Sensor/Actuator cable - SAC-4P-M12MS/ 1,5-PUR SH - 1682715

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Sensor/Actuator cable, 4-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	4017918168995

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	4
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
Sealing material	NBR

Cable

Cable type	PUR halogen-free black shielded
Cable type (abbreviation)	PUR
Cable abbreviation	Li9Y-V1-C-V1-11Y
UL AWM style	20549 / 10493 (80°C/300 V)
Conductor cross section	4x 0.34 mm² (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 mm (Outer cable sheath)
Wire colors	brown, white, blue, black
Overall twist	4 wires, twisted
Shielding	Tinned copper braided shield
Optical shield covering	85 %
External sheath, color	Black-gray RAL 7021
External cable diameter D	5.9 mm ± 0.2 mm
Smallest bending radius, fixed installation	29.5 mm
Smallest bending radius, movable installation	59 mm
Number of bending cycles	2000000
Bending radius	59 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s²
Cable weight	46 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)
Working capacitance	≤ 80 pF (Conductor-Conductor)
Working capacitance	≤ 135 pF (Wire/shield)
Wave impedance	≥ 62 Ω (f = 10 MHz)
Inductance	approx. 0.75 mH (f = 1 kHz)

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Technical data

Cable

Nominal voltage, cable	≤ 300 V
Test voltage, cable	≥ 3000 V
Special properties	Flexible cable conduit capable
Special properties	Silicone-free
Special properties	Free of substances which would hinder coating with paint or varnish
Special properties	Low adhesion surface
Flame resistance	In accordance with UL FT-2
Halogen-free	in accordance with DIN VDE 0472 part 815
Halogen-free	in accordance with DIN EN 50267-2-1
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	Resistant to salt water
Other resistance	partly UV-resistant in accordance with DIN EN ISO 4892-2-A
Other resistance	abrasion-resistant
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

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approvals

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

Approval details

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

cULus Listed

accessories

Protective cap

PROT-M12 FS-PA-CHAIN - 1430873



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accessories

Safety locking

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



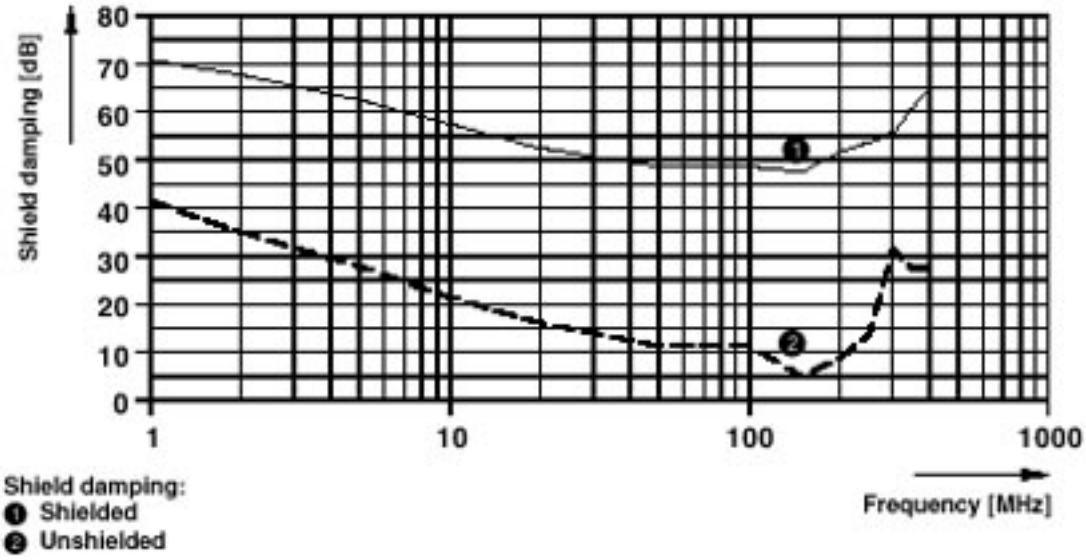
Sensor/Actuator cable - SAC-4P-M12MS/ 1,5-PUR SH - 1682715

accessories

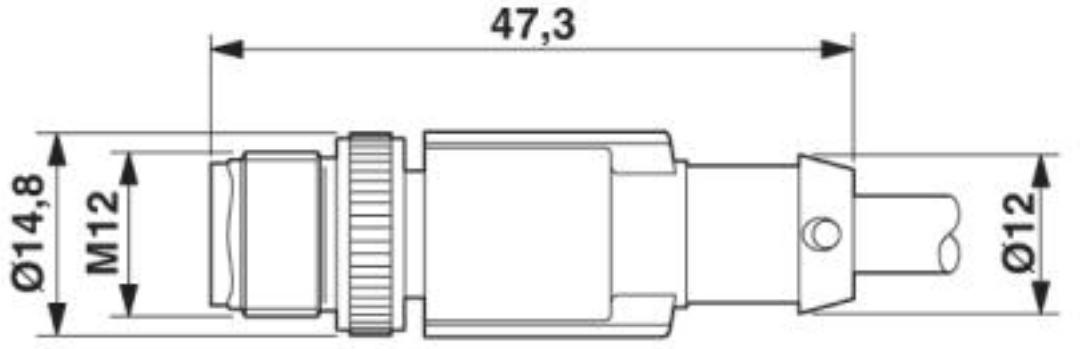
WIREFOX SAC-1 - 1212757

Drawings

Diagram



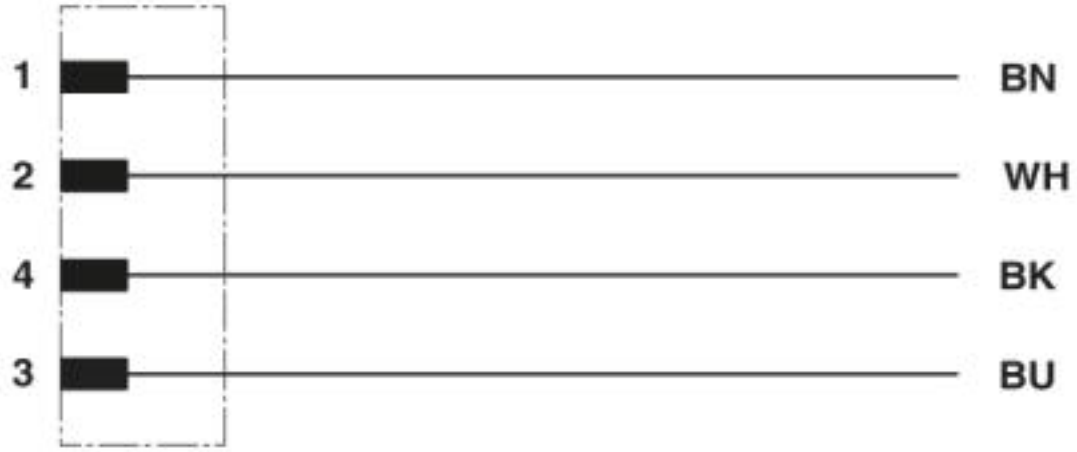
Dimensioned drawing



Plug, M12 x 1, straight, shielded

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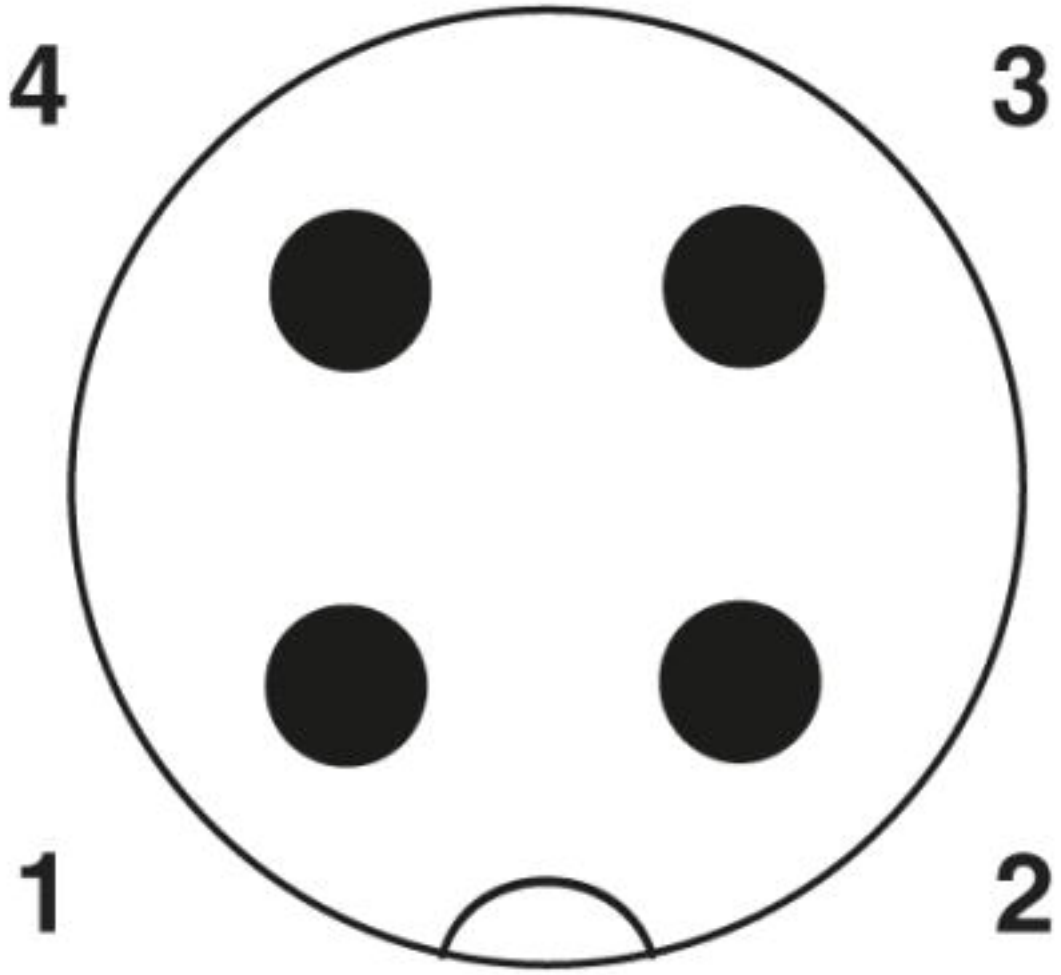
Circuit diagram



Contact assignment of the M12 plug

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Schematic diagram



Pin assignment M12 plug, 4-pos., A-coded, view plug side

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Cable cross section



PUR halogen-free black shielded [PUR]

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