

1683387

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: A, on Socket straight M12, coding: A, PIN 2+4 bridged, cable length: 5 m

Commercial data

Item number	1683387
Packing unit	5 pc
Minimum order quantity	25 pc
Note	Made to order (non-returnable)
Sales key	AF1COA
Product key	AF1COA
GTIN	4017918405236
Weight per piece (including packing)	266.6 g
Weight per piece (excluding packing)	256.48 g
Customs tariff number	85444290
Country of origin	PL



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Technical data

Product properties

Product type	Distributor with cable	
Number of positions	3	
No. of cable outlets	2	
Shielded	no	
Coding	A	
Insulation characteristics		
Overvoltage category	II	
Degree of pollution	3	

Material specifications

Flammability rating according to UL 94	НВ
Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	48 V AC
	60 V DC
Nominal current I _N	4 A

Mechanical properties

Mec	hanica	l data

Insertion/withdrawal cycles	≥ 100
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Signaling

Status display	no
Status display present	no

Connector

Connection 1

Туре	Plug straight M12
Coding type	A

Connection 2

Туре	Socket straight M12
Coding type	A



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Cable/line

Cable length	5 m
UR halogen-free black [PUR]	
Dimensional drawing	
Cable weight	23 kg/km
UL AWM Style	20549
Number of positions	3
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	42x 0.10 mm
AWG signal line	22
Conductor cross section	3x 0.34 mm² (Signal line)
Wire diameter incl. insulation	1.27 mm ±0.02 mm (Signal line)
External cable diameter	3.85 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material wire insulation	PP
Single wire, color	brown, blue, black
Thickness, insulation	≥ 0.21 mm (Core insulation)
	approx. 0.50 mm (Outer cable sheath)
Overall twist	3 wires, twisted
Max. conductor resistance	max. 58 Ω/km (at 20 °C)
Insulation resistance	≥ 100 GΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Smallest bending radius, fixed installation	19 mm
Smallest bending radius, movable installation	38 mm
Dynamic load capacity (bending)	Max. bending cycles: 10000000, Bending radius: 38 mm, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 7 m/s, Acceleration: 10 m/s²
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: ≥2000000, Torsional frequency: 35 cycles/min.
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 758/1581 FT2
	DIN EN 60332-2-2 (20 s)



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Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	Highly resistant to acids, alkaline solutions and solvents
	hydrolysis and microbe resistant
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Special properties	Flexible cable conduit capable
	Silicone-free
	Free of substances which would hinder coating with paint or varnish
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-25 °C 80 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)
	-40 °C 80 °C (cable, fixed installation)
	-5 °C 80 °C (Cable, flexible installation)

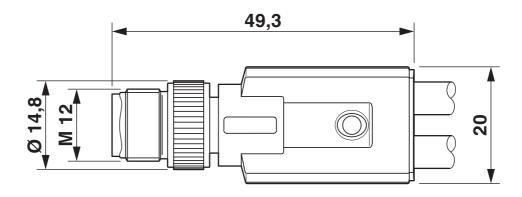


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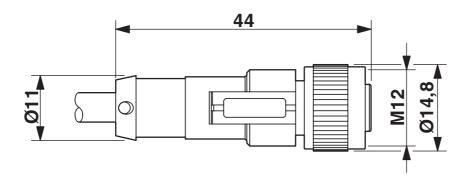
Drawings

Dimensional drawing



Plug M12 x 1, Y distributor

Dimensional drawing



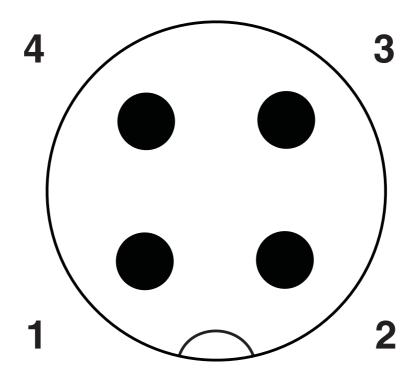
M12 x 1 socket, straight



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Schematic diagram

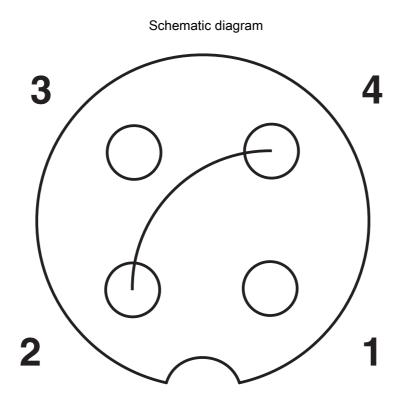


Pin assignment M12 Y plug, 4-pos., A-coded, view plug side

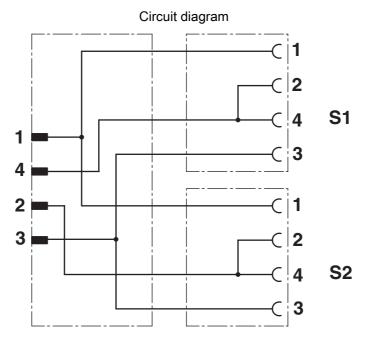


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Pin assignment M12 socket, 3-pos., PIN 2+4 bridged, A-coded, view female side



Contact assignment of the M12 plug and the M12 socket



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/1683387

<u> </u>	UL Listed Approval ID: FILE E 221474				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		300 V	4 A	-	-

• <u>®</u>	cUL Listed Approval ID: FILE E 221474				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		300 V	4 A	-	-

EHC	EAC-RoHS	
LIIL	Approval ID: RU D-DE.HB35.B.00387	



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Classifications

E	CLASS	

	ECLASS-13.0	27060313
E	ГІМ	
	ETIM 9.0	EC001855
UNSPSC		
	UNSPSC 21.0	26121600



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions	
China RoHS		
Environment friendly use period (EFUP)	EFUP-E	
	No hazardous substances above the limits	
EU REACH SVHC		
REACH candidate substance (CAS No.)	No substance above 0.1 wt%	

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