

# SAC-4P-M12MS/ 4,0-652/M12FS - Sensor/actuator cable



1432051

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Sensor/actuator cable, 4-position, TPE halogen-free, welding sputter-resistant, highly flexible, yellow, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 4 m

## Commercial data

Item number	1432051
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF03
Product key	AF1ICB
GTIN	4055626432328
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Country of origin	US

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## Technical data

### Product properties

Product type	Sensor/actuator cable
Application	Standard, U.S. cables
Number of positions	4
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
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, weld slag-resistant coating
Outer sheath, material	TPE

### Electrical properties

Insulation resistance	$\geq 10 \text{ M}\Omega$
Nominal voltage $U_N$	250 V AC
	250 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

### Connection data

#### Conductor connection

Tightening torque	0.4 Nm (M12 connector)
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### Connector

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## Connection 1

Type	Plug straight M12
Number of positions	4
Coding type	A

## Connection 2

Type	Socket straight M12
Number of positions	4
Coding type	A

## Cable/line

Cable length	4 m
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TPE, highly flexible, yellow [652]

Dimensional drawing	
UL AWM Style	20327 (105 °C / 300 V)
Number of positions	4
Shielded	no
Cable type	TPE, highly flexible, yellow [652]
Conductor structure signal line	19x 0.03 in.
AWG signal line	22
Conductor cross-section	4x 0.34 mm <sup>2</sup> (Signal line)
Wire diameter incl. insulation	0.05 in. ±0.02 mm
External cable diameter	5.33 mm ±0.13 mm
Outer sheath, material	TPE
External sheath, color	yellow
Conductor material	Bare Cu litz wires
Material wire insulation	SRPVC
Single wire, color	brown, white, blue, black
Overall twist	4 wires, twisted
Nominal voltage, cable	300 V
Test voltage	Spark test
Minimum bending radius, flexible installation	8 x D
Smallest bending radius, fixed installation	10 x D
Smallest bending radius, movable installation	43 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 8 x D
Dynamic load capacity (torsion)	Torsion: ±360 °/m, Torsion cycles: 10000000

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Halogen-free	yes
Flame resistance	in acc. with UL FT4
Other resistance	oil resistant (to UL 2256)
	welding sputter-resistant
	sunlight resistant (720 h test per UL 2256)
Ambient temperature (operation)	-5 °C ... 105 °C (Cable, flexible installation)
	-30 °C ... 105 °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)
Ambient temperature (operation) (Cable, fixed installation)	-30 °C ... 105 °C (cable, fixed installation)
Ambient temperature (operation) (Cable, flexible installation)	-5 °C ... 105 °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

Dimensional drawing



M12 x 1 socket, straight

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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

### ETIM

ETIM 10.0	EC001855
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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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