

## Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR P - 1442780

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Sensor/Actuator cable, 5-position, PUR halogen-free, Black-gray RAL 7021, Free cable end, on Socket angled M12, A-coded, Cable length: 10 m, with plastic knurl

### Product Features

- ✓ Easy and safe: 100% electrically tested plug-in components
- ✓ Our standard: robust halogen-free PUR cable
- ✓ Save weight – our plug-in connectors with light plastic knurl



### Key commercial data

Packing unit	1 PCE
Catalog page	Page 138 (PC-2011)
GTIN	 4 046356 535694
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	10 m
Stripping length of the free conductor end	50 mm
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

#### General characteristics

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### Technical data

#### General characteristics

Standards/regulations	M12 plug-in connector IEC 61076-2-101
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	Polyamide
Sealing material	NBR
Status display	No

#### Conductor data

Cable type	PUR halogen-free black
Cable type (abbreviation)	PUR
UL AWM style	20549
Conductor cross section	5x 0.34 mm <sup>2</sup> (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	approx. 0.7 mm
Wire colors	brown, white, blue, black, green-yellow
External sheath, color	Black-gray RAL 7021
External cable diameter D	5 mm ±0.15 mm
Smallest bending radius, fixed installation	25 mm
Smallest bending radius, movable installation	50 mm
Number of bending cycles	4000000
Bending radius	50 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s <sup>2</sup>
Cable weight	35 kg/km
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 16 GΩ*km (at 20 °C)

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### Technical data

#### Conductor data

Conductor resistance	max. 58 Ω/km (at 20 °C)
Nominal voltage, conductor	300 V
Test voltage, conductor	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	Flexible
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	Resistant to salt water
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

#### ETIM

ETIM 2.0	EC000830
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
eCl@ss 6.0	27279218

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## Classifications

eCl@ss

eCl@ss 7.0	27279218
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## Approvals

Approvals

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Approvals

GOST

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Ex Approvals

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Approvals submitted

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## Approval details

GOST 
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## Accessories

Accessories

Fuse

Fuse clip - SAC-M12-EXCLIP-F - 1558991



Fuse clip for the socket side of various M12 sensor/actuator connectors prevents plug-in connections being interrupted without using a tool

## Marking

## Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR P - 1442780

### Accessories

Insert label - PABA WH/15 - 1013151



Insert label, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

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Insert label - PABA YE/15 - 1013698



Insert label, Strip, yellow, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

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Insert label - PABA RD/15 - 1013944



Insert label, Strip, red, Unlabeled, Can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

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Conductor marker carrier - PATG 2/23 - 1013850



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 2-4 mm, Lettering field: 4 x 23 mm

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Conductor marker carrier - PATG 3/23 - 1013863



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 4-7 mm, Lettering field: 4 x 23 mm

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## Sensor/Actuator cable - SAC-5P-10,0-PUR/M12FR P - 1442780

### Accessories

Conductor marker carrier - PATG 4/23 - 0808011



Conductor marker carrier, transparent, Unlabeled, Mounting type: Slide on, Cable diameter: 6-10 mm, Lettering field: 4 x 23 mm

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Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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### Protection and sealing elements

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



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

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### Tools

Cable-cutting tool - CUTFOX-S VDE - 1212207



Diagonal cutter for copper and aluminum conductors, VDE-tested

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Stripping tool - WIREFOX SAC - 1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

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### Accessories

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Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm<sup>2</sup>, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid, replaceable stripping blade

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Torque screwdriver - TSD 04 SAC - 1208429



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

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Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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Tool - SAC BIT M12-D15 - 1208432



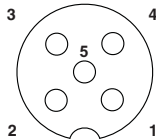
Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

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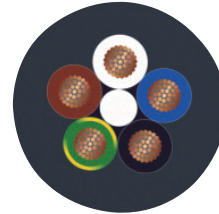
## Drawings

Schematic diagram



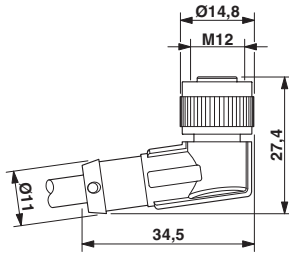
Pin assignment M12 socket, 5-pos., A-coded, socket side view

Cable cross section



PUR halogen-free black [PUR]

Dimensioned drawing



M12 x 1 socket, angled

Circuit diagram



Contact assignment of the M12 sockets