

Sensor/Actuator cable - SAC-3P-M12MS/ 1,5-PUR SH - 1682650

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Sensor/Actuator cable, 3-position, PUR halogen-free, Black-gray RAL 7021, shielded, Plug straight M12, A-coded, on Free cable end, Cable length: 1.5 m

Product Features

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable
- ✓ Reliable signal transmission – 360° shielding in environments with electromagnetic interference

Key commercial data

package_quantity	1
GTIN	4017918168933

Technical data

Dimensions

Length of cable	1.5 m
Stripping length of the free conductor end	50 mm

Ambient conditions

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

General

Rated current at 40°C	4 A
Rated voltage	250 V
Number of positions	3
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	Unwired
Surge voltage category	II
Pollution degree	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

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Technical data

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

Cable

Cable type	PUR halogen-free black shielded
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y-VI-C-VI-11Y
UL AWM style	20549
Conductor cross section	3x 0.34 mm ² (signal line)
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.27 mm ±0.02 mm (signal line)
Thickness, insulation	≥ 0.21 mm (Core insulation)
Thickness, insulation	approx. 1.1 mm (Outer cable sheath)
Wire colors	brown, blue, black
Overall twist	3 wires, twisted
Shielding	Braided copper wires
Optical shield covering	85 %
External sheath, color	Black-gray RAL 7021
External cable diameter D	5.9 mm ±0.15 mm
Smallest bending radius, fixed installation	29.5 mm
Smallest bending radius, movable installation	59 mm
Number of bending cycles	4000000
Bending radius	59 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²
Cable weight	44 kg/km
Outer sheath, material	PUR
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Conductor resistance	max. 58 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	Flexible cable conduit capable
Special properties	Silicone-free

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Technical data

Cable

Special properties	Free of substances which would hinder coating with paint or varnish
Flame resistance	in accordance with DIN UL-Style 20549
Halogen-free	in accordance with DIN VDE 0472 part 815
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
Other resistance	hydrolysis and microbe resistant
Other resistance	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
Ambient temperature (operation)	-25 °C ... 80 °C (cable, flexible installation)

classifications

eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27061801

ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

approvals

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

Approval details

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approvals

UL Listed 	
Nominal voltage UN	300 V
Nominal current IN	4 A
mm²/AWG/kcmil	

cUL Listed 	
Nominal voltage UN	300 V
Nominal current IN	4 A
mm²/AWG/kcmil	

GOST 
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cULus Listed 
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accessories

Protective cap

PROT-M12 FS-PA-CHAIN - 1430873



Safety locking

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accessories

SAC-M12-EXCLIP-M - 1558988



Conductor marking

PABA WH/15 - 1013151



PABA YE/15 - 1013698



PABA RD/15 - 1013944



Marker carrier cable

PATG 2/15 - 1013038



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accessories

PATG 3/15 - 1013041



PATG 4/15 - 1013054



Marker pen

B-STIFT - 1051993



Cutting tools

CUTFOX-S VDE - 1212207



Stripping tool

WIREFOX SAC - 1212623



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accessories

WIREFOX 10 - 1212150



Torque tool

TSD 04 SAC - 1208429



TSD-M 1,2NM - 1212224



Screwdriver tools

TSD-M SAC-BIT ADAPTER - 1212600



SAC BIT M12-D15 - 1208432



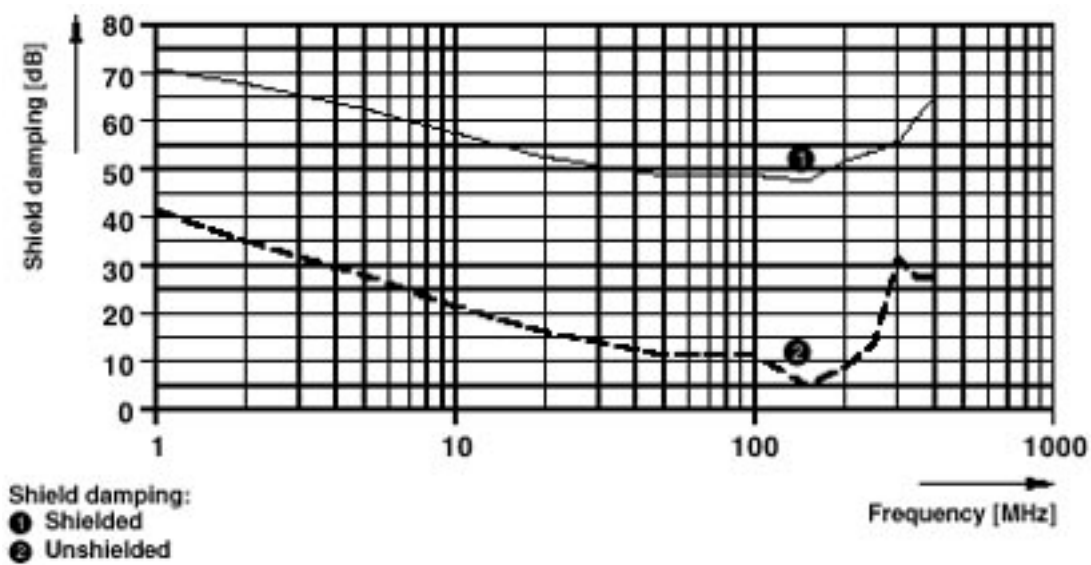
Sensor/Actuator cable - SAC-3P-M12MS/ 1,5-PUR SH - 1682650

accessories

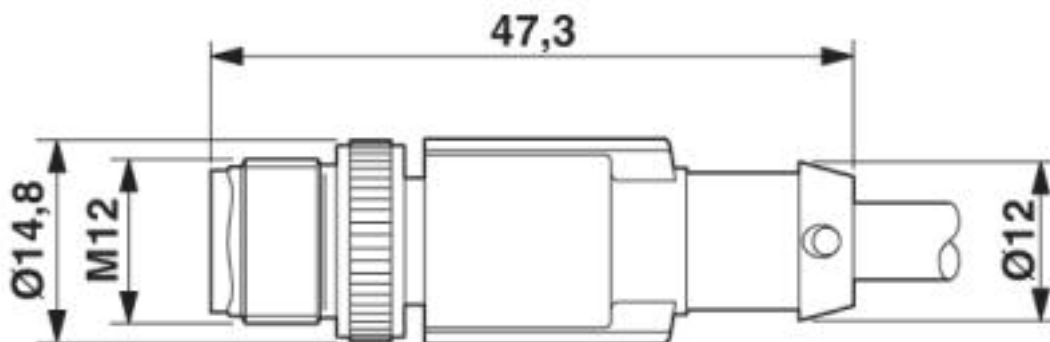
WIREFOX SAC-1 - 1212757

Drawings

Diagram



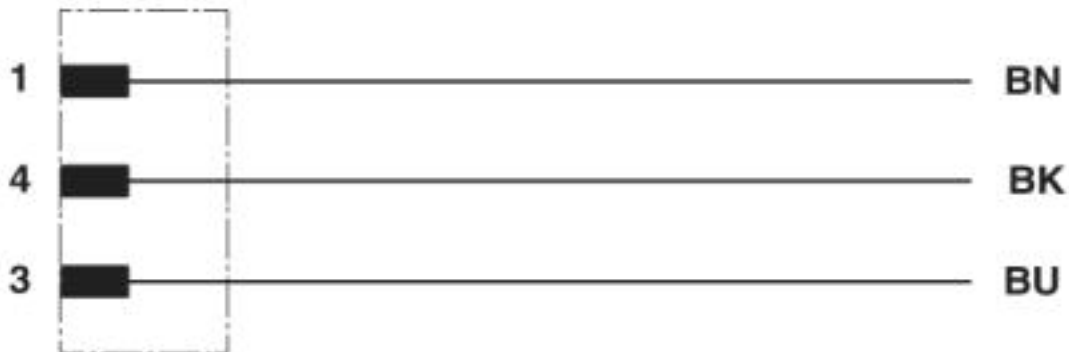
Dimensioned drawing



Plug, M12 x 1, straight, shielded

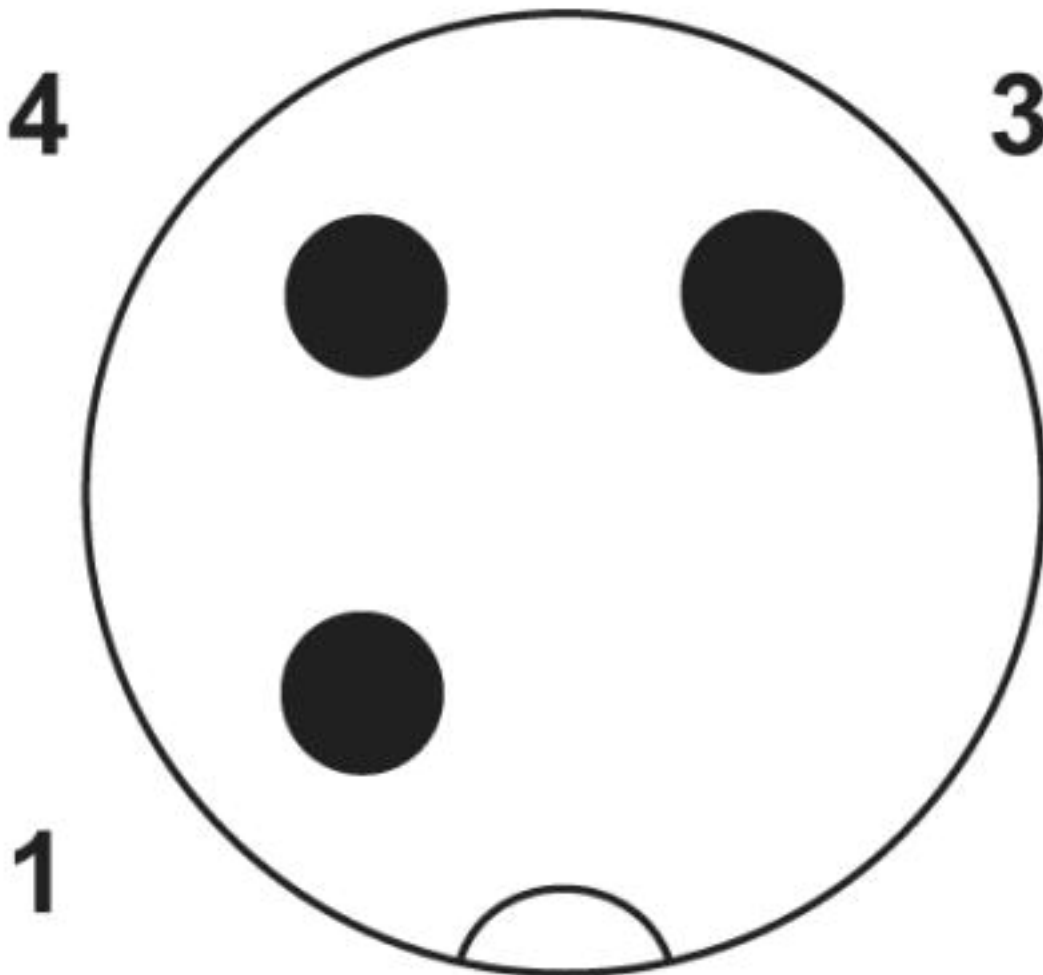
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Circuit diagram



Contact assignment of the M12 plug

Schematic diagram



Pin assignment M12 plug, 3-pos., A-coded, view male side

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Cable cross section



PUR halogen-free black shielded [PUR]

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