

# Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

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's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Sensor/Actuator cable, 5-position, PUR halogen-free, Black-gray RAL 7021, Free cable end, on Socket angled M12, A-coded, Cable length: 10 m

## Product Features

- Easy and safe: 100% electrically tested plug-in components
- Our standard: robust halogen-free PUR cable

## Key commercial data

<b>package_quantity</b>	1
<b>GTIN</b>	4017918178413

## Technical data

### Dimensions

<b>Length of cable</b>	10 m
<b>Stripping length of the free conductor end</b>	50 mm

### Ambient conditions

<b>Ambient temperature (operation)</b>	-25 °C ... 90 °C (Plug / socket)
<b>Degree of protection</b>	IP65
<b>Degree of protection</b>	IP67
<b>Degree of protection</b>	IP68

### General

<b>Rated current at 40°C</b>	4 A
<b>Rated voltage</b>	60 V
<b>Number of positions</b>	5
<b>Contact resistance</b>	≤ 5 mΩ
<b>Insulation resistance</b>	≥ 100 MΩ
<b>Coding</b>	A - standard
<b>Standards/regulations</b>	M12 connector IEC 61076-2-101
<b>Status display</b>	No
<b>Protective circuit/component</b>	Unwired
<b>Surge voltage category</b>	II
<b>Pollution degree</b>	3
<b>Insertion/withdrawal cycles</b>	≥ 100

# Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

## Technical data

### General

<b>Torque</b>	0.4 Nm (M12 connector)
---------------	------------------------

### Material

<b>Inflammability class according to UL 94</b>	HB
<b>Contact material</b>	CuSn
<b>Contact surface material</b>	Ni/Au
<b>Contact carrier material</b>	TPU GF
<b>Material of grip body</b>	TPU, hardly inflammable, self-extinguishing
<b>Material, knurls</b>	Zinc die-cast, nickel-plated
<b>Sealing material</b>	NBR

### Cable

<b>Cable type</b>	PUR halogen-free black
<b>Cable type (abbreviation)</b>	PUR
<b>UL AWM style</b>	20549
<b>Conductor cross section</b>	5x 0.34 mm <sup>2</sup> (signal line)
<b>AWG signal line</b>	22
<b>Conductor structure signal line</b>	42x 0.10 mm
<b>Core diameter including insulation</b>	1.27 mm ±0.02 mm (signal line)
<b>Thickness, insulation</b>	approx. 0.7 mm
<b>Wire colors</b>	brown, white, blue, black, green-yellow
<b>External sheath, color</b>	Black-gray RAL 7021
<b>External cable diameter D</b>	5 mm ±0.15 mm
<b>Smallest bending radius, fixed installation</b>	25 mm
<b>Smallest bending radius, movable installation</b>	50 mm
<b>Number of bending cycles</b>	4000000
<b>Bending radius</b>	50 mm
<b>Traversing path</b>	10 m
<b>Traversing rate</b>	3 m/s
<b>Acceleration</b>	10 m/s <sup>2</sup>
<b>Cable weight</b>	35 kg/km
<b>Outer sheath, material</b>	PUR
<b>Conductor material</b>	Bare Cu litz wires
<b>Insulation resistance</b>	≥ 16 GΩ*km (at 20 °C)
<b>Conductor resistance</b>	max. 58 Ω/km (at 20 °C)
<b>Nominal voltage, cable</b>	300 V
<b>Test voltage, cable</b>	3000 V
<b>Special properties</b>	Flexible cable conduit capable
<b>Special properties</b>	Silicone-free
<b>Special properties</b>	Free of substances which would hinder coating with paint or varnish
<b>Special properties</b>	Flexible
<b>Flame resistance</b>	in accordance with DIN UL-Style 20549

# Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

## Technical data

### Cable

<b>Halogen-free</b>	in accordance with DIN VDE 0472 part 815
<b>Resistance to oil</b>	in accordance with DIN EN 60811-2-1
<b>Other resistance</b>	Highly resistant to acids, alkaline solutions and solvents
<b>Other resistance</b>	hydrolysis and microbe resistant
<b>Other resistance</b>	Resistant to salt water
<b>Other resistance</b>	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
<b>Ambient temperature (operation)</b>	-40 °C ... 80 °C (cable, fixed installation)
<b>Ambient temperature (operation)</b>	-25 °C ... 80 °C (cable, flexible installation)

## classifications

### eCl@ss

<b>eCl@ss 4.0</b>	27060306
<b>eCl@ss 4.1</b>	27060306
<b>eCl@ss 5.0</b>	27061801
<b>eCl@ss 5.1</b>	27061801
<b>eCl@ss 6.0</b>	27061801
<b>eCl@ss 7.0</b>	27061801
<b>eCl@ss 8.0</b>	27061801

### ETIM

<b>ETIM 2.0</b>	EC000830
<b>ETIM 3.0</b>	EC001855
<b>ETIM 4.0</b>	EC001855
<b>ETIM 5.0</b>	EC001855

### UNSPSC

<b>UNSPSC 6.01</b>	31251501
<b>UNSPSC 7.0901</b>	31251501
<b>UNSPSC 11</b>	31251501
<b>UNSPSC 12.01</b>	31251501
<b>UNSPSC 13.2</b>	31251501

## approvals

UL Listed / cUL Listed / GOST / cULus Listed /

### Approval details



# Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

## approvals

Nominal voltage UN	125 V
Nominal current IN	4 A
mm <sup>2</sup> /AWG/kcmil	

cUL Listed	
Nominal voltage UN	125 V
Nominal current IN	4 A
mm <sup>2</sup> /AWG/kcmil	

GOST	
------	--

cULus Listed	
--------------	--

## accessories

### Conductor marking

PABA WH/15 - 1013151



PABA YE/15 - 1013698



## Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

### accessories

PABA RD/15 - 1013944



---

### Marker carrier cable

PATG 2/15 - 1013038



---

PATG 3/15 - 1013041



---

PATG 4/15 - 1013054



---

### Marker pen

B-STIFT - 1051993



---

### Cutting tools

## Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

### accessories

CUTFOX-S VDE - 1212207



---

### Stripping tool

WIREFOX SAC - 1212623



WIREFOX 10 - 1212150



---

### Protective cap

PROT-M12 MS-PA-CHAIN - 1430899



---

### Safety locking

SAC-M12-EXCLIP-F - 1558991



## Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

accessories

### Torque tool

TSD 04 SAC - 1208429



TSD-M 1,2NM - 1212224



### Screwdriver tools

TSD-M SAC-BIT ADAPTER - 1212600



SAC BIT M12-D15 - 1208432



accessories

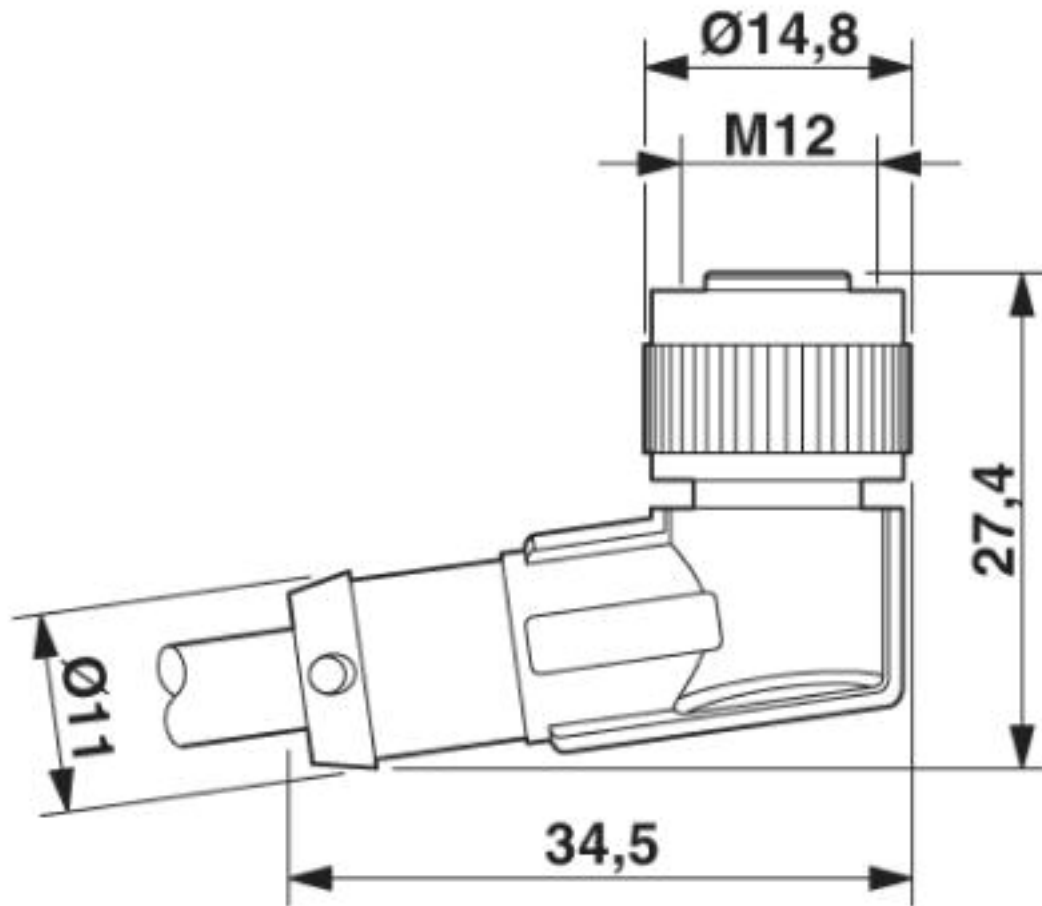
WIREFOX SAC-1 - 1212757

---

# Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

## Drawings

Dimensioned drawing

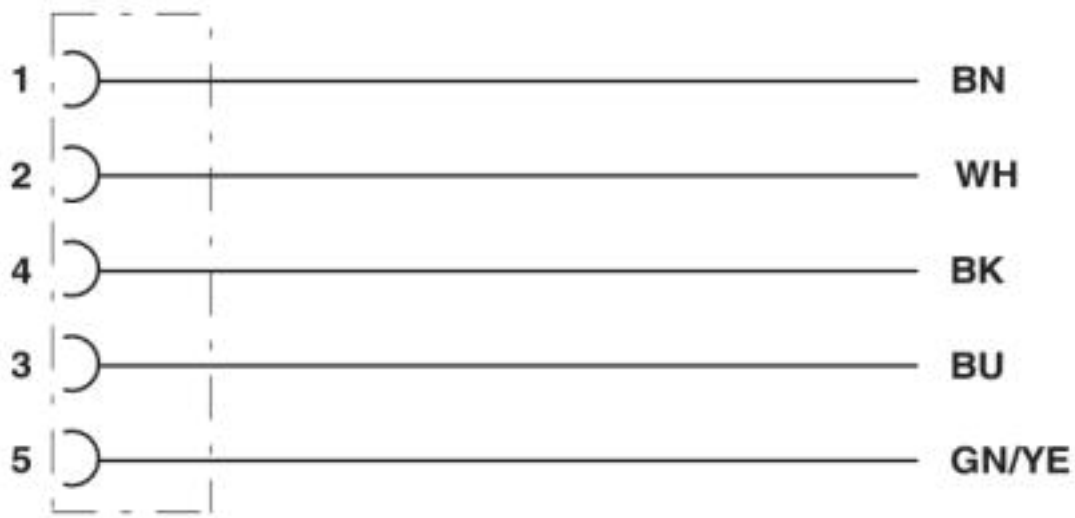


M12 x 1 socket, angled



## Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

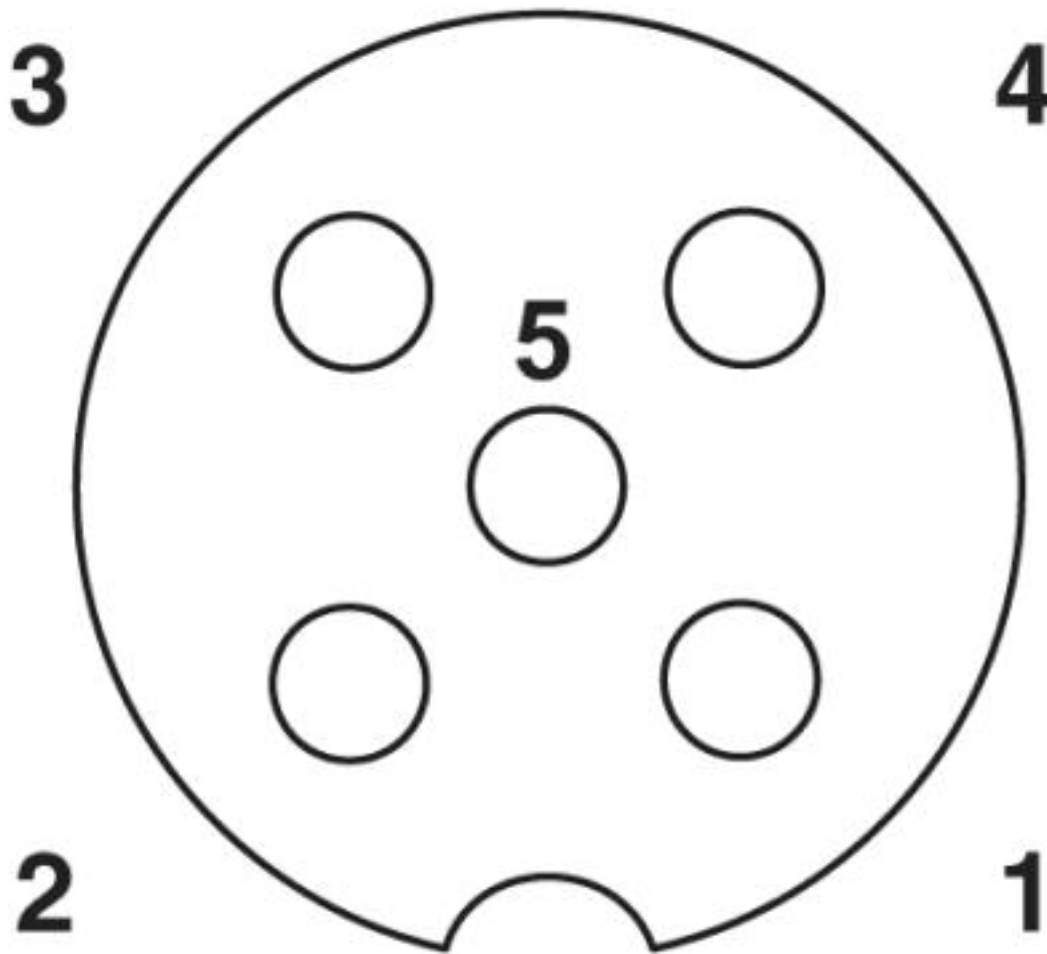
Circuit diagram



Contact assignment of the M12 socket

# Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

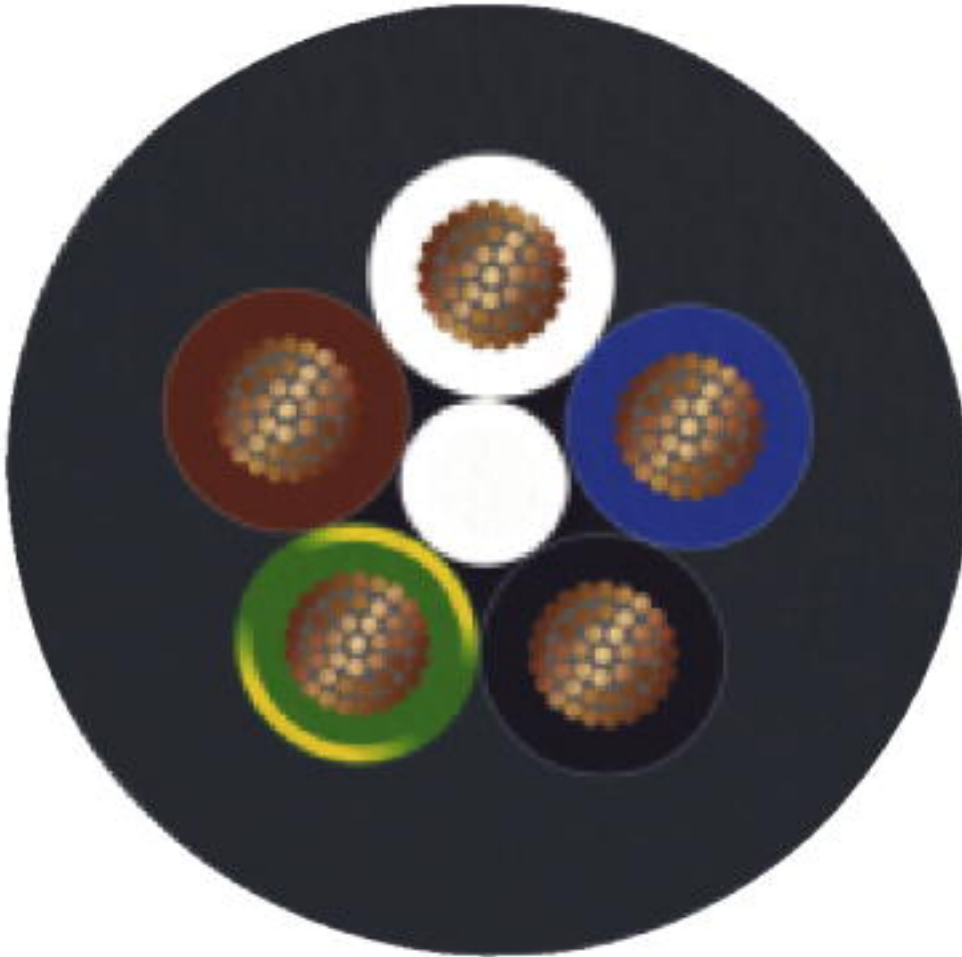
Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

## Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR - 1694541

Cable cross section



PUR halogen-free black [PUR]

© Phoenix Contact 2013 - all rights reserved  
<http://www.phoenixcontact.com>