

Sensor/Actuator cable - SAC-8P-M12MS/ 2,0-28X/M12FS OD - 1407277

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Sensor/Actuator cable, 8-position, PE-X halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M12, A-coded, Cable length: 2 m, for outdoor applications, with high-grade steel knurl

Why buy this product

- Easy and safe: 100% electrically tested plug-in components
- Corrosion protection for all exposed metal parts, thanks to the use of stainless steel type 1.4404
- Robust throughout: resistant to oil, UV, and ozone, withstands temperatures from -40°C to +105°C

Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 773959
Weight per Piece (excluding packing)	147.8 g
Weight per piece (including packing)	147.8 g
Country of origin	Poland
Note	Made to Order (non-returnable)

Technical data

Dimensions

Length of cable	2 m
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Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (Plug / socket)
	-40 °C ... 85 °C (On sudden changes in temperature (according to IEC 60512-11-4))
Degree of protection	IP65
	IP67
	IP68
	IP69K

General

Rated current at 40°C	2 A
Rated voltage	30 V
Number of positions	8

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Technical data

General

Insulation resistance	$\geq 100 \text{ M}\Omega$
Coding	A - standard
Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Protective circuit/component	Unwired
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

Material

Flammability rating according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material of grip body	PP
Material, knurls	Stainless steel
Sealing material	FPM

Standards and Regulations

Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101
Flammability rating according to UL 94	V0

Cable

Cable type	PE-X black
Cable type (abbreviation)	28X
Cable abbreviation	Li2X2X
Conductor cross section	8x 0.25 mm ²
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Core diameter including insulation	1.17 mm $\pm$ 0.02 mm
Thickness, insulation	approx. 0.25 mm (Core insulation)
Wire colors	white, brown, green, yellow, gray, pink, blue, red
Overall twist	8 wires around filler to the core
Length of twist, overall twist	67 mm
External sheath, color	black-gray RAL 7021
Outer sheath thickness	approx. 1.3 mm
External cable diameter D	6.8 mm $\pm$ 0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Number of bending cycles	2000000
Minimum bending radius, drag chain applications	10 x D

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Technical data

Cable

Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²
Cable weight	65 kg/km
Outer sheath, material	PE-X
Material, filler	PP yarn
Material conductor insulation	PE-X
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Conductor resistance	≤ 78 Ω/km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage, cable	≥ 3000 V AC (Spark test)
Flame resistance	According to DIN EN 60332-1-2
	According to DIN EN 50266-2-5
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Resistance to oil	According to DIN EN 60811-2-1, 168 h at 100°C
	According to DIN EN 50306
Other resistance	Resistance to fuels according to IEC 60811, 168 h at 70°C
	UV resistant According to DIN VDE 0276-605
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
	-15 °C ... 105 °C (cable, flexible installation)
	20 °C ±5°C (cable, drag chain applications)

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	27279218
eCl@ss 9.0	27060311

ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

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Classifications

UNSPSC

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

Approvals

Approvals

Approvals

GL

Ex Approvals

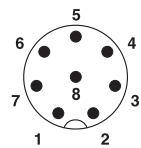
Approvals submitted

Approval details

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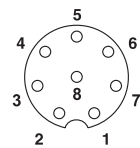
Drawings

Schematic diagram



Pin assignment M12 plug, 8-pos., A-coded, view plug side

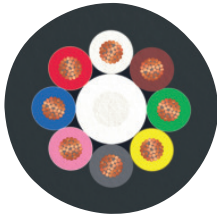
Schematic diagram



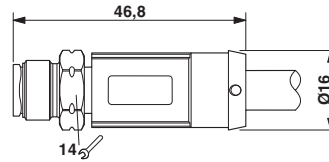
Pin assignment M12 socket, 8-pos., A-coded, view female side

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Cable cross section



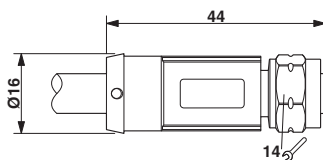
Dimensional drawing



PE-X black [28X]

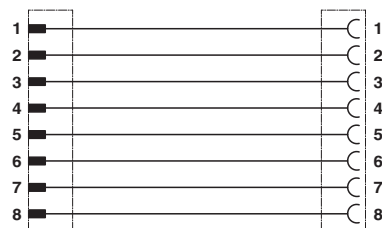
M12 x 1 plug, straight

Dimensional drawing



M12 x 1 socket, straight

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

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