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SAC-HZ-5P-M12MS/ 1,5-542/M12FS - Sensor/actuator cable

1409598

https://www.phoenixcontact.com/in/products/1409598

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Sensor/actuator cable, 5-position, PVC, yellow, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 1.5 m

Commercial data

Item number	1409598
Packing unit	1 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	BF1
Product key	AF1IGC
GTIN	4055626018546
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.

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	≥ 100 MΩ
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)

Connector

Connection 1

Type	Plug straight M12

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Number of positions	5
Coding type	A

Connection 2

Type	Socket straight M12
Number of positions	5
Coding type	A

Cable/line

Cable length	1.5 m

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	30x 1.30 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)

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	-5 °C ... 105 °C (Cable, flexible installation)

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

Standards and regulations

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

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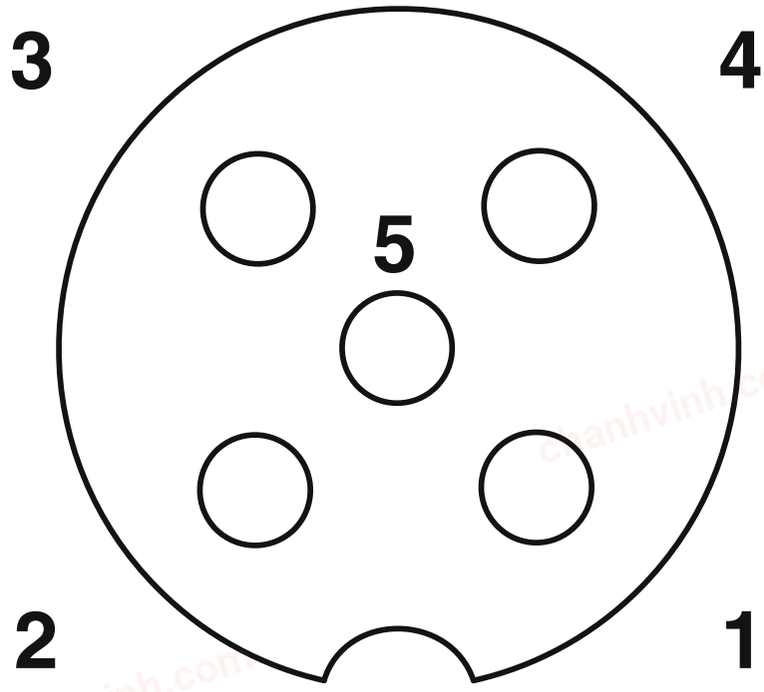
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Drawings

Schematic diagram



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

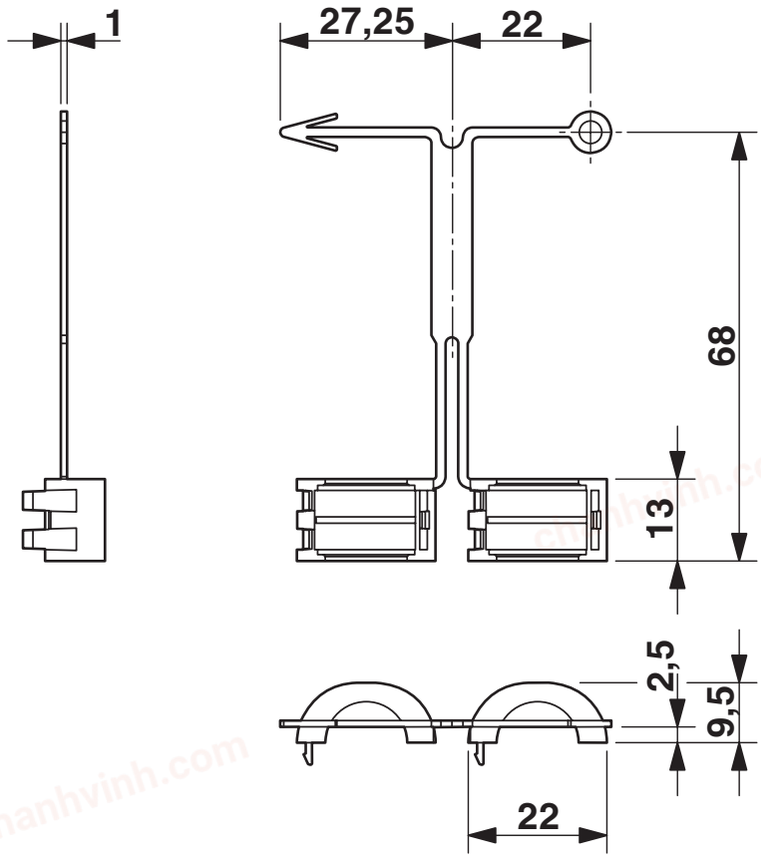
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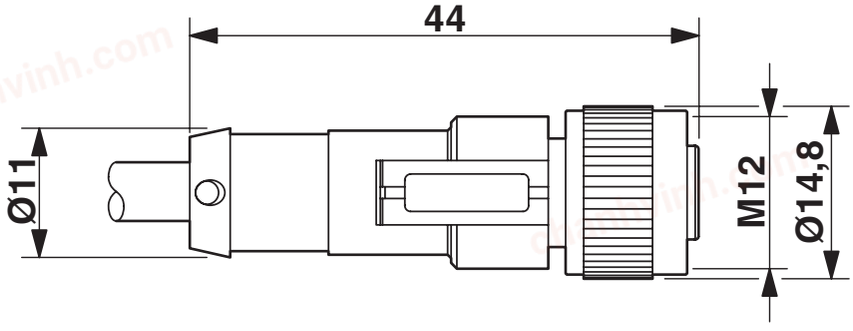
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Dimensional drawing



EXCLIP socket

Dimensional drawing



M12 x 1 socket, straight

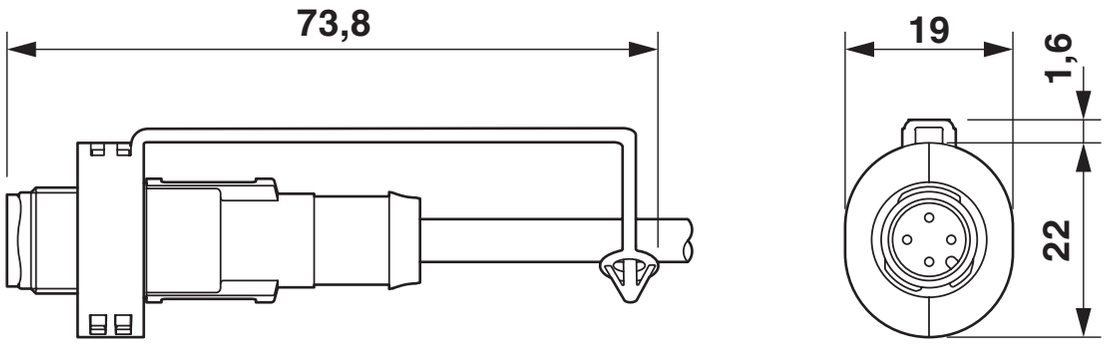
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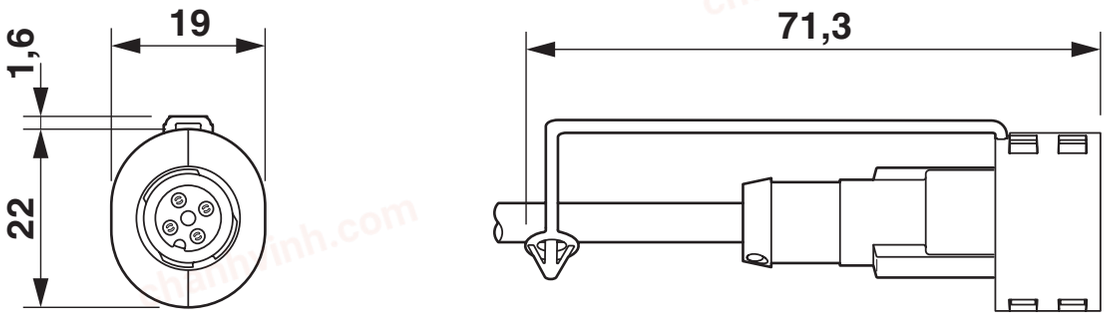
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Dimensional drawing



EXCLIP mounted plug

Dimensional drawing



EXCLIP mounted plug

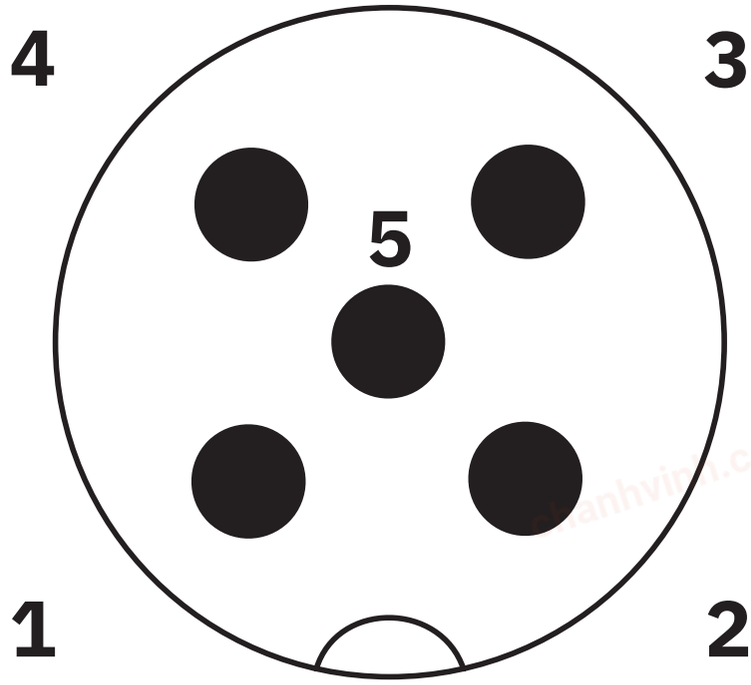
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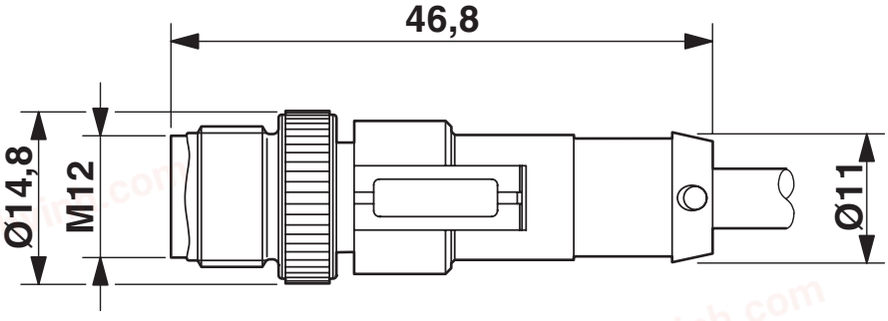
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Schematic diagram



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

Dimensional drawing



Plug, M12 x 1, straight, shielded

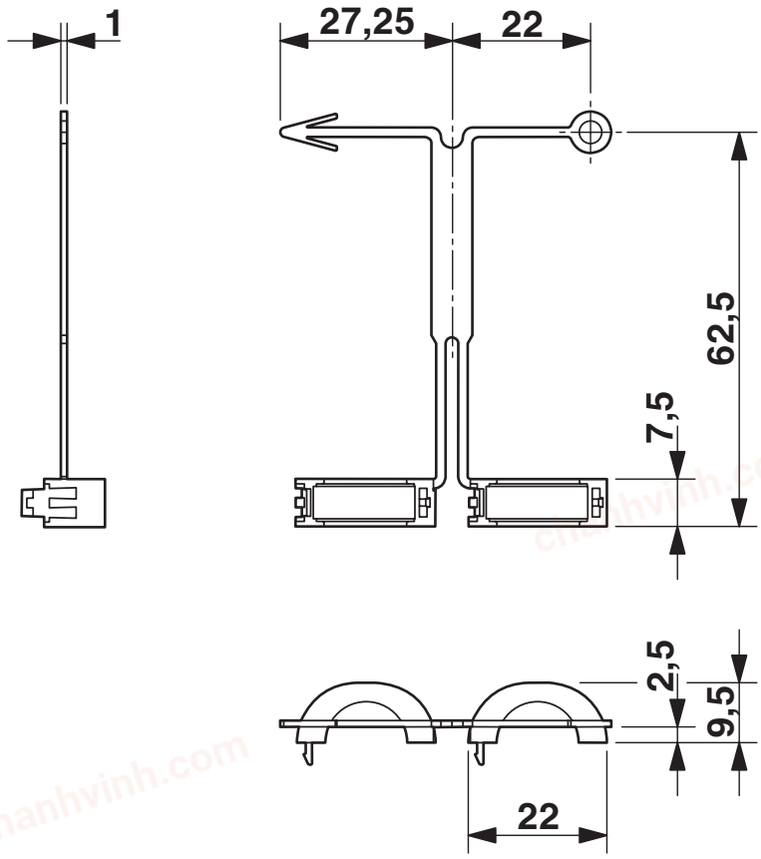
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Dimensional drawing



EXCLIP plug

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/in/products/1409598

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	-	-

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

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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Accessories

PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

https://www.phoenixcontact.com/in/products/1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs



SAC-M12-EXCLIP-M - Locking clip

1558988

https://www.phoenixcontact.com/in/products/1558988

Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools



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SAC-HZ-5P-M12MS/ 1,5-542/M12FS - Sensor/actuator cable

1409598

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PROT-M12 MS-PA-CHAIN - Screw plug

1430899

https://www.phoenixcontact.com/in/products/1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



SAC-M12-EXCLIP-F - Locking clip

1558991

https://www.phoenixcontact.com/in/products/1558991

Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools



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SAC-HZ-5P-M12MS/ 1,5-542/M12FS - Sensor/actuator cable

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TSD 04 SAC - Torque screwdriver

1208429

https://www.phoenixcontact.com/in/products/1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

TSD-M 1,2NM - Torque screwdriver

1212224

https://www.phoenixcontact.com/in/products/1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0. 3 - 1.2 Nm

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SAC-HZ-5P-M12MS/ 1,5-542/M12FS - Sensor/actuator cable

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TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

https://www.phoenixcontact.com/in/products/1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

SAC BIT M12-D15 - Tool

1208432

https://www.phoenixcontact.com/in/products/1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

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