

# Sensor/Actuator cable - SAC-3P-M8Y/2X0,6-PUR/M 8FS - 1458677

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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, Plug straight M8, on Socket straight M8 and Socket straight M8, Cable length: 0.6 m

## Key commercial data

package_quantity	1
GTIN	4046356638029

## Technical data

### Dimensions

Length of cable	0.6 m
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### Ambient conditions

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

### General

Rated current at 40°C	4 A
Rated voltage	30 V
Number of positions	3
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M8 connector IEC 61076-2-104
Status display	No
Surge voltage category	II
Pollution degree	3
Torque	0.2 Nm (M8 knurl)

### Material

Inflammability class according to UL 94	HB
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF

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## Technical data

### Material

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

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## Technical data

### Cable

<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 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 / cULus Listed /

### Approval details

<b>UL Listed</b>	
Nominal voltage UN	30 V
Nominal current IN	4 A
mm <sup>2</sup> /AWG/kcmil	

# Sensor/Actuator cable - SAC-3P-M8Y/2X0,6-PUR/M 8FS - 1458677

approvals

cUL Listed	
Nominal voltage UN	30 V
Nominal current IN	4 A
mm <sup>2</sup> /AWG/kcmil	

cULus Listed	
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accessories

## Torque tool

TSD 02 SAC - 1208487



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## Screwdriver tools

SAC BIT M8-D10 - 1208461



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## Protective cap

PROT-M8 - 1682540



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## Conductor marking

## Sensor/Actuator cable - SAC-3P-M8Y/2X0,6-PUR/M 8FS - 1458677

### accessories

PABA WH/15 - 1013151



PABA YE/15 - 1013698



PABA RD/15 - 1013944



### Labeled conductor marker

PABA WH/15 CUS - 0824444



PABA YE/15 CUS - 0824447



# Sensor/Actuator cable - SAC-3P-M8Y/2X0,6-PUR/M 8FS - 1458677

accessories

PABA RD/15 CUS - 0824442

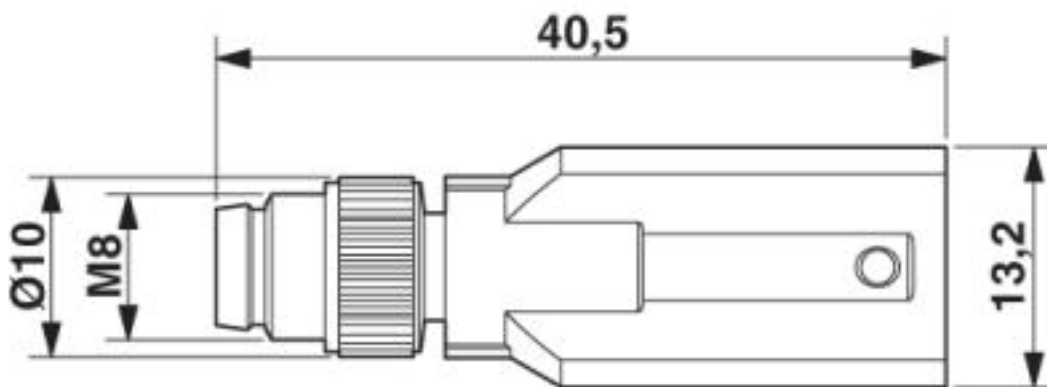


PABA BU/15 CUS - 0824441



## Drawings

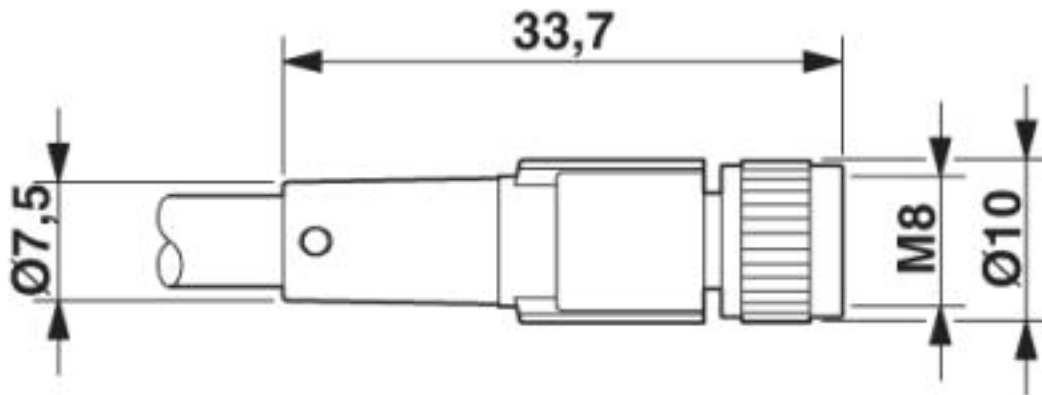
Dimensioned drawing



Plug M8 x 1, Y-distributor

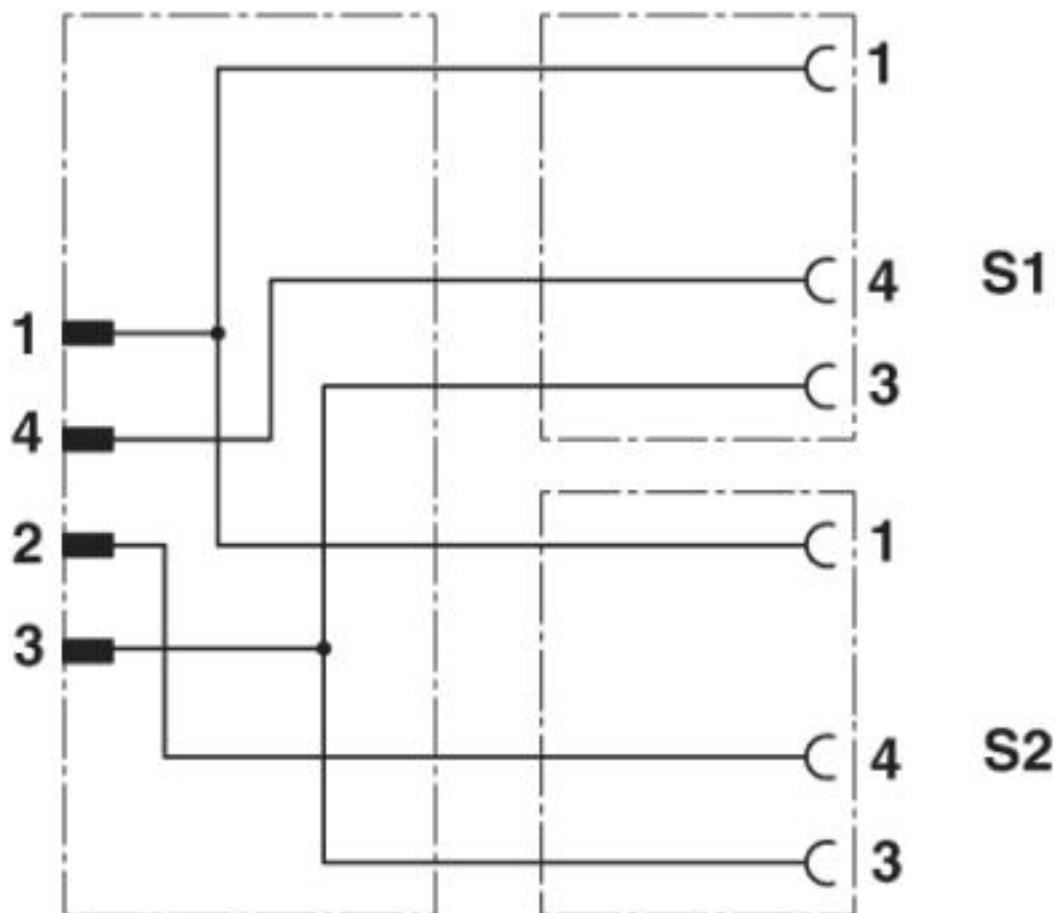
# Sensor/Actuator cable - SAC-3P-M8Y/2X0,6-PUR/M 8FS - 1458677

Dimensioned drawing



Socket M8 x 1, straight

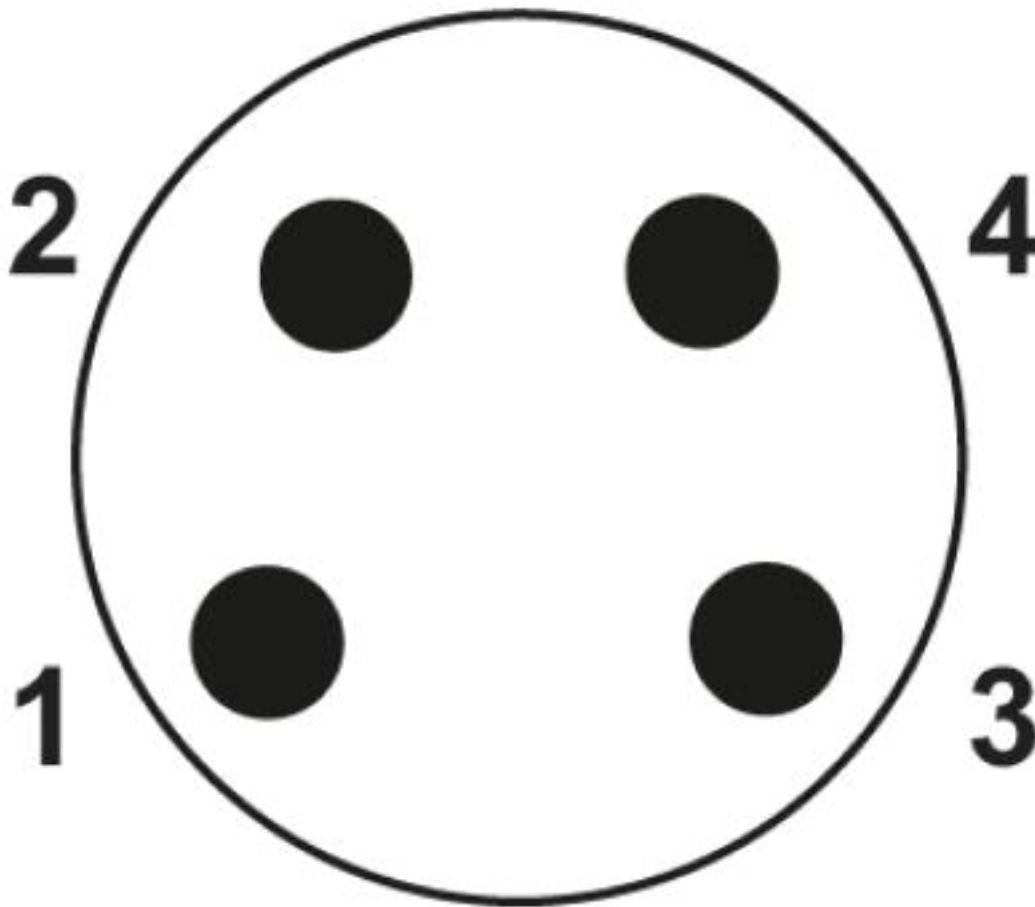
Circuit diagram



Contact assignment of the M8 plugs and the M12 sockets

# Sensor/Actuator cable - SAC-3P-M8Y/2X0,6-PUR/M 8FS - 1458677

Schematic diagram

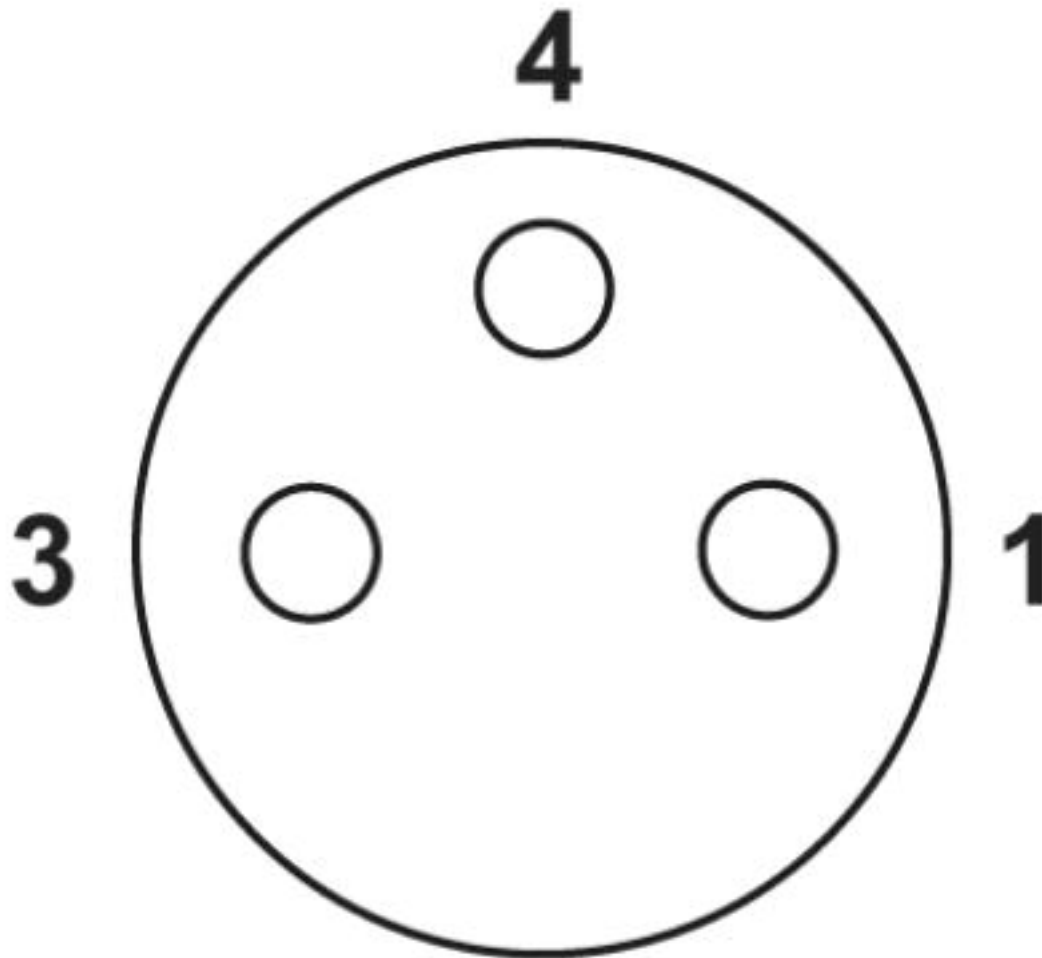


Pin assignment M8 plug, 4-pos., view male side



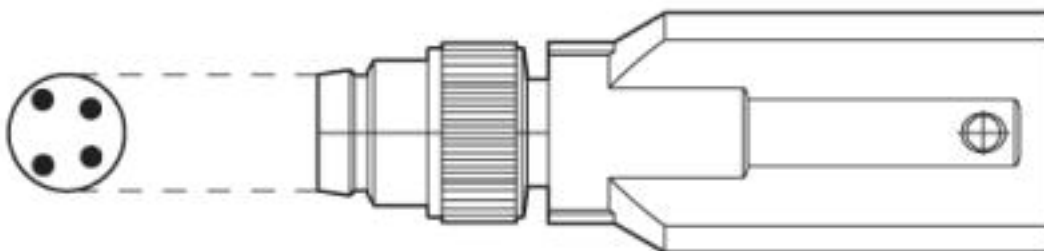
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Schematic diagram



Pin assignment M8 socket, 3-pos., view female side

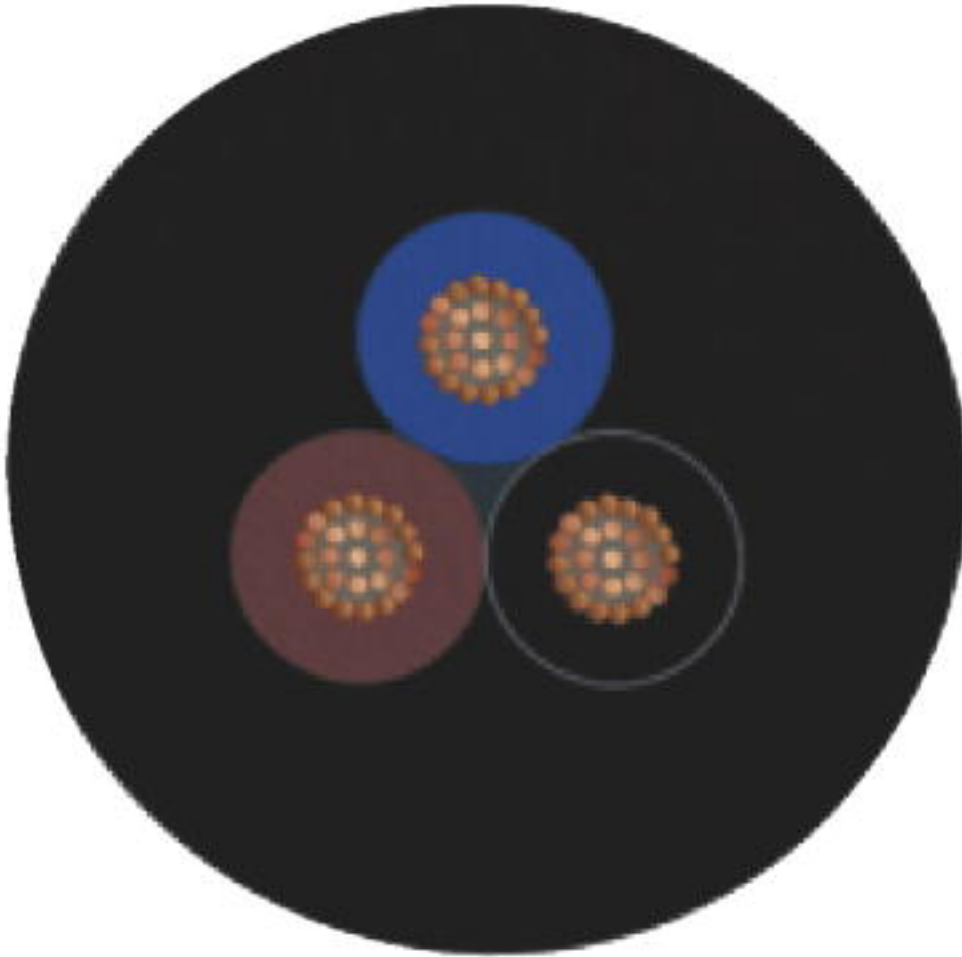
Schematic diagram



Alignment of the connector pin assignment

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Cable cross section



PUR halogen-free black [PUR]

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