

# Sensor/Actuator cable - SAC-3P-M 8MS/1,5-PUR/M12FR - 1682362

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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M8, on Socket angled M12, A-coded, Cable length: 1.5 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>	4017918159023

## Technical data

### Dimensions

<b>Length of cable</b>	1.5 m
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### 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>	3
<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>Standards/regulations</b>	M8 connector IEC 61076-2-104
<b>Status display</b>	No
<b>Protective circuit/component</b>	Unwired
<b>Surge voltage category</b>	II
<b>Pollution degree</b>	3

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## Technical data

### General

Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)
Torque	0.2 Nm (M8 connectors)

### Material

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

### Cable

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y11Y-HF
UL AWM style	20549
Conductor cross section	3x 0.25 mm <sup>2</sup> (signal line)
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Core diameter including insulation	1.17 mm ±0.02 mm (signal line)
Thickness, insulation	≥ 0.38 mm (Core insulation)
Thickness, insulation	approx. 0.9 mm (Outer cable sheath)
Wire colors	brown, blue, black
Overall twist	3 wires, twisted
Length of twist, overall twist	40 mm
External sheath, color	Black-gray RAL 7021
External cable diameter D	4.4 mm ±0.15 mm
Smallest bending radius, fixed installation	22 mm
Smallest bending radius, movable installation	44 mm
Number of bending cycles	4000000
Bending radius	44 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	24 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 GΩ*km (at 20 °C)

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## Technical data

### Cable

<b>Conductor resistance</b>	≤ 78 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>Flame resistance</b>	in accordance with DIN UL-Style 20549
<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>	hydrolysis and microbe resistant
<b>Other resistance</b>	Highly resistant to acids, alkaline solutions and solvents
<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

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## approvals

UL Listed / GOST / cUL Listed / GOST / cULus Listed /

### Approval details

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

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

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<b>cULus Listed</b>	
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## accessories

### Protective cap

PROT-M 8 FS-PA-CHAIN - 1430857



## Sensor/Actuator cable - SAC-3P-M 8MS/1,5-PUR/ M12FR - 1682362

### accessories

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PROT-M12 MS-PA-CHAIN - 1430899



### Conductor marking

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PABA WH/15 - 1013151



PABA YE/15 - 1013698



PABA RD/15 - 1013944



### Marker carrier cable

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PATO 2/15 - 1013122



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### accessories

PATO 3/15 - 1013135



PATO 4/15 - 1013148



### Marker pen

B-STIFT - 1051993



### Safety locking

SAC-M12-EXCLIP-F - 1558991



### Torque tool

TSD 02 SAC - 1208487



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### accessories

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TSD 04 SAC - 1208429



TSD-M 1,2NM - 1212224



### Screwdriver tools

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SAC BIT M8-D10 - 1208461



TSD-M SAC-BIT ADAPTER - 1212600



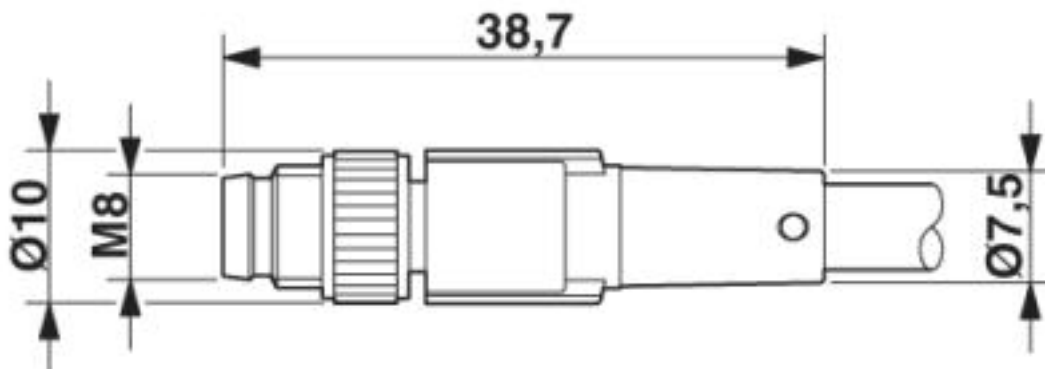
SAC BIT M12-D15 - 1208432



### Drawings

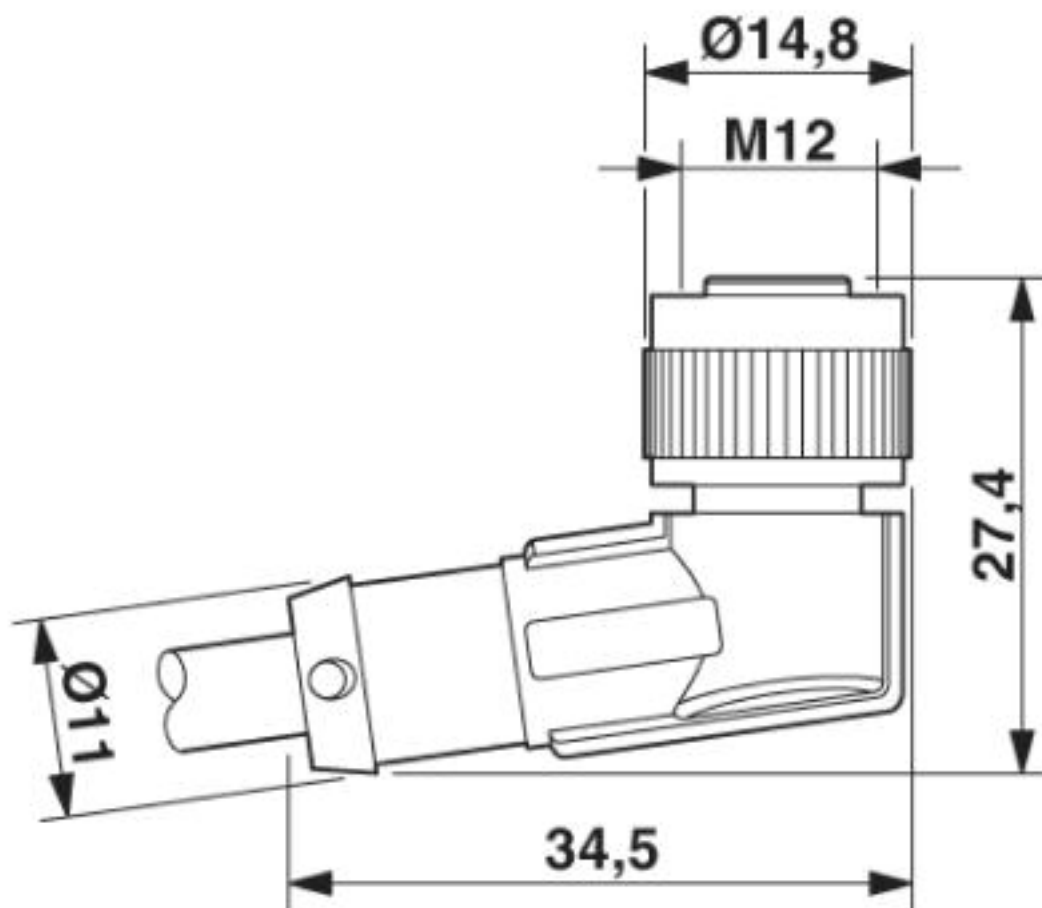
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Dimensioned drawing



M8 x 1 male plug, straight version

Dimensioned drawing

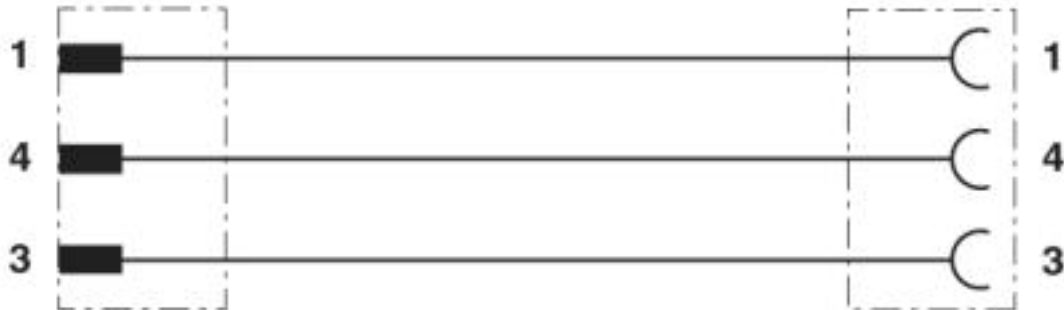


M12 x 1 socket, angled



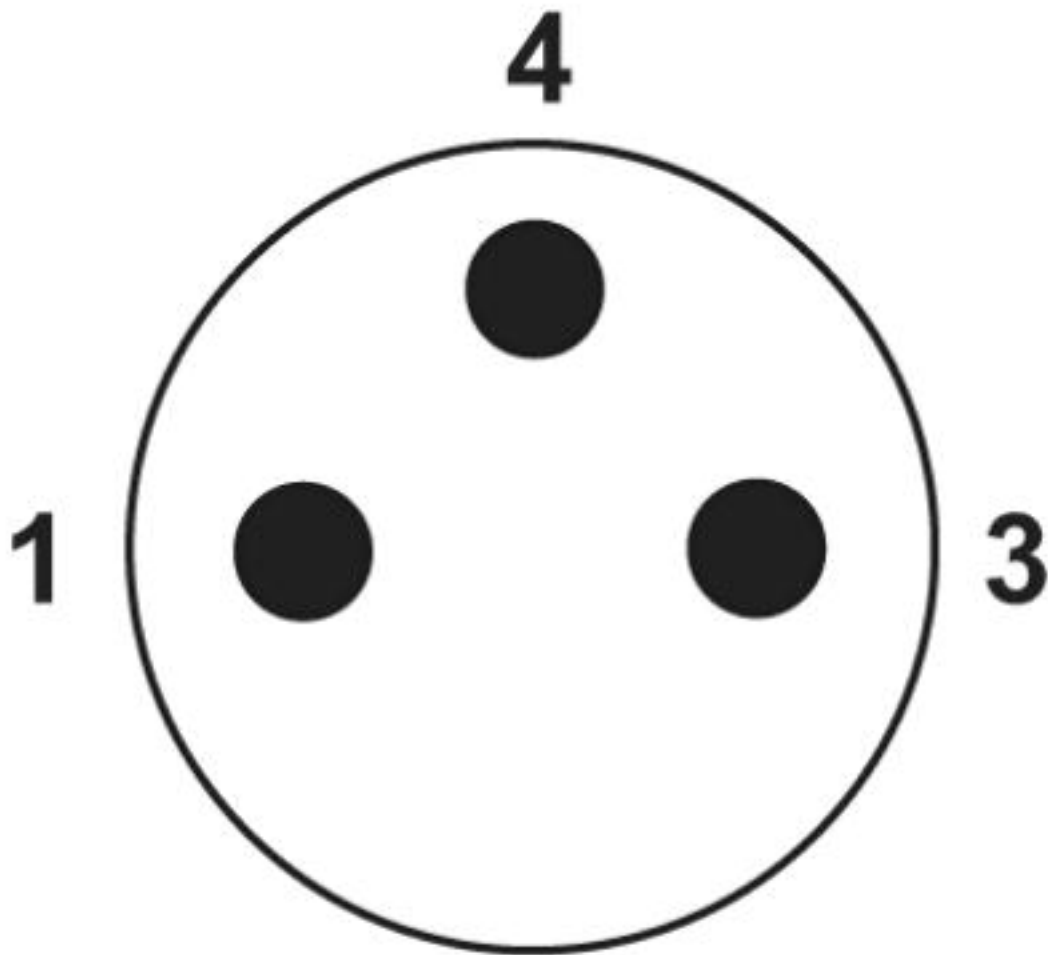
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Circuit diagram



Contact assignment of M8 plugs / M12 sockets

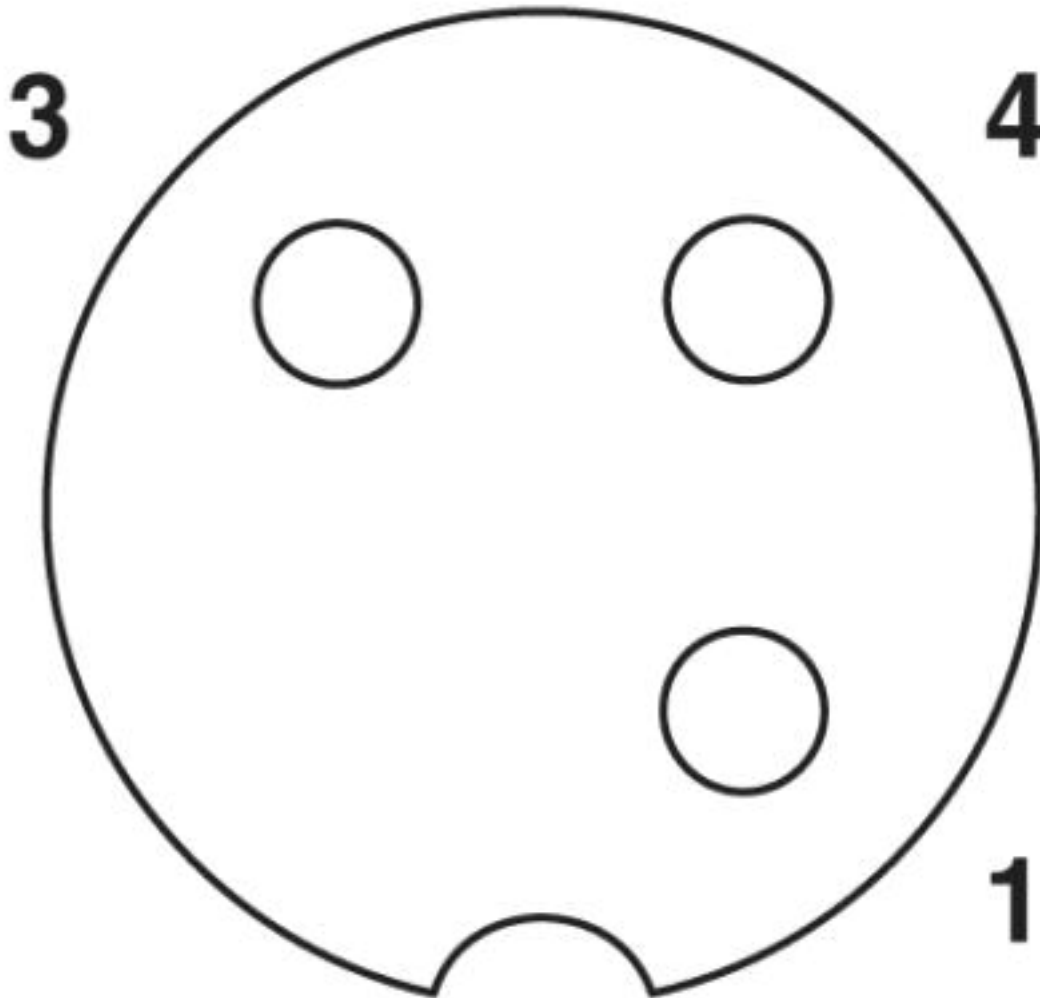
Schematic diagram



Pin assignment M8 plug, 3-pos., view male side

# Sensor/Actuator cable - SAC-3P-M 8MS/1,5-PUR/ M12FR - 1682362

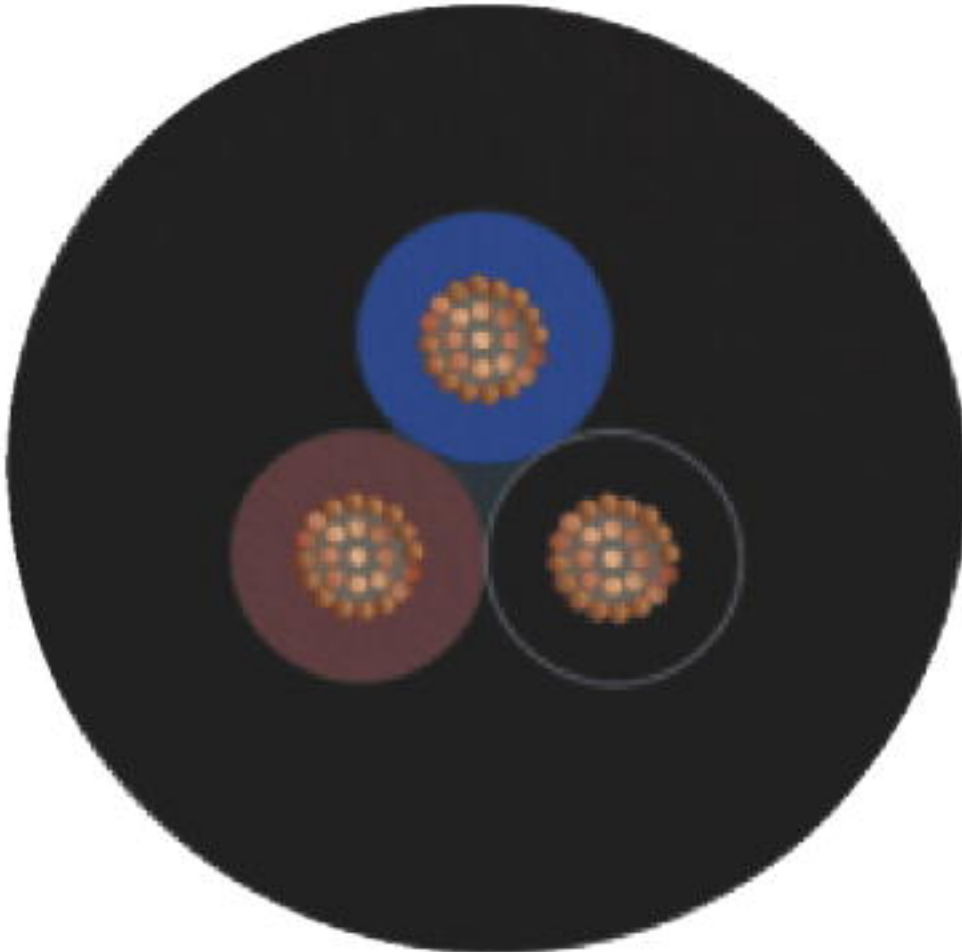
Schematic diagram



Pin assignment M12 socket, 3-pos., A-coded, view female side

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Cable cross section



PUR halogen-free black [PUR]

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