PHŒNIX CONTACT

Sensor/Actuator cable - SAC-5P-M12MS/ 5,0-PUR P - 1442418

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

Key commercial data

Packing unit	0
Minimum order quantity	1
Catalog page	Page 138 (PC-2011)
GTIN	4 046356 534994
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	$\leq$ 5 mΩ
Insulation resistance	$\geq$ 10 MΩ
Length of cable	5 m
Stripping length of the free conductor end	50 mm
Ambient temperature (operation)	-25 °C ... 90 °C (Male connector / female connector)

General characteristics

Standards/regulations	M12 connector IEC 61076-2-101
Coding	A - standard
Surge voltage category	II
Pollution degree	3
Degree of protection	IP65/IP68/IP69K
Insertion/withdrawal cycles	$\geq$ 100
Torque	0.4 Nm (M12 connector)
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF

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General characteristics

Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Polyamide
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 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	Approx. 0.7 mm
External cable diameter	5 mm ±0.15 mm
Wire colors	brown, white, blue, black, green-yellow
External sheath, color	Black-gray RAL 7021
Insulation resistance	$\geq$ 16 GΩ*km (at 20 °C)
Conductor resistance	max. 58 Ω/km (at 20 °C)
Nominal voltage, conductor	300 V
Test voltage, conductor	3000 V
Outer sheath, material	PUR
Conductor material	Bare Cu litz wires
Cable weight	35 kg/km
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/s²
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
Ambient temperature (operation)	-25 °C ... 80 °C (cable, flexible installation)
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

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Other resistance	partly UV-resistant in accordance with DIN EN ISO 4892-2-A

Classifications

eclass

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
eCl@ss 7.0	27279218

etim

ETIM 2.0	EC000830
ETIM 3.0	EC001855
ETIM 4.0	EC001855

unspsc

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

Approvals

Approvals

Approvals

GOST

Ex Approvals

Approvals submitted

Approval details

GOST

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Accessories

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Fuse

Fuse clip - SAC-M12-EXCLIP-M - 1558988

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

Marking

Insert label - PABA WH/15 - 1013151

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

Insert label - PABA YE/15 - 1013698

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

Insert label - PABA RD/15 - 1013944

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

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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Accessories

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

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

Marker pen - B-STIFT - 1051993

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

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

Tools

Cable-cutting tool - CUTFOX-S VDE - 1212207

Diagonal cutter for copper and aluminum conductors, VDE-tested

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Accessories

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

Stripping tool - WIREFOX 10 - 1212150

Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

Torque screwdriver - TSD 04 SAC - 1208429

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

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

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

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
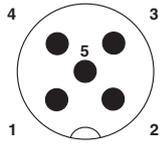
Tool - SAC BIT M12-D15 - 1208432

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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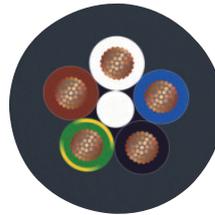
Accessories

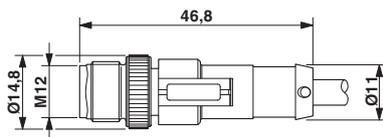## Drawings

Schematic diagram

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

Cable cross section

PUR halogen-free black [PUR]

Dimensioned drawing

M12 x 1 male connector, straight

Circuit diagram

1	BN
2	WH
4	BK
3	BU
5	GN/YE

Contact assignment of the M12 plug