

1404178

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Sensor/actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, coding: A, on free cable end, cable length: 1.5 m

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- · Save space with high-pos. connectors

Commercial data

Item number	1404178
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF01
Product key	AF1BGA
GTIN	4046356680912
Weight per piece (including packing)	53.7 g
Weight per piece (excluding packing)	52.8 g
Customs tariff number	85444290
Country of origin	PL



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Technical data

Product properties

Product type	Sensor/actuator cable
Application	Standard
Number of positions	8
No. of cable outlets	1
Shielded	no
Coding	A
Insulation characteristics	
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	НВ
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	30 V AC
	30 V DC
Nominal current I _N	1.5 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Signaling

Status display	no
Status display present	no

Connection data

Conductor connection

|--|

Connector

Connection 1

Туре	Plug straight M8
Number of positions	8



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Coding type	A
County type	A
Connection 2	
Туре	free cable end
ble/line	
Cable length	1.5 m
PUR halogen-free black [PUR]	
Dimensional drawing	
Cable weight	31.4 kg/km
UL AWM Style	20549
Number of positions	8
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	18x 0.10 mm
AWG signal line	26
Conductor cross section	8x 0.14 mm² (Signal line)
Wire diameter incl. insulation	1 mm ±0.02 mm (Signal line)
External cable diameter	5.10 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021
Conductor material	Bare Cu litz wires
Material, filler	PE
Material wire insulation	PP
Single wire, color	white, brown, green, yellow, gray, pink, blue, red
Thickness, insulation	≥ 0.21 mm (Signal line)
	≥ 0.38 mm (Outer cable sheath)
Overall twist	8 wires around filler to the core
Length of twist, overall twist	58 mm
Max. conductor resistance	139 Ω/km (at 20 °C)
Insulation resistance	1 GΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V AC
Test voltage	≥ 3000 V AC (Spark test)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	25.5 mm
Smallest bending radius, movable installation	51 mm



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Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 51 mm, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s²
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Flame resistance	according to UL 758/1581 (horizontal)
	in accordance with UL 758/1581 FT2
Resistance to oil	According to DIN EN 60811-2-1, 168 h at 100°C
Other resistance	hydrolysis and microbe resistant
	Resistant to salt water
	Low adhesion
	abrasion-resistant
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
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) (male connector/female connector)	-25 °C 85 °C (Plug / socket)

Standards and regulations

M8

Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104

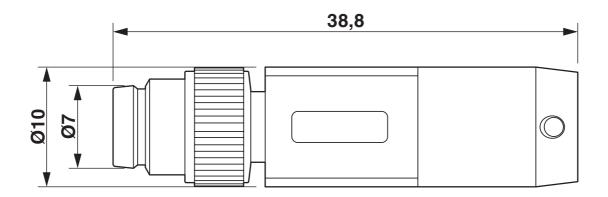


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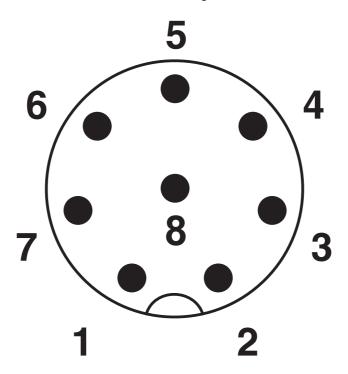
Drawings

Dimensional drawing



M8 x 1 male plug, straight version

Schematic diagram



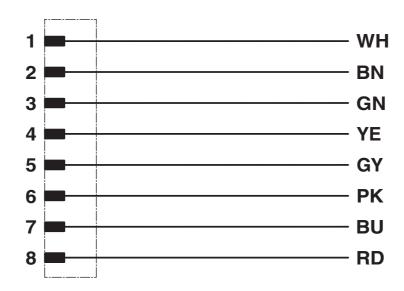
M8 plug pin assignment, 8-pos., view of pin side



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Circuit diagram



Contact assignment of the M8 plug



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1404178

UL Listed Approval ID: FILE E 221474				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine				
	30 V	1.5 A	-	-

CUL Listed Approval ID: FILE E 221474				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine				
	30 V	1.5 A	-	-

COL	EAC-RoHS
CUL	Approval ID: RU D-DE.HB35.B.00387



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Classifications

ECLASS

	ECLASS-13.0	27060311		
	ECLASS-15.0	27060311		
ΕT	ETIM			
	ETIM 9.0	EC001855		
U	NSPSC			

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%
EF3.0 Climate Change	
CO2e kg	1.094 kg CO2e

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