

SAC-4P-M12MS/3,0-600 FB - Sensor/actuator cable



1404003

<https://www.phoenixcontact.com/us/products/1404003>

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Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Contamination can be detected quickly – thanks to the light color

Commercial data

Item number	1404003
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF03
Product key	AF1CCA
GTIN	4046356677493
Weight per piece (including packing)	83.4 g
Weight per piece (excluding packing)	83.4 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Sensor/actuator cable
Application	Food processing industry
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Material of grip body	PP
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material for screw connection	Polypropylene

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	250 V AC
	250 V DC
Nominal current I_N	4 A

Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100

Signaling

Status display	no
Status display present	no

Connection data

Conductor connection	
Tightening torque	0.4 Nm (M12 connector)

Connector

Connection 1	
Type	Plug straight M12
Number of positions	4

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Coding type

A

Connection 2

Type

free cable end

Cable/line

Cable length	3 m
Dimensional drawing	
Cable weight	30 kg/km
Number of positions	4
Shielded	no
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm ² (Signal line)
Wire diameter incl. insulation	1.27 mm ±0.02 mm (Signal line)
External cable diameter	4.70 mm ±0.15 mm
Outer sheath, material	PP-EPDM
External sheath, color	gray RAL 7035
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, white, blue, black
Thickness, insulation	≥ 0.21 mm
Thickness, outer sheath	approx. 0.80 mm
Overall twist	4 wires, twisted
Length of twist, overall twist	48 mm
Max. conductor resistance	approx. 58 Ω/km
Insulation resistance	≥ 1 GΩ*km
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	24 mm
Smallest bending radius, movable installation	47 mm
Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ²
Dynamic load capacity (torsion)	Torsion: ±270 °/m, Torsion cycles: ≥4000000, Torsional frequency: ≤25 Torsion cycles/min

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Halogen-free	in accordance with DIN VDE 0472 part 815
Other resistance	Resistant to cold bending and cold impacts (according to DIN EN 60811-1-4 (-40 °C))
Special properties	partly suitable for use with drag chain
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation) -25 °C ... 105 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65 IP67 IP68 IP69K
Ambient temperature (operation) (male connector/female connector)	-40 °C ... 105 °C (Plug / socket)

Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101
Standard designation	Material conformance
Standards/specifications	FDA 21 CFR 177.2600

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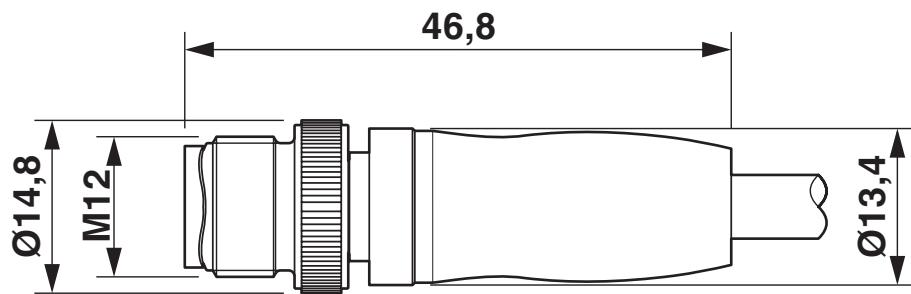
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Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

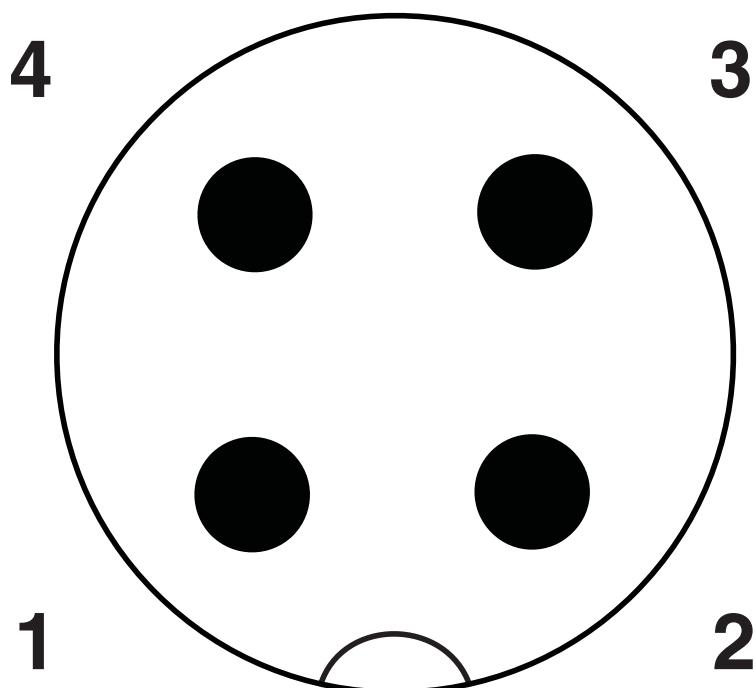
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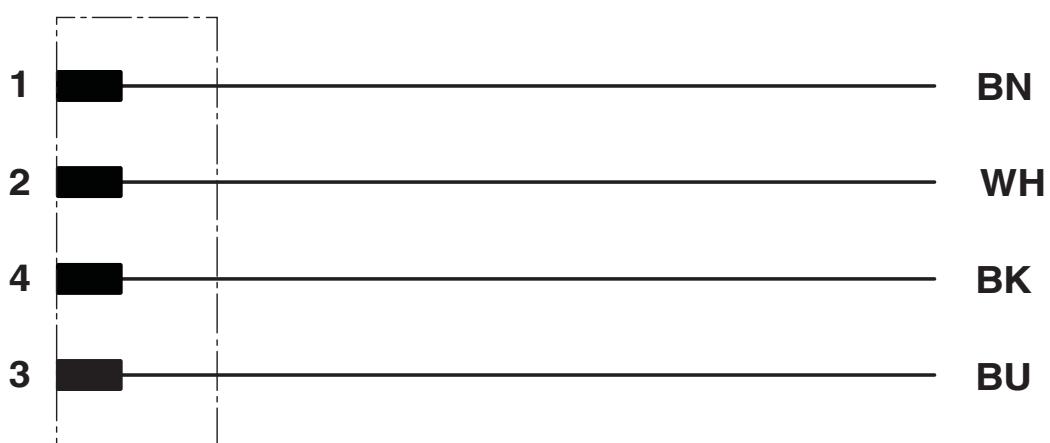


Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug

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Approvals

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EAC-RoHS

Approval ID: RU D-DE.HB35.B.00387

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Classifications

ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

ETIM

ETIM 9.0	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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EF3.0 Climate Change

CO2e kg	0.79 kg CO2e
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Phoenix Contact USA

586 Fulling Mill Road

Middletown, PA 17057, United States

(+717) 944-1300

info@phoenixcon.com