

# SAC-5P-2,0-PVC/M12FS B-L - Sensor/actuator cable



1431704

<https://www.phoenixcontact.com/us/products/1431704>

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Sensor/actuator cable, 5-position, PVC, black RAL 9005, free cable end, on Socket straight M12, coding: A, cable length: 2 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components

## Commercial data

Item number	1431704
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	BF03
Product key	AF1CDA
GTIN	4046356506403
Weight per piece (including packing)	115 g
Weight per piece (excluding packing)	111.8 g
Customs tariff number	85444290
Country of origin	CN

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## Technical data

### Product properties

Product type	Sensor/actuator cable
Application	Standard
Number of positions	5
No. of cable outlets	1
Shielded	no
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### 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

### Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	60 V
Nominal current $I_N$	4 A

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
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### Signaling

Status display	no
Status display present	no

### Connector

#### Connection 1

Type	free cable end
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#### Connection 2

Type	Socket straight M12
Number of positions	5
Coding type	A

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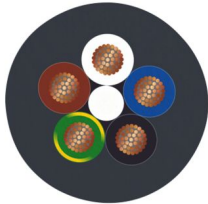
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## Cable/line

Cable length	2 m
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### PVC black [PVC]

Dimensional drawing	
Cable weight	51 kg/km
UL AWM Style	2464 / 1729 (80°C/300 V)
Number of positions	5
Shielded	no
Cable type	PVC black [PVC]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross-section	5x 0.34 mm <sup>2</sup> (Signal line)
Wire diameter incl. insulation	1.45 mm ±0.02 mm
External cable diameter	5.90 mm ±0.15 mm
Outer sheath, material	PVC
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, white, blue, black, green-yellow
Thickness, insulation	≥ 0.23 mm (Core insulation)
Thickness, outer sheath	≥ 0.76 mm
Overall twist	5 wires around filler to the core
Max. conductor resistance	max. 58 Ω/km (at 20 °C)
Insulation resistance	≥ 200 MΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	30 mm
Smallest bending radius, movable installation	59 mm
Flame resistance	As per UL-Style 2464 according to UL 758/1581 FT1
Resistance to oil	according to DIN EN 60811-2-1, 168 h at 90 °C
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -25 °C ... 80 °C (Cable, flexible installation)

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## 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)
Ambient temperature (operation) (Cable, fixed installation)	-40 °C ... 80 °C (cable, fixed installation)
Ambient temperature (operation) (Cable, flexible installation)	-25 °C ... 80 °C (Cable, flexible installation)

## Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

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## Drawings

Dimensional drawing



M12 x 1 socket, straight

Schematic diagram



Pin assignment M12 socket, 5-pos., B-coded, female side

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Circuit diagram



Contact assignment of the M12 sockets

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## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

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## Environmental product compliance

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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