# SAC-5P-10,0-PUR/M12FR SH - Sensor/actuator cable



#### 1500761

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Sensor/actuator cable, 5-position, PUR halogen-free, black-gray RAL 7021, shielded (Advanced Shielding Technology), free cable end, on Socket angled M12, coding: A, cable length: 10 m

## Your advantages

- · Easy and safe: 100 % electrically tested plug-in components
- · Reliable signal transmission 360° shielding in environments with electromagnetic interference

# Commercial data

Item number	1500761	
Packing unit	1 pc	
Minimum order quantity	1 pc	
Sales key	AF1CKA	
Product key	AF1CKA	
Catalog page	Page 204 (C-2-2019)	
GTIN	4017918610784	
Weight per piece (including packing)	431.9 g	
Weight per piece (excluding packing)	443.9 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	yes		
Coding	A		
Insulation characteristics			
Overvoltage category	11		
Degree of pollution	3		

#### Material specifications

Flammability rating according to UL 94	НВ	
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	

#### **Electrical properties**

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

## Mechanical properties

I	Mechanical data					
	Insertion/withdrawal cycles	≥ 100				
Sig	Signaling					
	Status display	no				
	Status display present	no				
Co	Connection data					
(	Conductor connection					
	Tightening torque	0.4 Nm (M12 connector)				

#### Connector

Connection 1



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Туре	free cable end				
Connection 2					
Туре	Socket angled M12				
Number of positions	5				
Coding type	A				
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#### Cable/line

Cable length 10 m	10 m

PUR halogen-free black [PUR]

Dimensional drawing



Cable weight	43 kg/km		
UL AWM Style	20549 / 10493 (80°C/300 V)		
Number of positions	5		
Shielded	yes		
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 ±0.02 mm (Signal line)		
External cable diameter	5.25 mm ±0.2 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, gray		
Thickness, insulation	≥ 0.21 mm		
Thickness, outer sheath	approx. 0.50 mm		
Overall twist	5 wires around filler to the core		
Optical shield covering	80 %		
Max. conductor resistance	max. 57 Ω/km (at 20 °C)		
Insulation resistance	70 GΩ*km (at 20 °C)		
Nominal voltage, cable	300 V (at 20 °C)		
Test voltage Core/Core	3000 V (at 20 °C)		
Smallest bending radius, fixed installation	26 mm		
Smallest bending radius, movable installation	52 mm (up to +60 °C)		
Dynamic load capacity (bending) Max. bending cycles: 10000000, Bending radius: 52 mm,			



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	Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s <sup>2</sup>		
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥2000000, Torsional frequency: 35 cycles/min.		
Halogen-free	in accordance with DIN VDE 0472 part 815		
	in accordance with DIN EN 50267-2-1		
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)		
	abrasion-resistant		
Special properties	Flexible cable conduit capable		
	Silicone-free		
	Free of substances which would hinder coating with paint or varnish		
	Low adhesion surface		
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 90 °C (Plug / socket)	
Ambient temperature (operation) (Cable, fixed installation)	-25 °C 80 °C (cable, fixed installation)	
Ambient temperature (operation) (Cable, flexible installation)	-5 °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, angled, shielded



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

Circuit diagram



Contact assignment of the M12 socket

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# Approvals

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<u>©</u>	UL Listed Approval ID: FILE E 221474				
		Nominal voltage U <sub>N</sub>	Nominal current $I_N$	Cross section AWG	Cross section mm <sup>2</sup>
		125 V	4 A	-	-
	<b>CUL Listed</b> Approval ID: FILE E 221474	i			
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		125 V	4 A	-	-





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# Classifications

#### ECLASS

	ECLASS-13.0	27060311	
ETIM			
	ETIM 9.0	EC001855	
UNSPSC			
	UNSPSC 21.0	26121600	



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# Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
EU REACH SVHC REACH candidate substance (CAS No.)	No substance above 0.1 wt%
	No substance above 0.1 wt%

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