

1551011

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Bus system cable, INTERBUS, 4-position, PUR halogen-free, black RAL 9005, shielded, Plug angled M8, coding: A, on Socket angled M8, cable length: 10 m

Your advantages

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

Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1551011       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF02          |
| Product key                          | AF1BJB        |
| GTIN                                 | 4046356151542 |
| Weight per piece (including packing) | 418.22 g      |
| Weight per piece (excluding packing) | 418.22 g      |
| Customs tariff number                | 85444290      |
| Country of origin                    | PL            |

# SAC-4P-M 8MR/10,0-950/M 8FR - Bus system cable



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## Technical data

### Product properties

|                      |                         |
|----------------------|-------------------------|
| Product type         | Data cable preassembled |
| Application          | Standard                |
| Sensor type          | INTERBUS                |
| 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 | $\geq 100 \text{ M}\Omega$ |
| 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                                          |
| 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                |

### Connection data

#### Connection assignment

|                                                           |                                                    |
|-----------------------------------------------------------|----------------------------------------------------|
| Contact   Color (signal designation)   Contact (optional) | 1 (Plug)   RD (0.34 mm <sup>2</sup> )   1 (Socket) |
|                                                           | 3 (Plug)   BU (0.34 mm <sup>2</sup> )   3 (Socket) |

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|  |                                       |
|--|---------------------------------------|
|  | 2 (Plug)   YE (0.14 mm²)   2 (Socket) |
|  | 4 (Plug)   GN (0.14 mm²)   4 (Socket) |

## Connector

### Connection 1

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

### Connection 2

|                     |                  |
|---------------------|------------------|
| Type                | Socket angled M8 |
| Number of positions | 4                |

## Cable/line

|              |      |
|--------------|------|
| Cable length | 10 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 %                                                  |

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|                                               |                                                                                                                             |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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,<br>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) |

# SAC-4P-M 8MR/10,0-950/M 8FR - Bus system cable

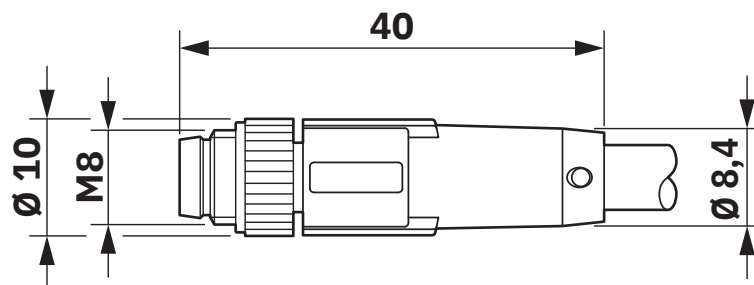


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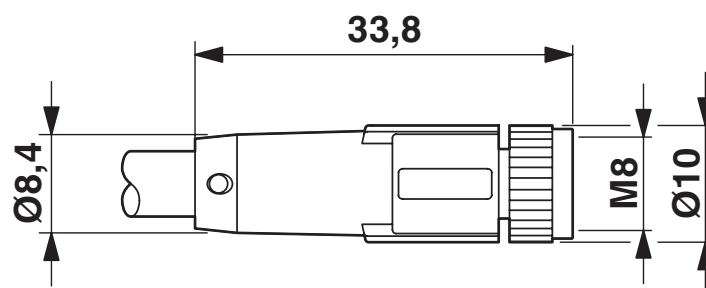
## Drawings

Dimensional drawing



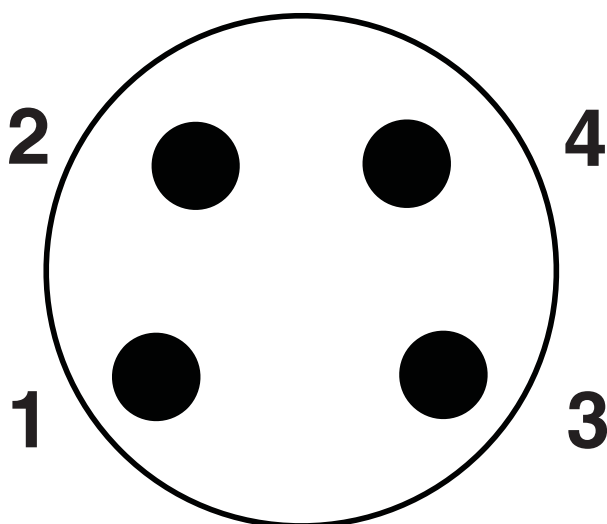
Plug M8 x 1, angled, shielded

Dimensional drawing



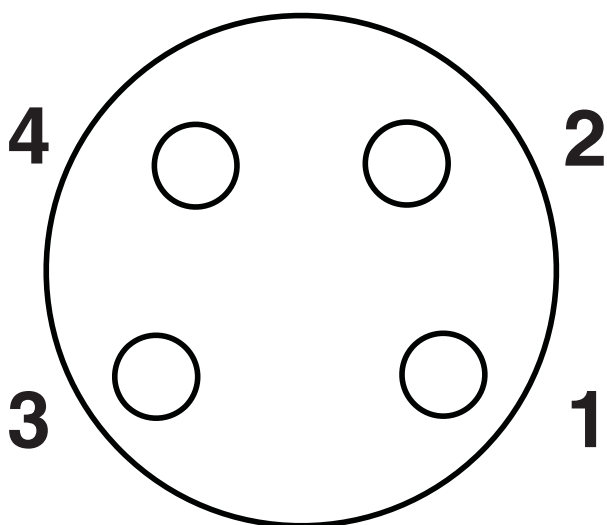
Socket M8 x 1, angled, shielded

Schematic diagram



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

Schematic diagram



Pin assignment M8 socket, 4-pos., view female side

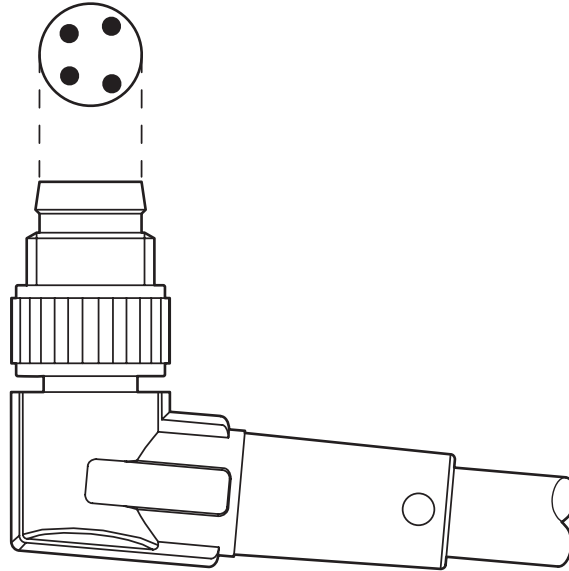
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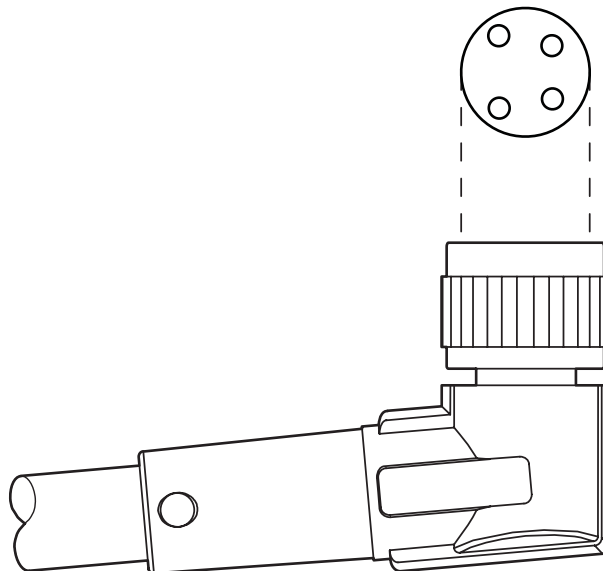


Schematic diagram



Layout of connector pin assignments

Schematic diagram

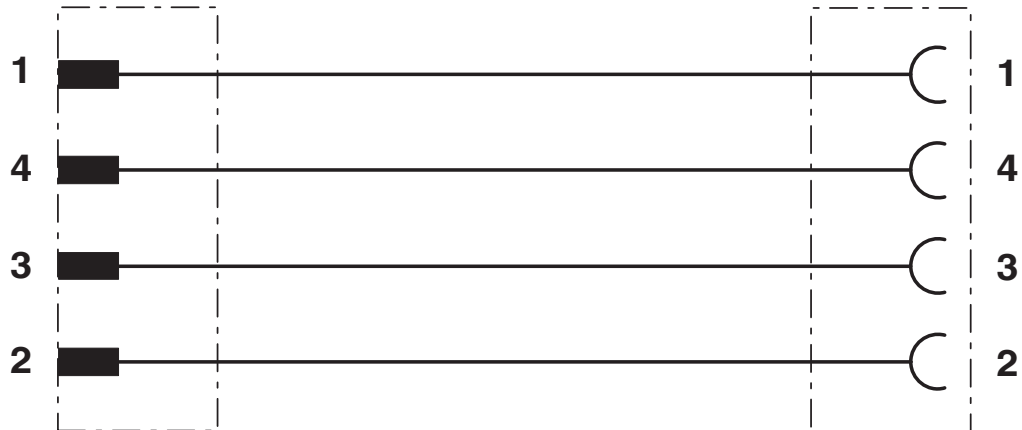


Layout of connector pin assignments

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Circuit diagram



Contact assignment of M8 plugs/sockets

Classifications

ECLASS

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

ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001855 |
|----------|----------|

UNSPSC

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

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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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