# SAC-4P-M 8MS/ 2,0-950 - Bus system cable

1543249

https://www.phoenixcontact.com/us/products/1543249

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Bus system cable, INTERBUS, 4-position, PUR halogen-free, black RAL 9005, shielded, Plug straight M8, coding: A, on free cable end, cable length: 2 m

## Your advantages

- Power cable for actuator voltage
- System cable for supply voltage and bus signal

## Commercial data

| | |
|---|---|
| Item number | 1543249 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF02 |
| Product key | AF1BJB |
| GTIN | 4046356097406 |
| Weight per piece (including packing) | 93 g |
| Weight per piece (excluding packing) | 92.5 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Data cable preassembled |
| Application | Standard |
| Number of positions | 4 |
| No. of cable outlets | 1 |
| Shielded | yes |
| Coding | A |

### Insulation characteristics

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

## Interfaces

| | |
|---|---|
| Bus system | INTERBUS |
| Signal type/category | INTERBUS |

## Signaling

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

## Electrical properties

| | |
|---|---|
| Insulation resistance | ≥ 100 MΩ |
| Nominal voltage $U_N$ | 48 V AC |
| | 60 V DC |
| Nominal current $I_N$ | 4 A |
| Test voltage | 800 V |
| Transmission medium | Copper |

## Material specifications

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

## Connection data

### Connection assignment

| | |
|---|---|
| Contact \| Color (signal designation) \| Contact (optional) | 1 (Plug) \| RD (0.34 mm²) |
| | 3 (Plug) \| BU (0.34 mm²) |
| | 2 (Plug) \| YE (0.14 mm²) |
| | 4 (Plug) \| GN (0.14 mm²) |

## Connector

Connection 1

| | |
|---|---|
| Type | Plug straight M8 |
| Number of positions | 4 |
| Coding type | A (Standard) |

Connection 2

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

## Cable/line

| | |
|---|---|
| Cable length | 2 m |

INTERBUS [950]

| | |
|---|---|
| Cable weight | 41 kg/km |
| UL AWM Style | 20963 (80°C/30 V) |
| Number of positions | 4 |
| Shielded | yes |
| Cable type | INTERBUS [950] |
| Conductor structure | 2xAWG26/19+2xAWG22/19 |
| Conductor structure signal line | 19x 0.10 mm |
| AWG signal line | 26 |
| Conductor structure, voltage supply | 19x 0.15 mm |
| AWG power supply | 22 |
| Conductor cross-section | 2x 0.14 mm² (Signal line) |
| | 2x 0.34 mm² (Power supply) |
| | 1x 0.38 mm² (Drain wire) |
| Wire diameter incl. insulation | 0.97 mm (Signal line) |
| | 1.25 mm (Power supply) |
| External cable diameter | 5.20 mm ±0.2 mm |
| Outer sheath, material | PUR |
| External sheath, color | black RAL 9005 |
| Conductor material | Tin-plated Cu litz wires |
| Material wire insulation | PP |
| Single wire, color | red-blue, green-yellow |
| Thickness, insulation | 0.24 mm (Conductor insulation, signal line) |
| | 0.25 mm (Conductor insulation, voltage supply) |
| Thickness, outer sheath | approx. 0.75 mm |
| Twisted pairs | 2 cores to the pair |
| Type of pair shielding | Aluminum-lined polyester foil |
| Overall twist | 2 pairs around a drain wire in the center to the core |
| Optical shield covering | 85 % |
| Max. conductor resistance | ≤ 150 Ω/km (Signal line) |
| | ≤ 58 Ω/km (Power supply) |
| Insulation resistance | ≥ 20 MΩ*km |

| | |
|---|---|
| Wave impedance | 75 Ω ±10 Ω (Signal line) |
| | 55 Ω ±10 Ω (Power supply) |
| Nominal voltage, cable | ≤ 100 V |
| Test voltage Core/Core | 1000 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 1000.00 V (50 Hz, 1 min.) |
| Minimum bending radius, fixed installation | 5 x D |
| Minimum bending radius, flexible installation | 7.5 x D |
| Smallest bending radius, fixed installation | 26 mm |
| Smallest bending radius, movable installation | 39 mm |
| Dynamic load capacity (bending) | Max. bending cycles: 1000000, Bending radius: 110 mm, Traversing path: 6 m, Traversing rate: 4 m/s, Acceleration: 4 m/s² |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -40 °C ... 80 °C (Cable, flexible installation) |

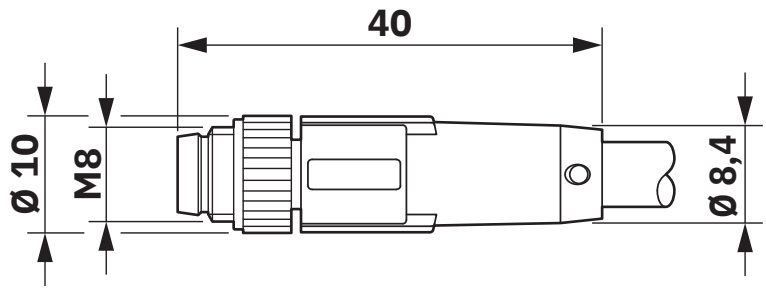
## Environmental and real-life conditions

### Ambient conditions

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

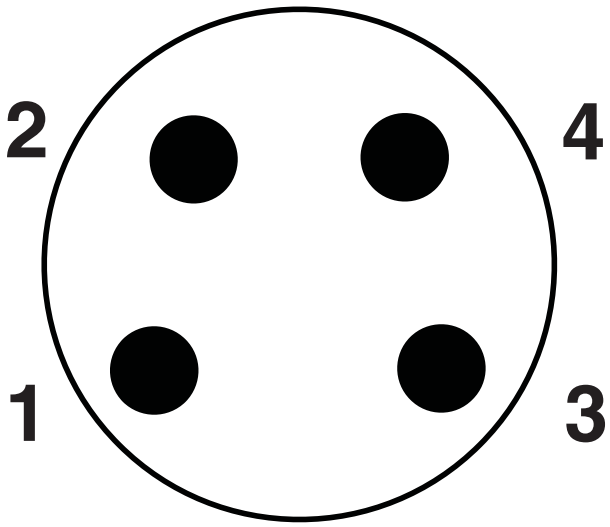
## Drawings

Dimensional drawing



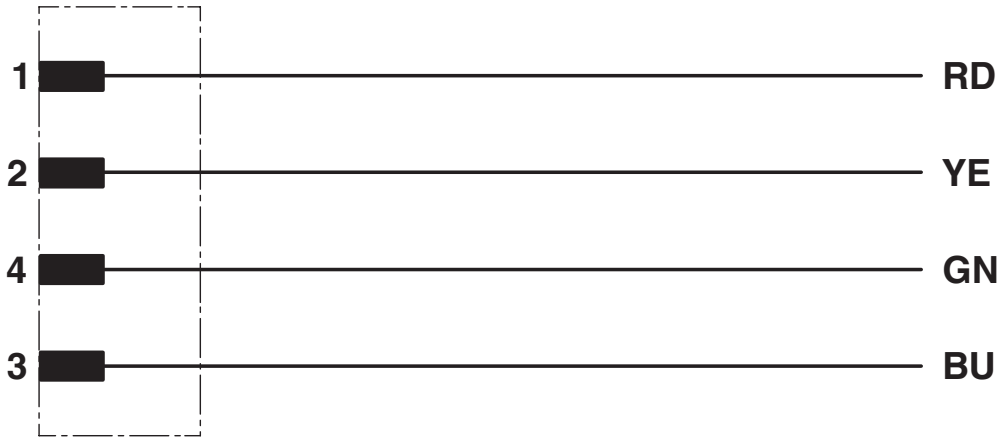

Plug M8 x 1, straight, shielded

Schematic diagram




Pin assignment M8 plug, 4-pos., view male side

Circuit diagram




Contact assignment of the M8 plug

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1543249

**EAC-RoHS**
Approval ID: RU D-DE.HB35.B.00387

**cULus Listed**
Approval ID: E221474

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27060307 |
| ECLASS-15.0 | 27060307 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002599 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 26121600 |

## 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% |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 4.69 kg CO2e |


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