

# SAC-5P-M12MS/ 2,0-924 - Bus system cable



1405981

<https://www.phoenixcontact.com/us/products/1405981>

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Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, shielded, Plug straight M12, coding: A, on free cable end, cable length: 2 m, Connector unshielded

## Commercial data

Item number	1405981
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	BF15
Product key	BF1IHE
GTIN	4046356800471
Weight per piece (including packing)	137.3 g
Weight per piece (excluding packing)	130.3 g
Customs tariff number	85444290
Country of origin	US

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## Technical data

### Product properties

Product type	Data cable preassembled
Sensor type	CANopen <sup>®</sup>
Number of positions	5
Application	Standard, U.S. cables
No. of cable outlets	1
Shielded	yes
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Approvals

#### National Marine Electronics Association

Certificate	approved
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### Interfaces

Bus system	CANopen <sup>®</sup> /DeviceNet <sup>™</sup>
Signal type/category	CANopen <sup>®</sup> DeviceNet <sup>™</sup>

### Signaling

Status display	No
Status display present	No

### Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	4 A
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

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## Connector

### Connection 1

Type	Plug straight M12
Number of positions	5
Coding type	A (Standard)


### Connection 2

Type	free cable end
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## Cable/line

Cable length	2 m
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### CANopen<sup>®</sup>/DeviceNet<sup>™</sup>, PVC, gray [924]

Dimensional drawing	
Cable weight	64.51 kg/km
UL AWM Style	2464 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	CANopen <sup>®</sup> /DeviceNet <sup>™</sup> , PVC, gray [924]
Conductor structure	2xAWG22 (Signal) + 2xAWG22 (Power)
Signal runtime	4.46 ns/m
Conductor structure signal line	19x 0.15 mm
AWG signal line	22
Conductor cross section	2x 0.34 mm <sup>2</sup> (Signal line) 2x 0.34 mm <sup>2</sup> (Power supply)
Wire diameter incl. insulation	1.27 mm ±0.05 mm (Signal line) 2.24 mm ±0.13 mm (Power supply)
External cable diameter	6.9 mm ±0.13 mm
Outer sheath, material	PVC
External sheath, color	gray
Conductor material	Bare Cu litz wires
Material wire insulation	Foamed PE (Signal line) PVC (Power supply)
Single wire, color	red-black, blue-white
Twisted pairs	2 cores to the pair
Type of pair shielding	Plastic-coated aluminum foil, aluminum side inside

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Overall twist	2 pairs around a drain wire in the center to the core
Insulation resistance	≥ 59.38 Ω*m (Signal line)
	≥ 57.41 GΩ*km (Power supply)
Wave impedance	120 Ω ±12 Ω
Working capacitance	nom. 78.74 pF (per meter)
Minimum bending radius, flexible installation	15 x D
Smallest bending radius, movable installation	104 mm
Shield attenuation	0.95 dB (f = 125 kHz)
	1.64 dB (f = 500 kHz)
	2.3 dB (f = 1 MHz)
Flame resistance	FT4
Resistance to oil	yes
Other resistance	UV resistant
Special properties	UL standards PLTC and ITC
Ambient temperature (operation)	-30 °C ... 75 °C (cable, fixed installation)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

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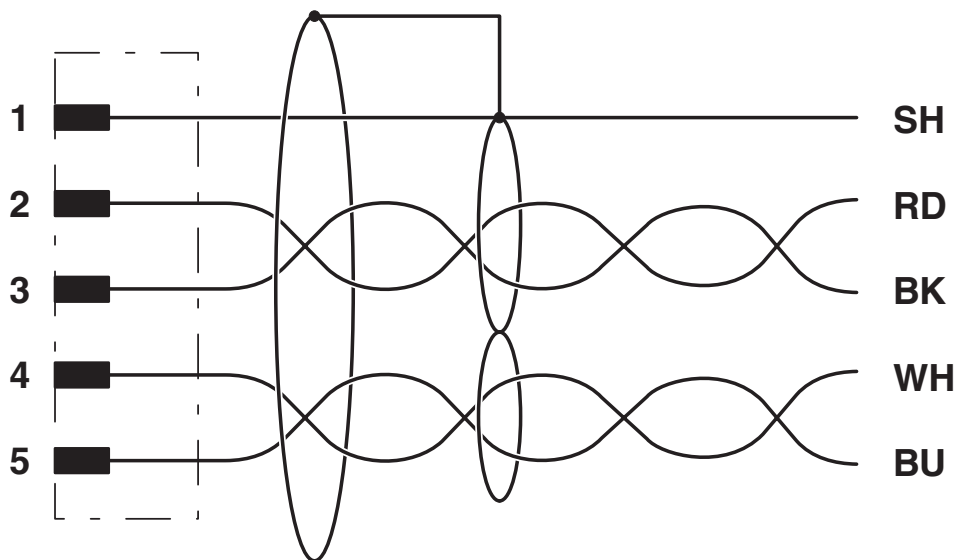


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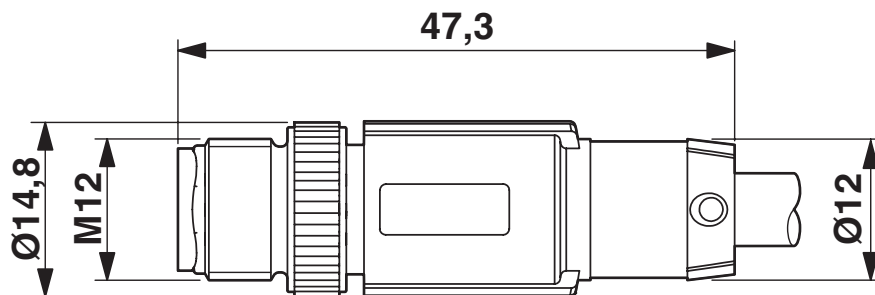
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## Drawings

Circuit diagram



Dimensional drawing



Plug, M12 x 1, straight

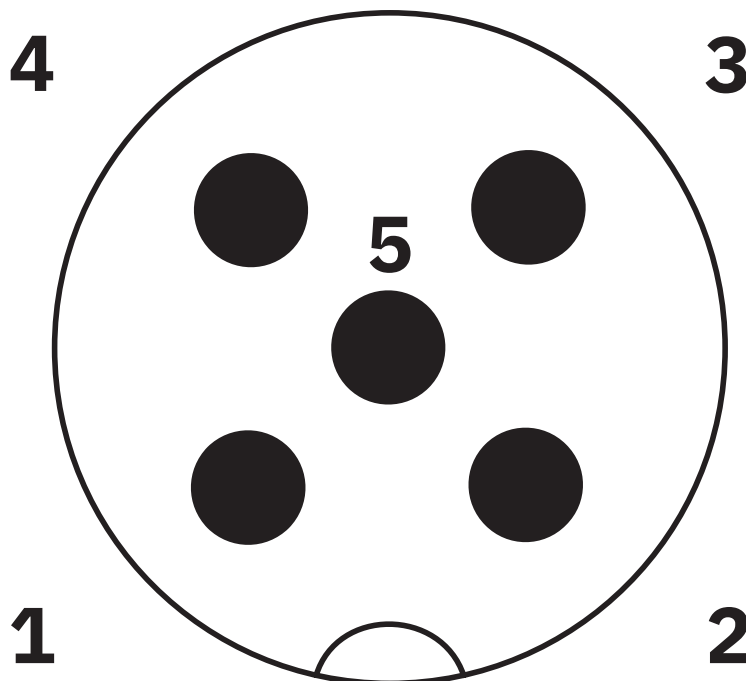
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Schematic diagram



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

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## Approvals

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 <b>UL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	125 V	4 A	-	-

 <b>cUL Listed</b> Approval ID: FILE E 221474				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	125 V	4 A	-	-

<b>cULus Listed</b>				
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## Classifications

### ECLASS

ECLASS-11.0	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307

### ETIM

ETIM 9.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

REACH SVHC	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA) 123-77-3
China RoHS	Environmentally Friendly Use Period = 50 years For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)