

# SAC-4P-M 8MR/ 1,0-950/M 8FR - Bus system cable



1550986

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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, coding: A, cable length: 1 m

## Your advantages

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

## Commercial data

Item number	1550986
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF02
Product key	AF1BJB
GTIN	4046356151511
Weight per piece (including packing)	66.6 g
Weight per piece (excluding packing)	66.6 g
Customs tariff number	85444290
Country of origin	PL

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## 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	$\geq 100 \text{ M}\Omega$
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)
	2 (Plug)   YE (0.14 mm <sup>2</sup> )   2 (Socket)

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4 (Plug) | GN (0.14 mm<sup>2</sup>) | 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
Coding type	A

## Cable/line

Cable length	1 m
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### 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 mm <sup>2</sup> (Signal line) 2x 0.34 mm <sup>2</sup> (Power supply) 1x 0.38 mm <sup>2</sup> (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, 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)

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## Drawings

Dimensional drawing



Plug M8 x 1, angled, shielded

Dimensional drawing



Socket M8 x 1, angled, shielded

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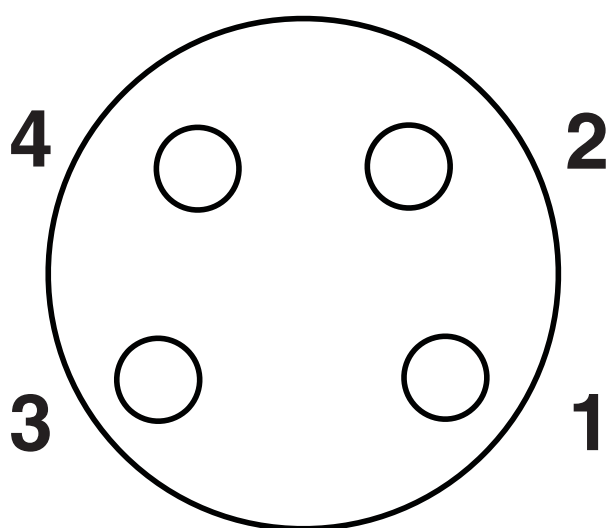
<https://www.phoenixcontact.com/us/products/1550986>

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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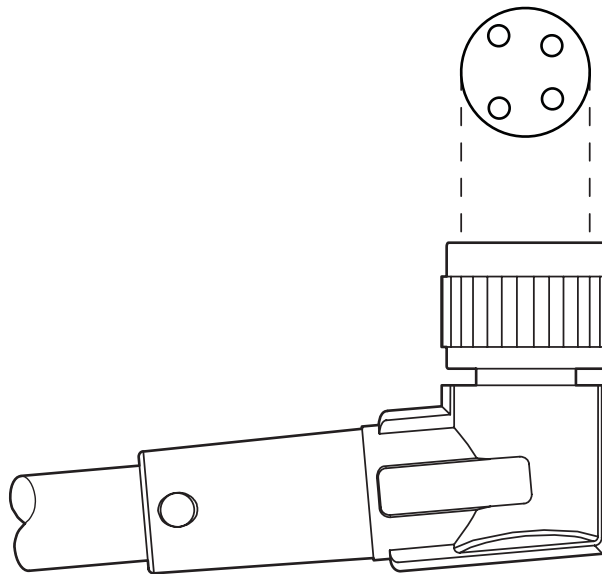


Schematic diagram



Layout of connector pin assignments

Schematic diagram



Layout of connector pin assignments

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Circuit diagram



Contact assignment of M8 plugs/sockets

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## Approvals

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**EAC-RoHS**

Approval ID: RU D-DE.HB35.B.00387



**cULus Listed**

Approval ID: E221474

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## Classifications

### ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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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### EF3.1 Climate Change

CO2e kg	1.957 kg CO2e
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