

# Sensor/actuator cable - SAC-8P- 1,5-PUR/M12FS



1522590

<https://www.phoenixcontact.com/gb/products/1522590>

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, 8-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket straight M12, coding: A, cable length: 1.5 m

## Your advantages

- Easy and safe: 100% electrically tested plug-in components

## Commercial Data

Item number	1522590
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1CFA
Product Key	BF1CFA
Catalog Page	Page 208 (C-2-2019)
GTIN	4017918957438
Weight per Piece (including packing)	78 g
Weight per Piece (excluding packing)	74 g
Customs tariff number	85444290
Country of origin	PL

# Sensor/actuator cable - SAC-8P- 1,5-PUR/M12FS



1522590

<https://www.phoenixcontact.com/gb/products/1522590>

## Technical Data

### Product properties

Product type	Sensor/actuator cable
Number of positions	8
Application	Standard
No. of cable outlets	1
Shielded	no
Coding	A - standard

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Material specifications

Flammability rating according to UL 94	HB
Sealing material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Cable gland material	Zinc die-cast, nickel-plated

### Electrical properties

Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	30 V AC
	30 V DC
Nominal current $I_N$	2 A
Protective circuit	unwired

### Connection data

#### Conductor connection

Tightening torque	0.4 NmM12 connector
-------------------	---------------------

### Connector

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

#### Connection 1

Head design	free cable end
-------------	----------------

#### Head 2

Head design	Socket
Head cable outlet	straight
Head thread type	M12

## Sensor/actuator cable - SAC-8P- 1,5-PUR/M12FS



1522590

<https://www.phoenixcontact.com/gb/products/1522590>

Coding	A
--------	---

## LED signaling

Status display	No
Status display present	No

## Cable / line

Cable length	1.5 m
Cable weight	46 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	8
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	8x 0.25 mm <sup>2</sup>
Wire diameter incl. insulation	1.17 mm ±0.02 mm
External cable diameter	5.9 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	white, brown, green, yellow, gray, pink, blue, red
Thickness, insulation	≥ 0.21 mm
Thickness, outer sheath	approx. 0.8 mm
Overall twist	8 wires around filler to the core
Max. conductor resistance	≤ 78 Ω/km
Insulation resistance	≥ 1 GΩ*km
Wave impedance	100 Ω +15 % (with 1 MHz)
Cable capacity	≤ 70 pF/m
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	8 x D
Minimum bending radius, flexible installation	10 x D
Max. bending cycles	4000000
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 758/1581 FT2 According to DIN EN 60332-2-2 (20 s)
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents hydrolysis and microbe resistant partly UV-resistant in accordance with DIN EN ISO 4892-2-A Low adhesion abrasion-resistant

## Sensor/actuator cable - SAC-8P- 1,5-PUR/M12FS



1522590

<https://www.phoenixcontact.com/gb/products/1522590>

Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
	flexible
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-25 °C ... 80 °C (Cable, flexible installation)
Cable weight	46 kg/km

## Cable structure

Cable abbreviation	Li9Y11Y
Cable type	PUR halogen-free black
External cable diameter	5.90 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Material, filler	PE
Material wire insulation	PP
Thickness, insulation	≥ 0.21 mm (Core insulation)
Wire diameter incl. insulation	1.17 mm ±0.02 mm
Single wire, color	white, brown, green, yellow, gray, pink, blue, red

## Electrical properties

Nominal voltage, cable	300 V
Test voltage, cable	3000 V
Conductor resistance	≤ 78 Ω/km
Cable insulation resistance	≥ 100 GΩ*km

## Ambient conditions

Ambient temperature (operation)	-5 °C ... 80 °C (Cable, flexible installation)
	-40 °C ... 80 °C (cable, fixed installation)

## Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

## Standards and regulations

Standards/specifications	IEC 61076-2-101
--------------------------	-----------------

# Sensor/actuator cable - SAC-8P- 1,5-PUR/M12FS

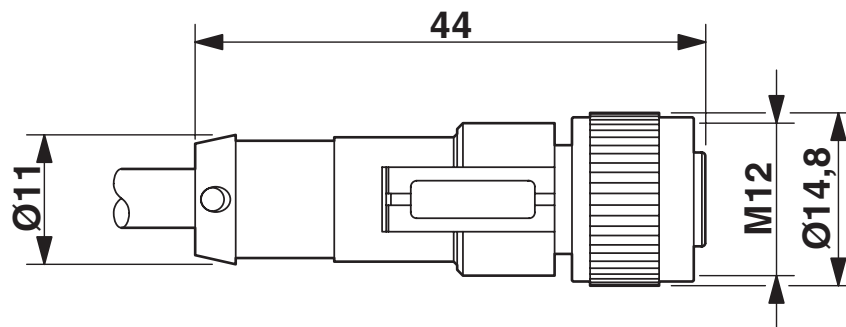


1522590

<https://www.phoenixcontact.com/gb/products/1522590>

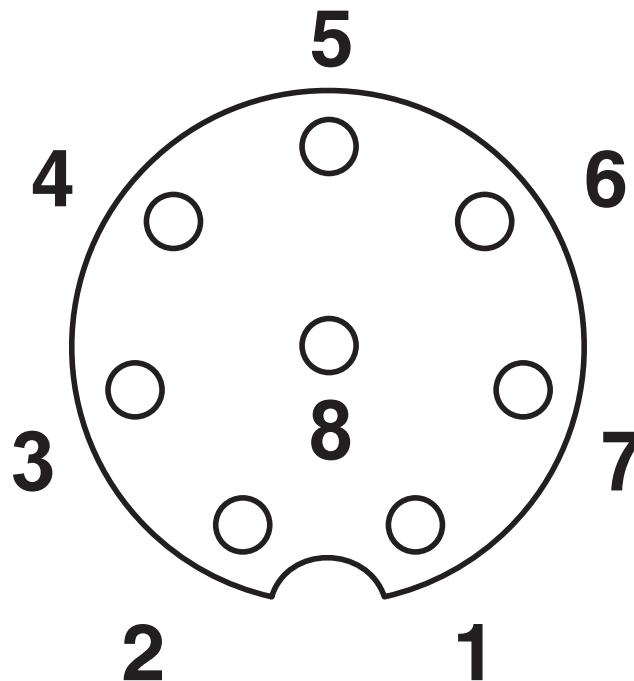
## Drawings

Dimensional drawing



M12 x 1 socket, straight

Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

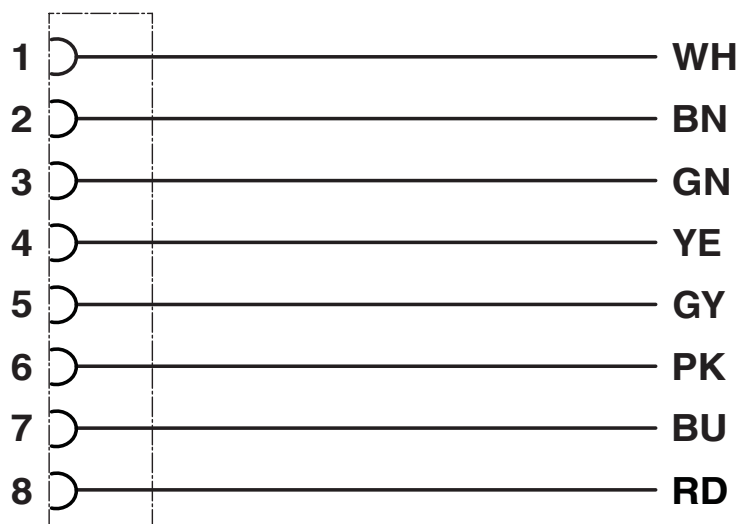
# Sensor/actuator cable - SAC-8P- 1,5-PUR/M12FS



1522590

<https://www.phoenixcontact.com/gb/products/1522590>

Circuit diagram



Contact assignment of the M12 socket

## Sensor/actuator cable - SAC-8P- 1,5-PUR/M12FS



1522590

<https://www.phoenixcontact.com/gb/products/1522590>

## Approvals

**UL Listed**

Approval ID: FILE E 221474

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	30 V	2 A	-	-

**cUL Listed**

Approval ID: FILE E 221474

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	30 V	2 A	-	-

**EAC**

Approval ID: RU D-DE.HB35.B.00387

**cULus Listed**

# Sensor/actuator cable - SAC-8P- 1,5-PUR/M12FS



1522590

<https://www.phoenixcontact.com/gb/products/1522590>

## Classifications

### ECLASS

ECLASS-9.0	27060311
ECLASS-10.0.1	27060311
ECLASS-11.0	27060311

### ETIM

ETIM 8.0	EC001855
----------	----------

### UNSPSC

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

# Sensor/actuator cable - SAC-8P- 1,5-PUR/M12FS



1522590

<https://www.phoenixcontact.com/gb/products/1522590>

## Environmental Product Compliance

China RoHS

Environmentally friendly use period: unlimited = EFUP-e

No hazardous substances above threshold values

Phoenix Contact 2022 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd  
Halesfield 13, Telford  
Shropshire, TF7 4PG  
01952 681700  
[info@phoenixcontact.co.uk](mailto:info@phoenixcontact.co.uk)



**SCATTERGOOD  
& JOHNSON LTD**  
ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product manufacturers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

**[www.scatts.co.uk](http://www.scatts.co.uk)**