

# SAC-5P-M12MS/ 0,5-924/M12FR - Bus system cable



1405991

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Bus system cable, CANopen®, DeviceNet™, 5-position, PVC, gray, shielded, Plug straight M12, coding: A, on Socket angled M12, coding: A, cable length: 0.5 m, Connector unshielded

## Commercial data

Item number	1405991
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF15
Product key	AF1IHE
GTIN	4046356800372
Weight per piece (including packing)	52.8 g
Weight per piece (excluding packing)	52.8 g
Customs tariff number	85444290
Country of origin	US

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## Technical data

### Product properties

Product type	Data cable preassembled
Application	Standard, U.S. cables
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Interfaces

Bus system	CANopen®/DeviceNet™
Signal type/category	CANopen® DeviceNet™

### 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
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

### Connector

#### Connection 1

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

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## Connection 2

Type	Socket angled M12
Number of positions	5
Coding type	A (Standard)

## Cable/line

Cable length	0.5 m
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## CANopen®/DeviceNet™, 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®/DeviceNet™, 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 structure, voltage supply	19x 0.15 mm
AWG power supply	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	6.90 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
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)

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Wave impedance	120 $\Omega$ $\pm$ 12 $\Omega$
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)
	2.30 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) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)

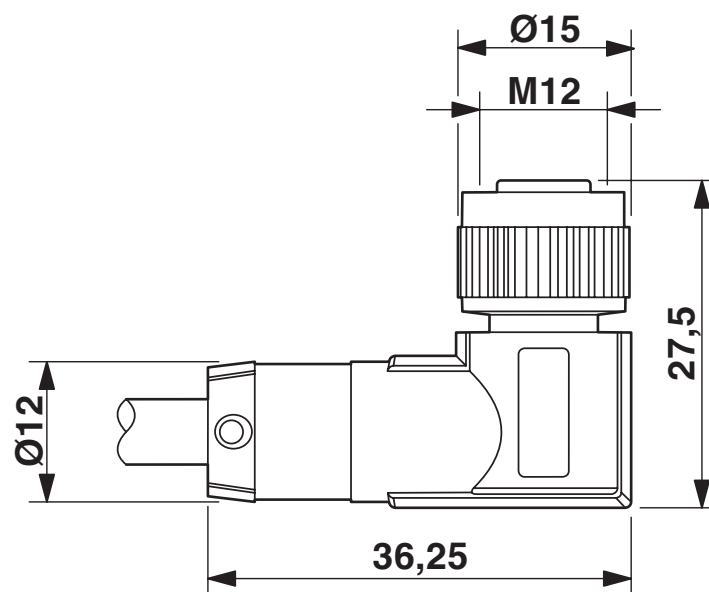
Drawings

Dimensional drawing



M12 x 1 plug, straight

Dimensional drawing



M12 x 1 socket, angled

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Schematic diagram



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

Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

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Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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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 $\text{mm}^2$
keine				
	125 V	4 A	-	-

 <b>cUL Listed</b> Approval ID: FILE E 221474				
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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.)	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA)(CAS: 123-77-3)
	bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof(CAS: 26040-51-7)
	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: 3147-75-9)
SCIP	e2b4886f-8ef5-47bc-80d8-fbed53f129a8

### EF3.1 Climate Change

CO2e kg	0.552 kg CO2e
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