

# SAC-HZ-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable



1409590

<https://www.phoenixcontact.com/us/products/1409590>

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, 5-position, PVC, yellow, shielded, Plug angled M12, coding: A, on free cable end, cable length: 5 m



## Commercial data

Item number	1409590
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF13
Product key	AF1IGC
GTIN	4055626018461
Weight per piece (including packing)	301.1 g
Weight per piece (excluding packing)	301.1 g
Customs tariff number	85444290
Country of origin	US

# SAC-HZ-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable



1409590

<https://www.phoenixcontact.com/us/products/1409590>

## 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	yes
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Material specifications

Material	TPE-U (Locking clip)
Flammability rating according to UL 94	HB
Seal material	NBR
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

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
-----------------------------	------------

### Signaling

Status display	no
Status display present	no

### Connection data

# SAC-HZ-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable



1409590

<https://www.phoenixcontact.com/us/products/1409590>

## Conductor connection

Tightening torque	0.4 Nm (M12 connector)
-------------------	------------------------

## Connector

### Connection 1

Type	Plug angled M12
Coding type	A

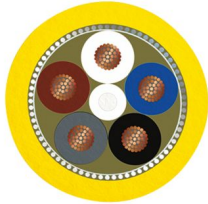
### Connection 2

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

## Cable/line

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

### PVC yellow 105 °C [542]

Dimensional drawing	
Cable weight	57 kg/km
UL AWM Style	2517 (105 °C / 300 V)
Number of positions	5
Shielded	yes
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	5.90 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
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

# SAC-HZ-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable



1409590

<https://www.phoenixcontact.com/us/products/1409590>

Smallest bending radius, movable installation	71 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)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65 IP67 IP68
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)
Ambient temperature (operation) (Locking clip)	-40 °C ... 65 °C (Locking clip)

## 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-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable



1409590

<https://www.phoenixcontact.com/us/products/1409590>

## Drawings

Dimensional drawing



EXCLIP mounted plug

# SAC-HZ-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable



1409590

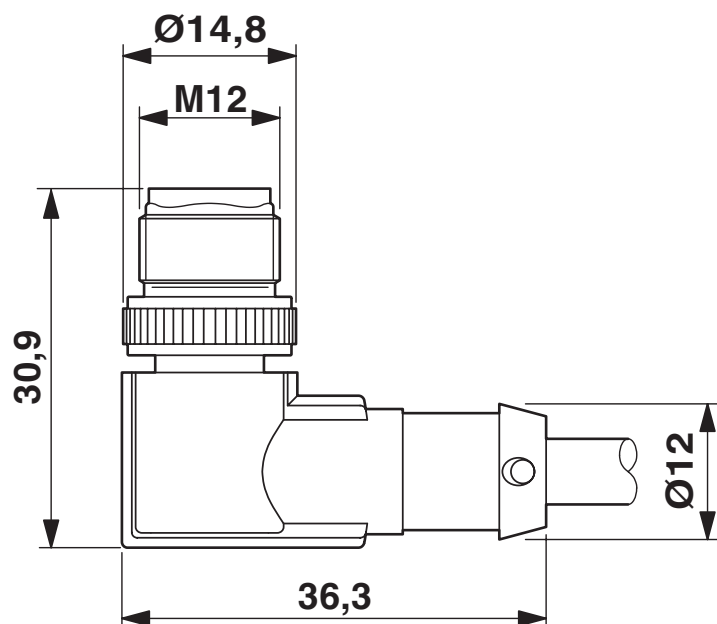
<https://www.phoenixcontact.com/us/products/1409590>

Dimensional drawing



EXCLIP plug

Dimensional drawing



Plug, M12 x 1, angled, shielded

# SAC-HZ-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable

1409590

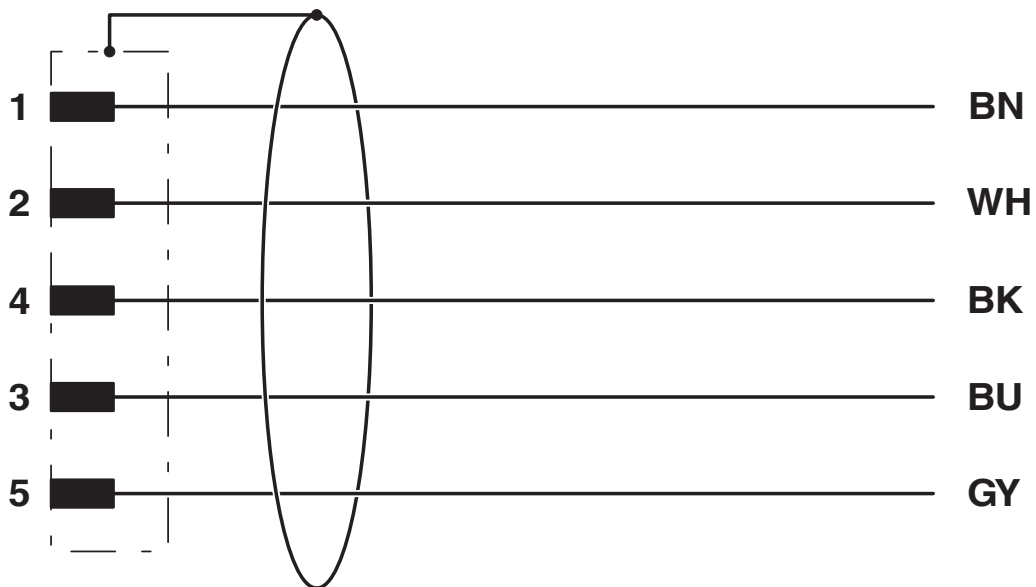
<https://www.phoenixcontact.com/us/products/1409590>

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plugs

# SAC-HZ-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable



1409590

<https://www.phoenixcontact.com/us/products/1409590>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1409590>

 <b>cUL Listed</b> Approval ID: FILE E 359524				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	150 V	4 A	-	-

 <b>UL Listed</b> Approval ID: FILE E 359524				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	150 V	4 A	-	-

# SAC-HZ-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable



1409590

<https://www.phoenixcontact.com/us/products/1409590>

## Classifications

### ECLASS

ECLASS-13.0	27060311
ECLASS-15.0	27060311

### ETIM

ETIM 10.0	EC001855
-----------	----------

### UNSPSC

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

# SAC-HZ-5P-M12MR/ 5,0-542 SH BK - Sensor/actuator cable



1409590

<https://www.phoenixcontact.com/us/products/1409590>

## 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%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)