

# SAC-5P-P12MR/ 0,3-PUR/P12FS - Sensor/actuator cable



1396499

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Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, Plug angled M12 Push Pull, coding: A, on Socket straight M12 Push Pull, coding: A, cable length: 0.3 m

## Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Save time, thanks to installation with push-pull fast locking

## Commercial data

Item number	1396499
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF06
Product key	AF1CDC
GTIN	4063151815394
Weight per piece (including packing)	39.5 g
Weight per piece (excluding packing)	40.17 g
Customs tariff number	85444290
Country of origin	PL

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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

Material	PK (Pin contact carrier) PA (Female connector contact carrier)
Flammability rating according to UL 94	V0
Seal material	FKM
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Material for screw connection	Brass, nickel-plated

### 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

### 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	Plug angled M12 Push Pull
Number of positions	5
Locking type	Push Pull

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Coding type	A
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## Connection 2

Type	Socket straight M12 Push Pull
Number of positions	5
Locking type	Push Pull
Coding type	A

## Cable/line

Cable length	0.3 m
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## PUR halogen-free black [PUR]

Dimensional drawing	
Cable weight	33 kg/km
UL AWM Style	20549
Number of positions	5
Shielded	no
Cable type	PUR halogen-free black [PUR]
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	1.27 mm 0.05 mm (Signal line)
External cable diameter	4.55 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black, green-yellow
Thickness, insulation	approx. 0.50 mm
Max. conductor resistance	max. 58 Ω/km (at 20 °C)
Insulation resistance	≥ 16 GΩ*km (at 20 °C)
Nominal voltage, cable	300 V
Test voltage	3000 V
Smallest bending radius, fixed installation	23 mm
Smallest bending radius, movable installation	46 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 46 mm, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup>

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Dynamic load capacity (torsion)	Torsion: $\pm 180$ °/m, Torsion cycles: $\geq 5000000$ , Torsional frequency: 35 cycles/min.
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 758/1581 FT2 DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents hydrolysis and microbe resistant Resistant to salt water partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Special properties	Flexible cable conduit capable Silicone-free Free of substances which would hinder coating with paint or varnish flexible
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -25 °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 ... 85 °C (Plug / socket)

## Standards and regulations

Standard designation	M12-Push-Pull
Standards/specifications	IEC 61076-2-010

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## Drawings

Dimensional drawing



M12 push-pull male connector, angled

Dimensional drawing



M12 push-pull female connector, straight

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Schematic diagram



Pin assignment M12 male connector

Schematic diagram



Pin assignment socket M 12

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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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**cULus Listed**

Approval ID: E221474



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## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### ETIM

ETIM 10.0	EC001855
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### 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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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)