

Sensor/Actuator cable - SAC-5P-M12MS/ 1,5-802/M12FR - 1454532

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Sensor/Actuator cable, 5-position, PUR halogen-free, welding sputter-resistant, highly flexible, Gray RAL 7001, Plug straight M12, A-coded, on Socket angled M12, A-coded, Cable length: 1.5 m, for robots and drag chains

Product Features

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Flexible: cable supports a high degree of torsion and bending
- ✓ Reliable solution for the body shop as cable is resistant to welding sparks



Key commercial data

Packing unit	1 PCE
Catalog page	Page 228 (PC-2011)
GTIN	 4 046356 578233
Custom tariff number	85444290
Country of origin	POLAND

Technical data

General data

Rated current at 40°C	4 A
Rated voltage	60 V
Number of positions	5
Volume resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Length of cable	1.5 m
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

General characteristics

Standards/regulations	M12 plug-in connector IEC 61076-2-101
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Technical data

General characteristics

Coding	A - standard
Surge voltage category	II
Pollution degree	3
Degree of protection	IP65/IP68/IP69K
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 plug-in connector)
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
Status display	No

Conductor data

Note	As a result of the extremely rugged outer sheath, this cable should only be stripped in 5 cm steps.
Cable type	PUR, halogen-free, highly stranded, resistant to welding sparks, gray
Cable type (abbreviation)	802
Cable abbreviation	Li12Y11Y-HF
Conductor cross section	5x 0.34 mm ² (signal line)
AWG signal line	22
Conductor structure signal line	42x 0.10 mm
Core diameter including insulation	1.3 mm ±0.05 mm (signal line)
Wire colors	Black, brown, blue, white, green/yellow
Overall twist	5 wires around filler to the core
External sheath, color	Gray RAL 7001
External cable diameter D	5.1 mm ± 0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	5 x D
Number of bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s ²
Torsion force	± 360 °/m
Outer sheath, material	PUR
Material conductor insulation	PES

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Technical data

Conductor data

Conductor material	Bare Cu litz wires
Insulation resistance	≥ 20 MΩ*km
Conductor resistance	approx. 53 Ω/km
Nominal voltage, conductor	300 V
Test voltage, conductor	1200 V
Special properties	Sheath resistant to welding beads, can be recycled, matt, without adhesion, wear-resistant, flame resistant and self-extinguishing
Special properties	Free from silicone and cadmium
Special properties	Free of substances which would hinder coating with paint or varnish
Flame resistance	DIN VDE 0472 part 804, test type B
Flame resistance	IEC 60332-1
Flame resistance	In accordance with UL FT-2
Halogen-free	The cable is halogen-free
Resistance to oil	As per VDE 0472 Part 803
Other resistance	Highly resistant to acids, alkaline solutions and solvents
Ambient temperature (operation)	-40 °C ... 90 °C (cable, fixed installation)
Ambient temperature (operation)	-30 °C ... 90 °C (cable, flexible installation)
Ambient temperature (operation)	to 120 °C (for 3000 h)

Classifications

ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

UNSPSC

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

eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801

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Classifications

eCl@ss

eCl@ss 6.0	27279218
eCl@ss 7.0	27279218

Approvals

Approvals

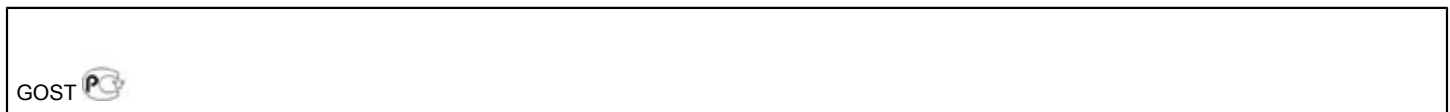
Approvals

GOST

Ex Approvals

Approvals submitted

Approval details



Accessories

Accessories

Protection and sealing elements

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 sockets



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Accessories

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



Tools

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

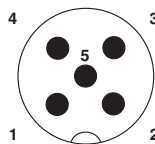
Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

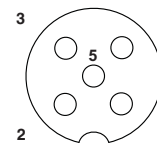
Drawings

Schematic diagram



Pin assignment M12 male connector, 5-pos., A-coded, male side

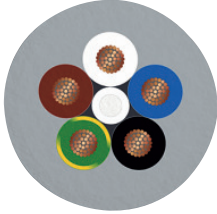
Schematic diagram



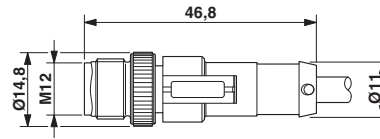
Pin assignment M12 socket, 5-pos., A-coded, socket side view

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Cable cross section



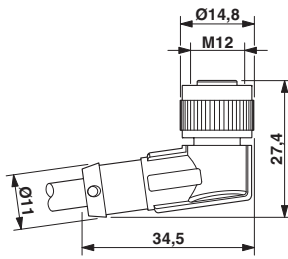
Dimensioned drawing



PUR, halogen-free, highly stranded, resistant to welding sparks, gray [802]

M12 x 1 plug, straight

Dimensioned drawing



Circuit diagram



Contact assignment of the M12 plug and the M12 socket

M12 x 1 socket, angled