

SAC-HZ-4P-M12MS/1,5-542/M12FSSH -
Sensor/actuator cable

1409538
<https://www.phoenixcontact.com/us/products/1409538>

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Sensor/actuator cable, 4-position, PVC, yellow, shielded, Plug straight M12, coding: A, on
Socket straight M12, coding: A, cable length: 1.5 m



Commercial data

Item number	1409538
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF13
Product key	BF1IGB
GTIN	4055626017945
Weight per piece (including packing)	123 g
Weight per piece (excluding packing)	123 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	4
No. of cable outlets	1
Shielded	yes
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

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Connection 1

Type	Plug straight M12
Number of positions	4
Coding type	A

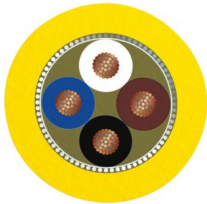
Connection 2

Type	Socket straight M12
Number of positions	4
Coding type	A

Cable/line

Cable length	1.5 m
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PVC yellow 105 °C [542]

Dimensional drawing	
Cable weight	48 kg/km
UL AWM Style	2517 (105 °C / 300 V)
Number of positions	4
Shielded	yes
Cable type	PVC yellow 105 °C [542]
Conductor structure signal line	30x 1.30 mm
AWG signal line	22
Wire diameter incl. insulation	1.27 mm ±0.03 mm
External cable diameter	5.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	yellow
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PVC
Single wire, color	brown, blue, black, white
Overall twist	4 wires, twisted
Optical shield covering	85 %
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	12 x D
Smallest bending radius, movable installation	66 mm

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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)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
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

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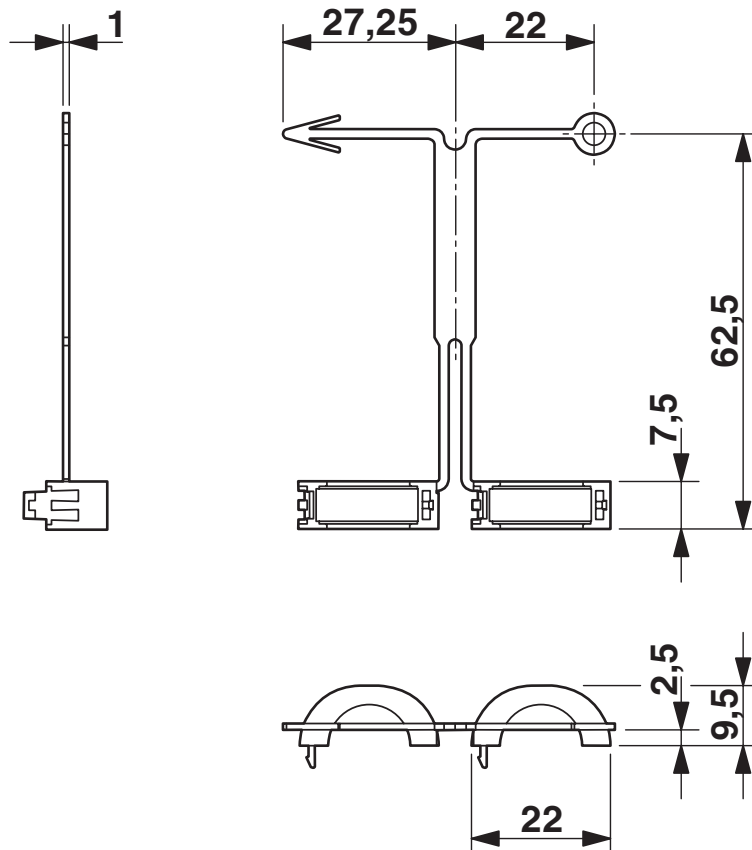


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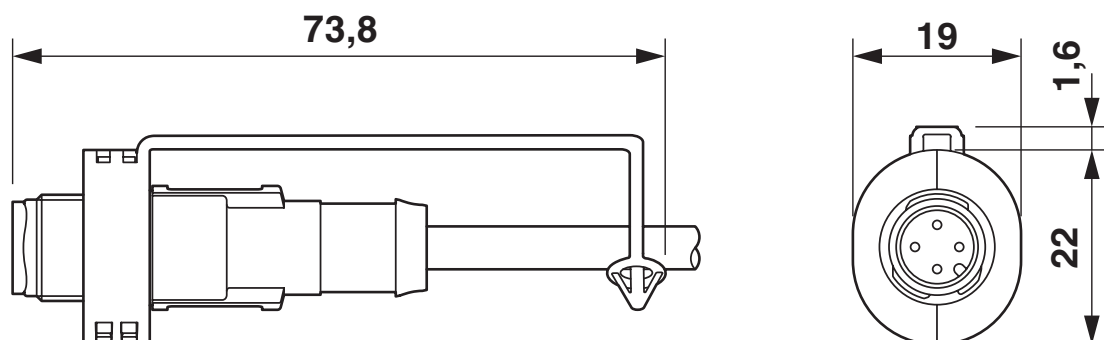
Drawings

Dimensional drawing



EXCLIP plug

Dimensional drawing



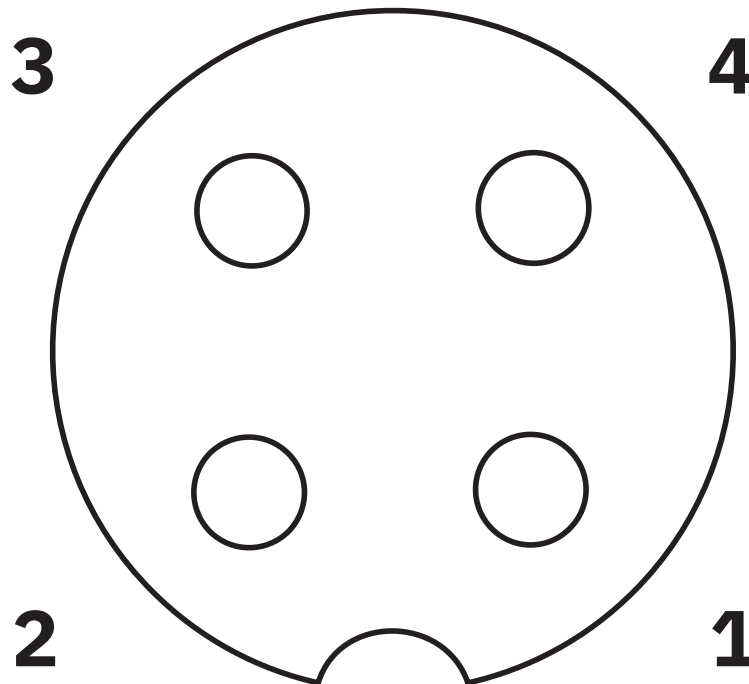
EXCLIP mounted plug

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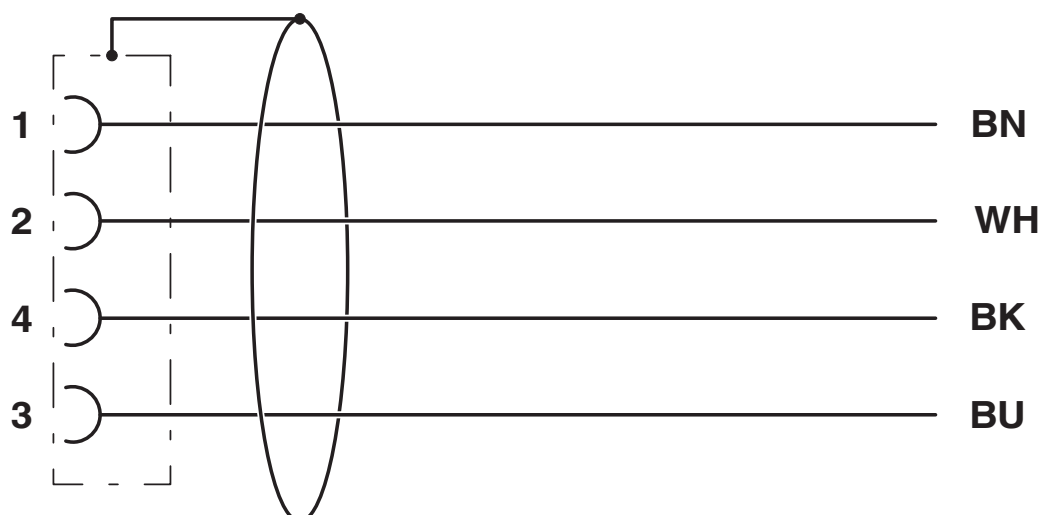
<https://www.phoenixcontact.com/us/products/1409538>

Schematic diagram



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

Circuit diagram



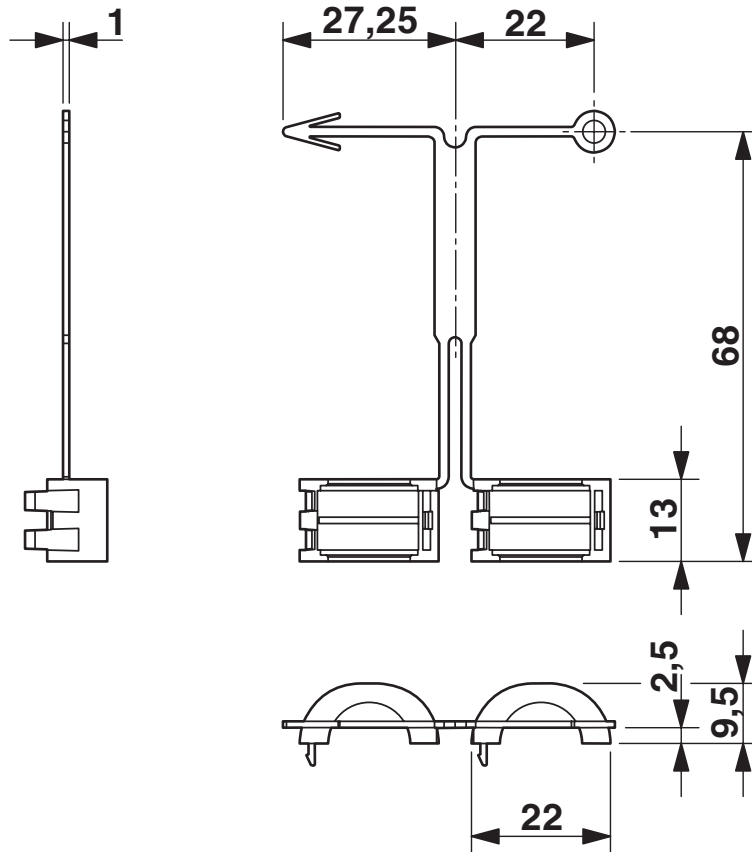
Contact assignment of the M12 plug and the M12 socket

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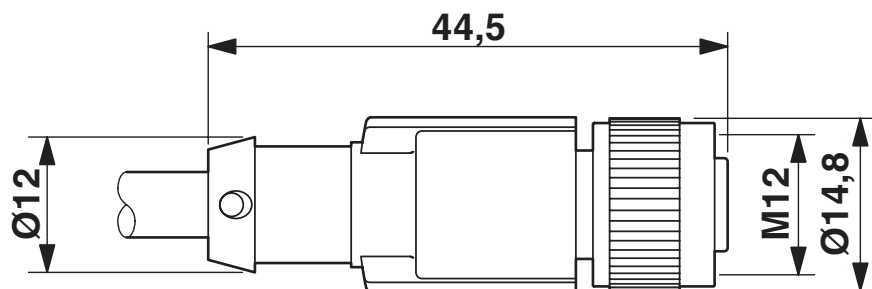
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Dimensional drawing



EXCLIP socket

Dimensional drawing



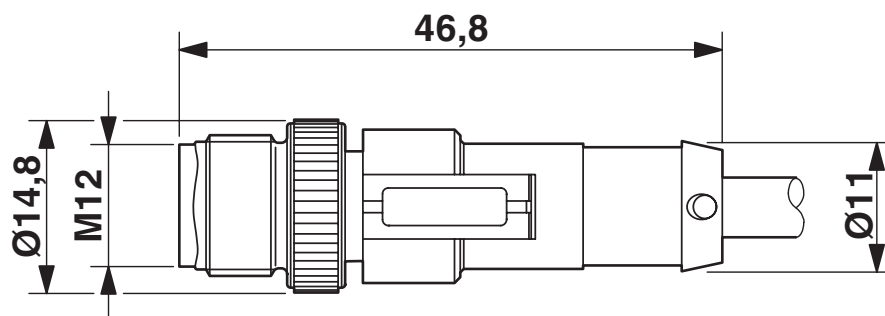
M12 x 1 socket, straight, shielded

SAC-HZ-4P-M12MS/1,5-542/M12FSSH - Sensor/actuator cable

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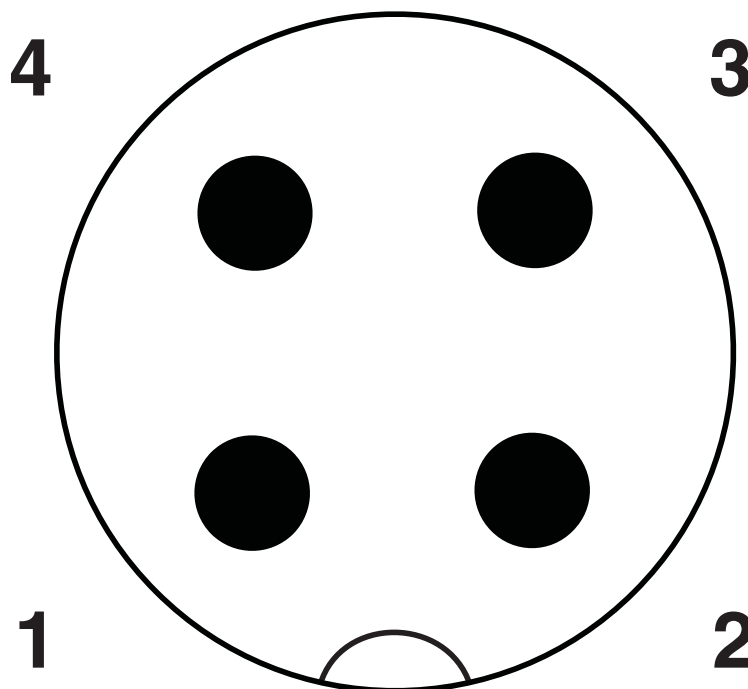
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Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



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

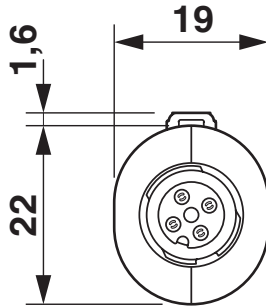
SAC-HZ-4P-M12MS/1,5-542/M12FSSH - Sensor/actuator cable



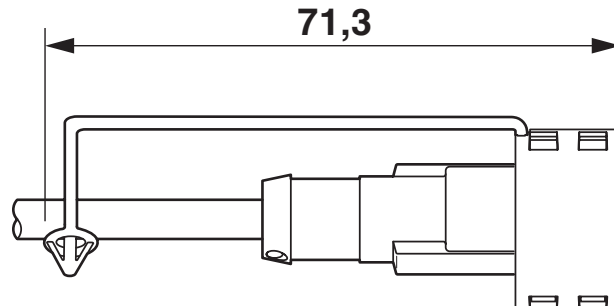
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Dimensional drawing



EXCLIP mounted plug



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1409538>

**EAC-RoHS**
Approval ID: RU D-DE.HB35.B.00387

	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	-	-

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	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-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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