

# SAC-4P-M12MSB/0,2-BF145/FRB SH - Sensor/actuator cable



1010673

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Sensor/actuator cable, 4-position, POC halogen-free, irradiated, black RAL 9005, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 0.2 m

as illustrated, but b-coded

## Commercial data

Item number	1010673
Packing unit	1 pc
Minimum order quantity	50 pc
Product key	AF1CJA
GTIN	4055626484891
Weight per piece (including packing)	47.5 g
Weight per piece (excluding packing)	47.5 g
Country of origin	PL

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## Technical data

### Product properties

Product type	Sensor/actuator cable
Application	Standard
Number of positions	4
No. of cable outlets	1

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### 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

### Electrical properties

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 straight M12
Number of positions	4
Coding type	B

#### Connection 2

Type	Socket straight M12
Number of positions	4
Coding type	B

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## Cable/line

Cable length	0.2 m
POC irradiated halogen-free black [BF 145]	
Cable weight	86 kg/km
Number of positions	5
Shielded	yes
Cable type	POC irradiated halogen-free black [BF 145]
AWG signal line	20
Conductor cross-section	5x 0.5 mm <sup>2</sup>
Wire diameter incl. insulation	1.9 mm
External cable diameter	7.30 mm
Outer sheath, material	POC
External sheath, color	black RAL 9005
Conductor material	Tin-plated Cu litz wires
Material wire insulation	POC
Single wire, color	black 1, black 2, black 3, black 4, black 5
Overall twist	5 wires around filler to the core
Nominal voltage, cable	300 V
Test voltage Core/Core	3500 V
Test voltage Core/Shield	2500.00 V
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	12 x D
Smallest bending radius, fixed installation	30 mm
Smallest bending radius, movable installation	88 mm
Dynamic load capacity (bending)	Max. bending cycles: 2000000, Bending radius: 10 x D, Traversing path: 5 m, Traversing rate: 4 m/s, Acceleration: 5 m/s <sup>2</sup>
Halogen-free	according to IEC 60754-1 in accordance with DIN EN 50267-2-1
Flame resistance	IEC 60332-1 According to DIN EN 50265-2-1
Concentration of fumes	in accordance with IEC 61034 EN 50268-2
Other resistance	Good resistance to aggressive media
Special properties	Irradiated
Ambient temperature (operation)	-55 °C ... 145 °C (cable, fixed installation) -35 °C ... 120 °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)

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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



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, angled, shielded

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Schematic diagram



Pin assignment M12 plug, 4-pos., A-coded, view plug side

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Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### 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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