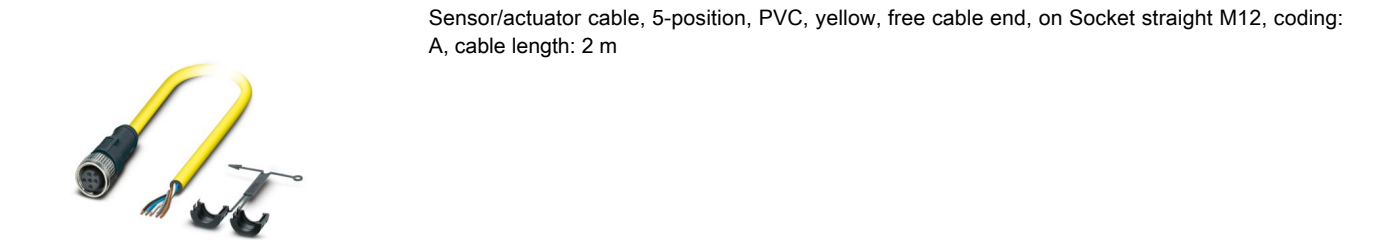


SAC-HZ-5P- 2,0-542/M12FS BK - Sensor/actuator cable

1409637
<https://www.phoenixcontact.com/gb/products/1409637>

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Commercial data

Item number	1409637
Packing unit	1 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	AF1IGC
Product key	AF1IGC
GTIN	4055626018805
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	US

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Technical data

Notes

General	These cable assemblies are UL/cUL listed for use in Class I, Division 2 (CID2) hazardous locations.
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Product properties

Product type	Sensor/actuator cable
Application	U.S. cables for hazardous locations
Number of positions	5
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
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
Outer sheath, material	PVC

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

Signaling

Status display	no
Status display present	No

Connection data

Conductor connection

Tightening torque	0.4 Nm (M12 connector)
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Connector

Connection 1

Type	free cable end
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Connection 2

Type	Socket straight M12
Number of positions	5
Coding type	A

Cable/line

Cable length	2 m
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PVC yellow 105 °C [542]

Dimensional drawing	
Cable weight	43 kg/km
UL AWM Style	2517 (105 °C / 300 V)
Number of positions	5
Shielded	no
Cable type	PVC yellow 105 °C [542]
Conductor structure signal line	7x 0.25 mm
AWG signal line	22
Wire diameter incl. insulation	1.27 mm ±0.03 mm
External cable diameter	5.40 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	yellow
Conductor material	Tin-plated Cu litz wires
Material, filler	PP
Material wire insulation	PVC
Single wire, color	brown, blue, black, white, gray
Overall twist	5 wires around filler to the core
Max. conductor resistance	max. 50.5 Ω/km (20 °C)
Insulation resistance	≥ (550 M Ohms/m @ 500V)
Nominal voltage, cable	300 V
Minimum bending radius, flexible installation	8 x D
Smallest bending radius, movable installation	44 mm
Flame resistance	FT4
Other resistance	UV resistant
Special properties	UL standards PLTC and ITC
Ambient temperature (operation)	-30 °C ... 105 °C (cable, fixed installation) -5 °C ... 105 °C (Cable, flexible installation)

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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

Approvals

Conformity/Approvals

UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D
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Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

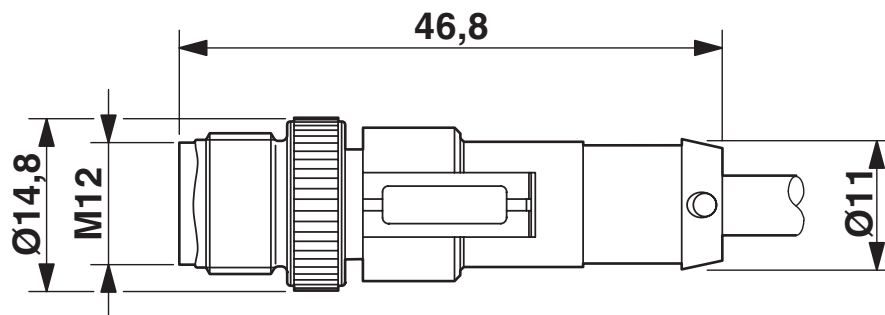
SAC-HZ-5P- 2,0-542/M12FS BK - Sensor/actuator cable

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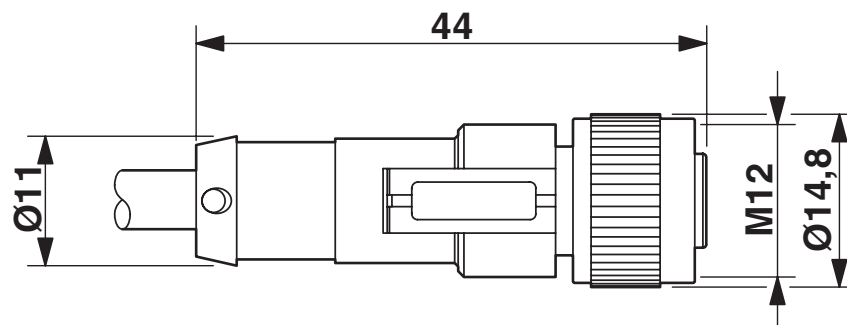
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight

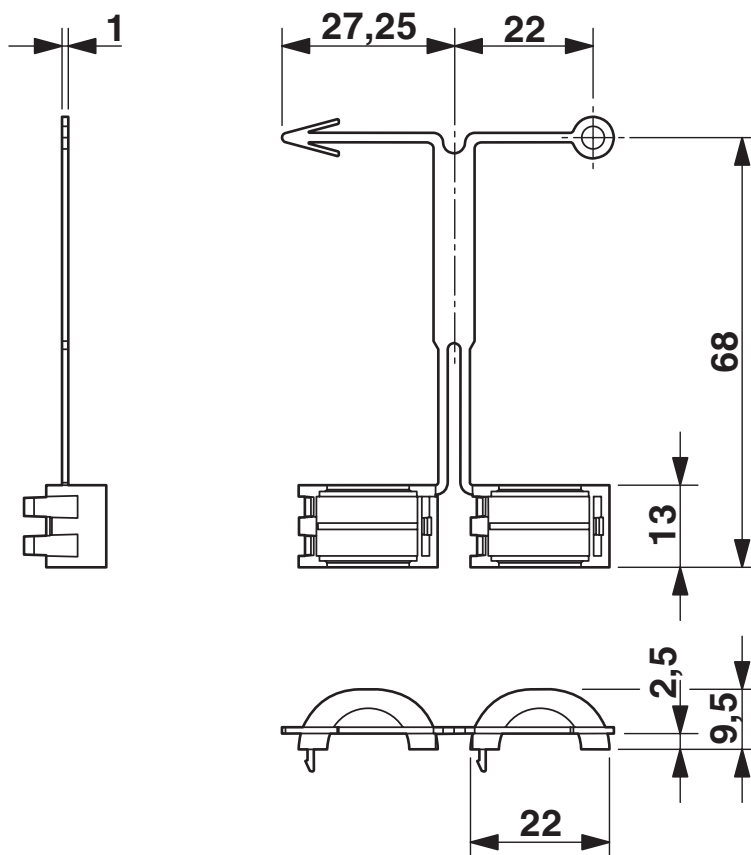
SAC-HZ-5P- 2,0-542/M12FS BK - Sensor/actuator cable



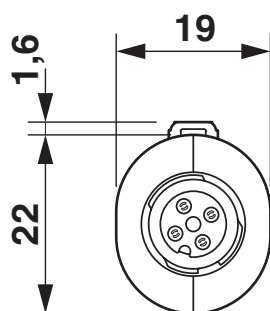
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Dimensional drawing

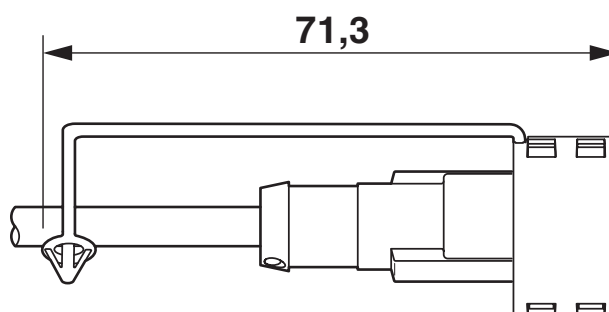


EXCLIP socket



EXCLIP mounted plug

Dimensional drawing

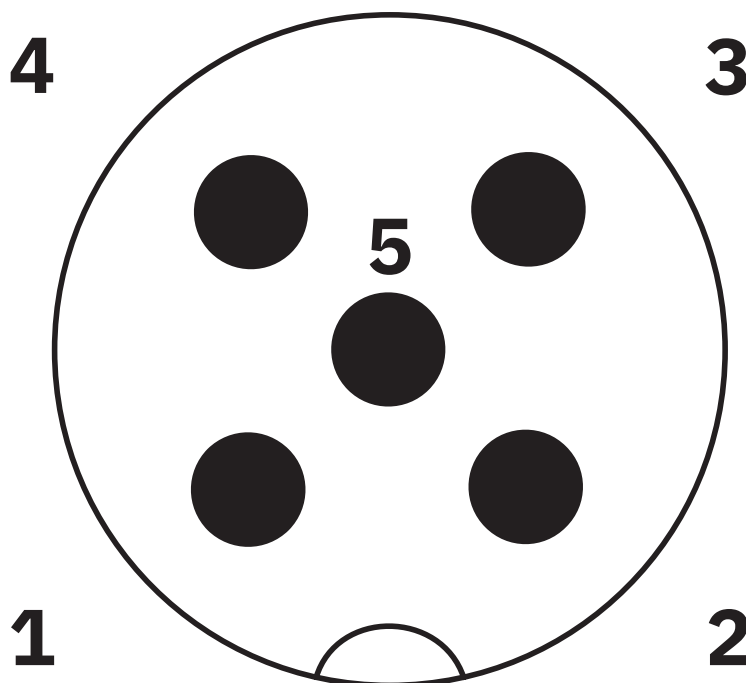


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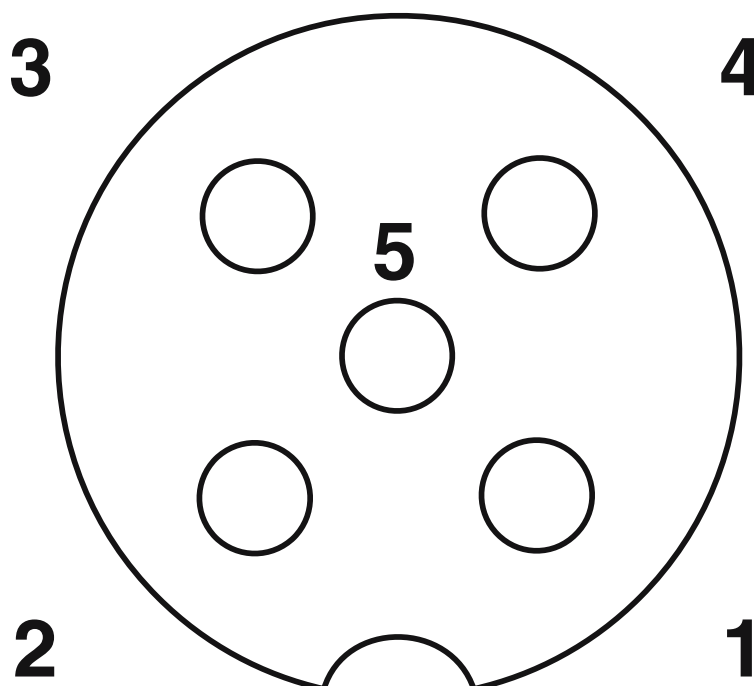
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Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

Schematic diagram



Pin assignment M12 socket, 5-pos., B-coded, female side

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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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cUL Listed

Approval ID: FILE E 359524

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	150 V	4 A	-	-



UL Listed

Approval ID: FILE E 359524

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	150 V	4 A	-	-

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	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
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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