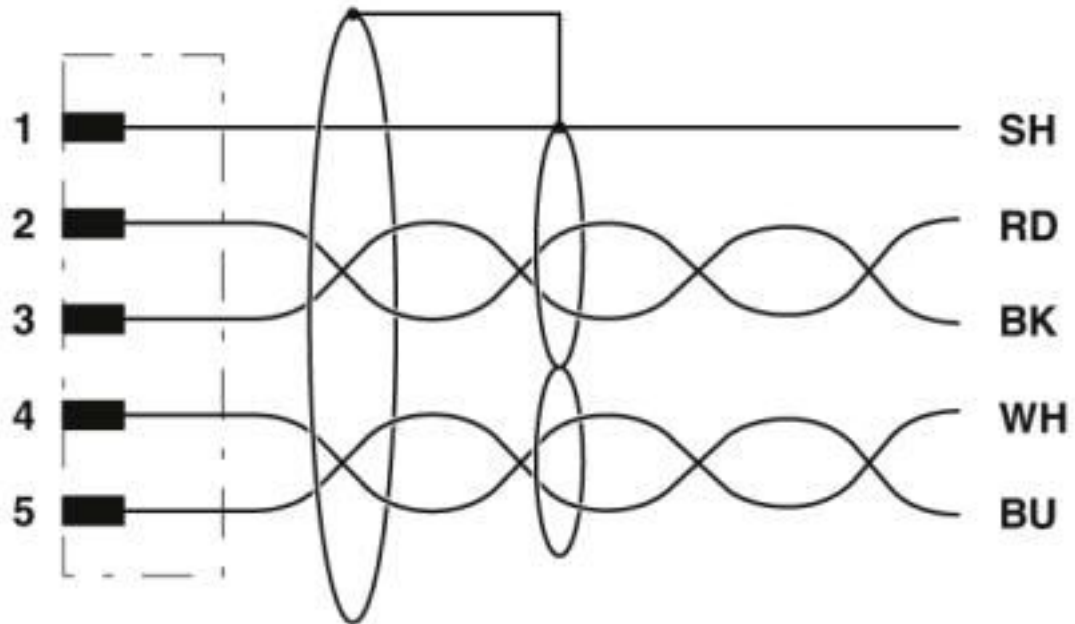
Dimensional drawing



Plug, M12 x 1, straight

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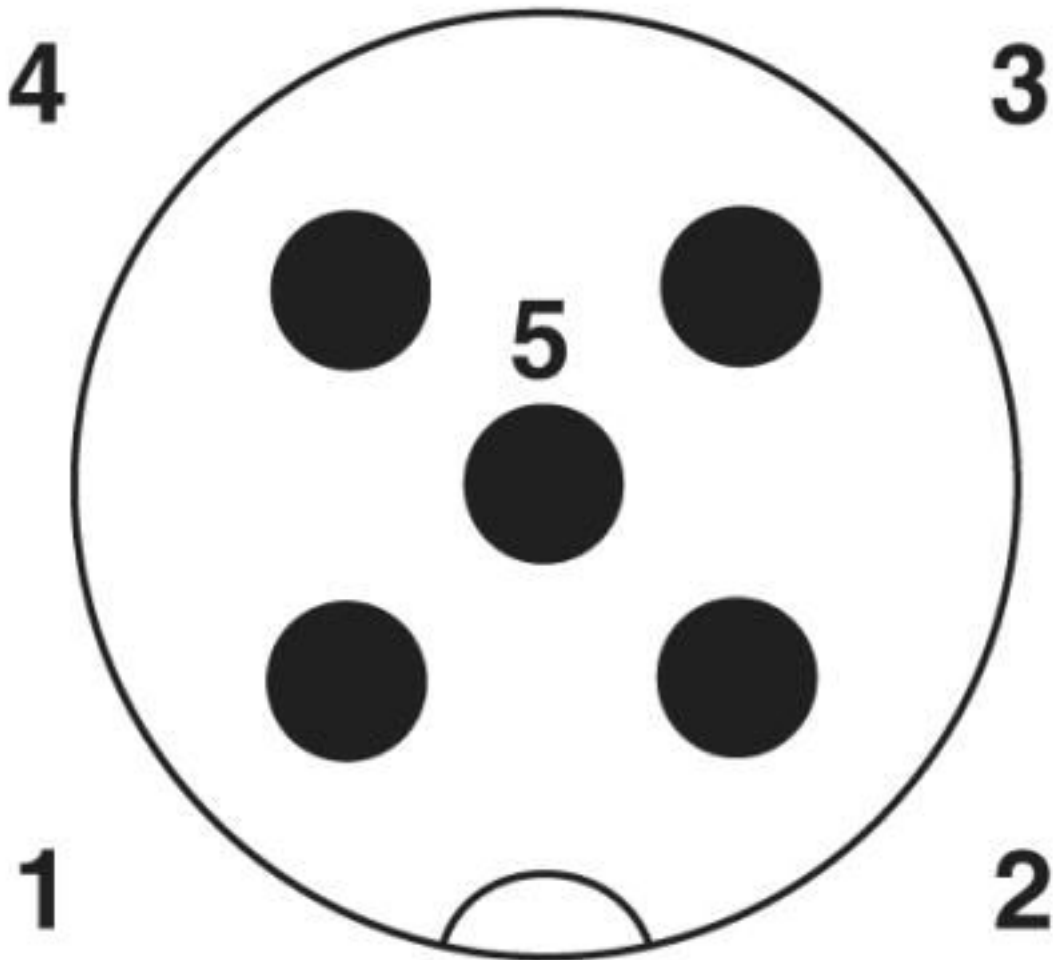
Circuit diagram



Contact assignment of the M12 plug

## Bus system cable - SAC-5P-MS/ 5,0-924 SCO - 1405980

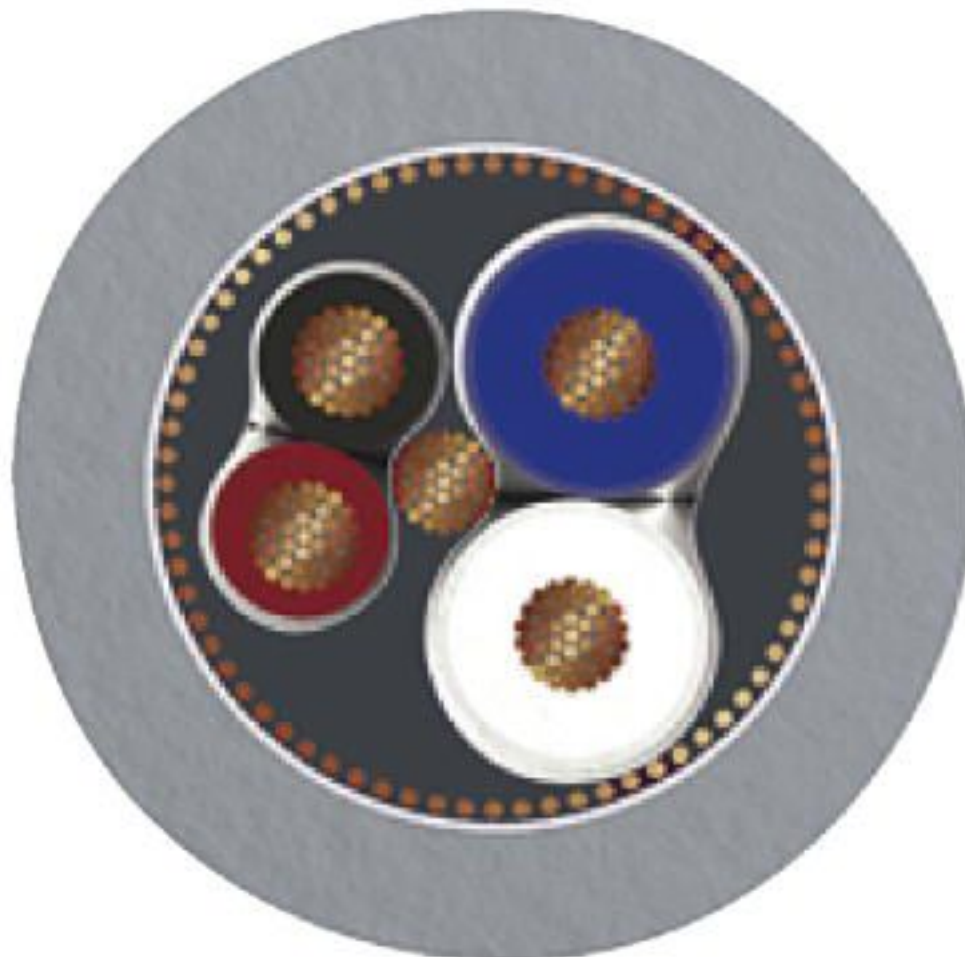
Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

## Bus system cable - SAC-5P-MS/ 5,0-924 SCO - 1405980

Cable cross section



CANopen<sup>®</sup>/DeviceNet<sup>™</sup>, PVC, gray [924]

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27060308 |
| eCl@ss 4.0    | 27060300 |
| eCl@ss 4.1    | 27060300 |
| eCl@ss 5.0    | 27061800 |
| eCl@ss 5.1    | 27061800 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27279218 |
| eCl@ss 8.0    | 27279218 |
| eCl@ss 9.0    | 27060308 |

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### Classifications

#### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC002599 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 26121616 |
| UNSPSC 7.0901 | 26121616 |
| UNSPSC 11     | 26121604 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 31251501 |
| UNSPSC 18.0   | 26121604 |
| UNSPSC 19.0   | 26121604 |
| UNSPSC 20.0   | 26121604 |
| UNSPSC 21.0   | 26121604 |

### Approvals

#### Approvals

#### Approvals

UL Listed / cUL Listed / EAC-RoHS / 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 | 125 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 | 125 V                                                                               |                                                                                                                                                       |               |

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### Approvals

|                                |     |
|--------------------------------|-----|
| Nominal current I <sub>N</sub> | 4 A |
|--------------------------------|-----|

|          |                                                                                   |                          |
|----------|-----------------------------------------------------------------------------------|--------------------------|
| EAC-RoHS |  | RU D-<br>DE.HB35.B.00387 |
|----------|-----------------------------------------------------------------------------------|--------------------------|

|     |                                                                                   |                          |
|-----|-----------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.BL08.B.00286 |
|-----|-----------------------------------------------------------------------------------|--------------------------|

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

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