

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.

Sensor/actuator cable, 4-position, PVC, yellow, shielded, free cable end, on Socket angled M12, coding: A, cable length: 5 m



Commercial data

Item number	1409556
Packing unit	1 pc
Minimum order quantity	10 pc
Sales key	BF1
Product key	AF1IGB
GTIN	4055626018126
Weight per piece (including packing)	275 g
Weight per piece (excluding packing)	253.1 g
Customs tariff number	85444290
Country of origin	US

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

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	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)
-------------------	------------------------

Connector

Connection 1

Type	free cable end
------	----------------

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

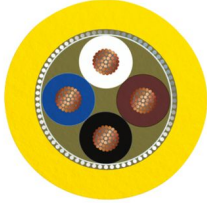
Connection 2

Type	Socket angled M12
Number of positions	4
Coding type	A

Cable/line

Cable length	5 m
--------------	-----

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
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)

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

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
------------------	------------------------------------

Standards and regulations

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

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable

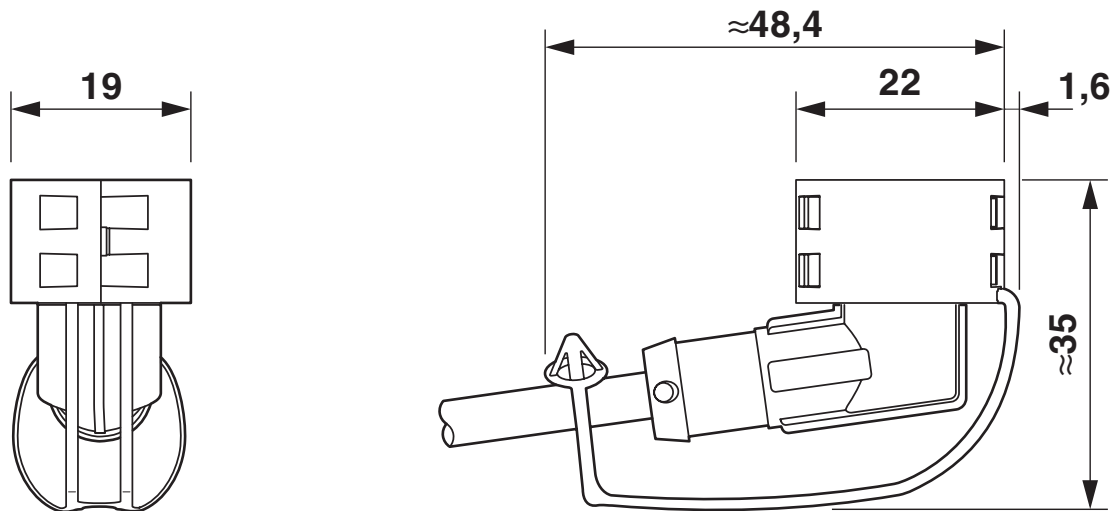


1409556

<https://www.phoenixcontact.com/in/products/1409556>

Drawings

Dimensional drawing



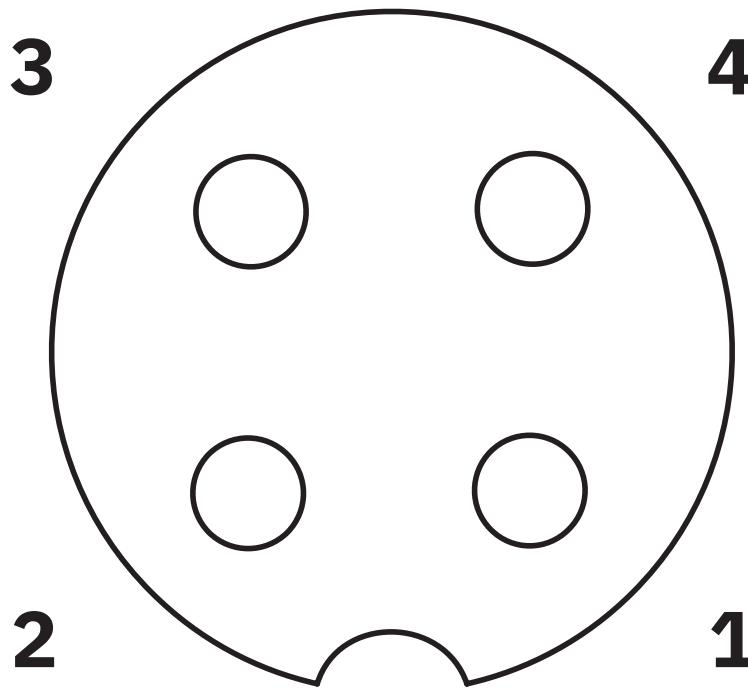
EXCLIP mounted plug

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable

1409556

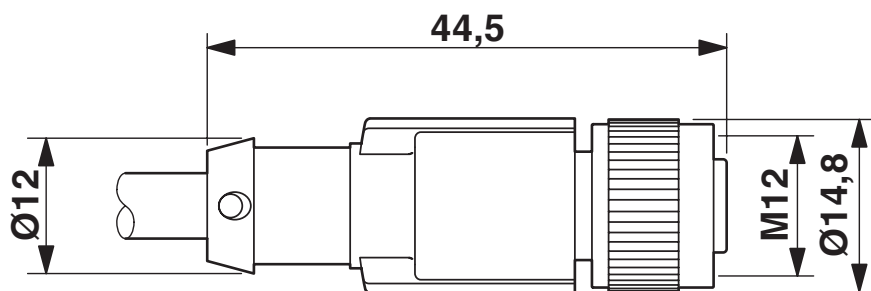
<https://www.phoenixcontact.com/in/products/1409556>

Schematic diagram



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

Dimensional drawing



M12 x 1 socket, straight, shielded

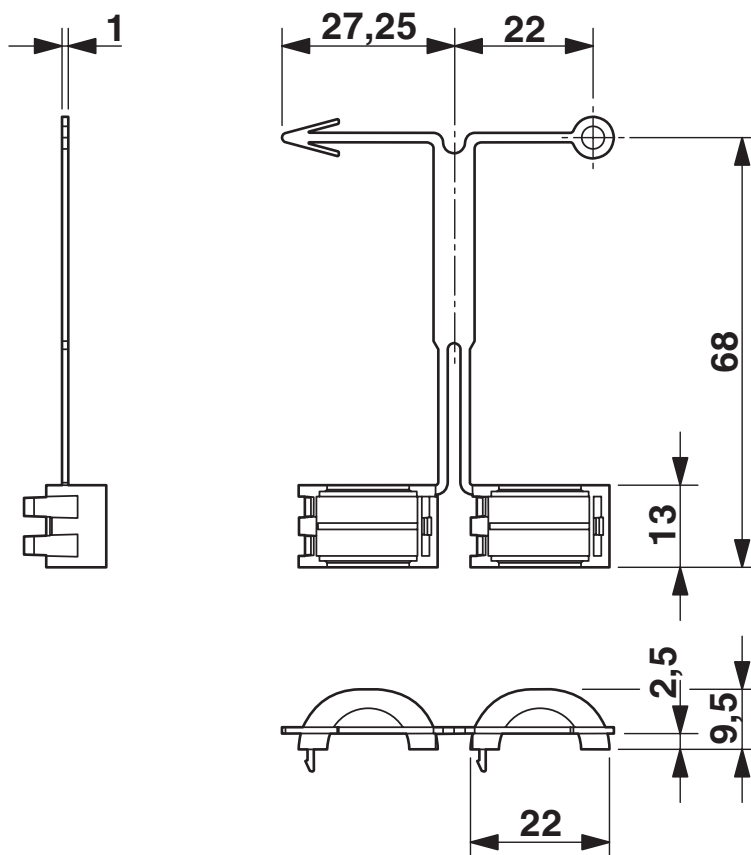
SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

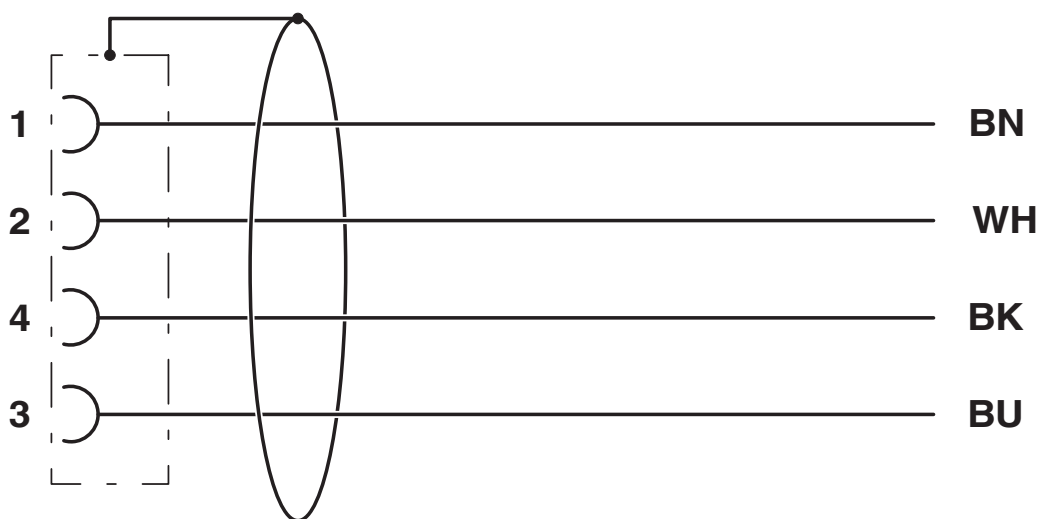
<https://www.phoenixcontact.com/in/products/1409556>

Dimensional drawing



EXCLIP socket

Circuit diagram



Contact assignment of the M12 plug and the M12 socket

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/1409556>



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

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

Classifications

ECLASS

ECLASS-11.0	27060311
ECLASS-12.0	27060311
ECLASS-13.0	27060311

ETIM

ETIM 9.0	EC001855
----------	----------

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556
<https://www.phoenixcontact.com/in/products/1409556>

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%

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

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



SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

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



SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

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

SAC-HZ-4P- 5,0-542/M12FR SH BK - Sensor/actuator cable



1409556

<https://www.phoenixcontact.com/in/products/1409556>

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

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

info@phoenixcontact.co.in