

SAC-3P-M8Y/2X0,3-PUR/M 8FS - Sensor/actuator cable



1458664

<https://www.phoenixcontact.com/us/products/1458664>

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M8, coding: A, on Socket straight M8 and Socket straight M8, cable length: 0.3 m

Commercial data

Item number	1458664
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF01
Product key	BF1BOA
Catalog page	Page 248 (C-2-2019)
GTIN	4046356638012
Weight per piece (including packing)	26.5 g
Weight per piece (excluding packing)	26.5 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Distributor with cable
Application	Standard
Number of positions	3
No. of cable outlets	2
Shielded	no
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Connection data

Tightening torque	0.2 Nm (M8 knurl)
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Material specifications

Flammability rating according to UL 94	HB
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	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A

Signaling

Status display	No
Status display present	No

Connector

Connection 1	
Type	Plug straight M8
Coding type	A

Connection 2

Type	Socket straight M8
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Connection 3

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Type	Socket straight M8
Cable/line	
Cable length	0.3 m
PUR halogen-free black [PUR]	
Dimensional drawing	
Cable weight	18 kg/km
UL AWM Style	20549 / 10493 (80°C/300 V)
Number of positions	3
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross section	3x 0.25 mm ² (Signal line)
Wire diameter incl. insulation	1.17 mm ±0.02 mm
External cable diameter	3.60 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)
Thickness, outer sheath	approx. 0.50 mm
Overall twist	3 wires, twisted
Length of twist, overall twist	40 mm
Max. conductor resistance	≤ 78 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	18 mm
Smallest bending radius, movable installation	36 mm
Max. bending cycles	10000000
Bending radius	44 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	10 m/s ²

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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)
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	hydrolysis and microbe resistant
	Highly resistant to acids, alkaline solutions and solvents
	Resistant to salt water
	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)

Standards and regulations

M8

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

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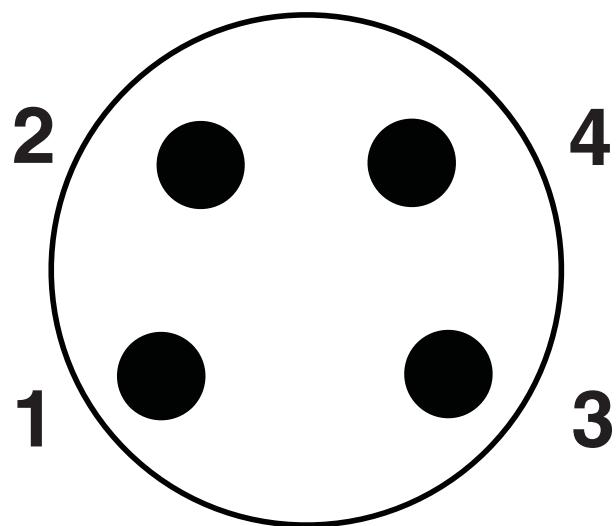


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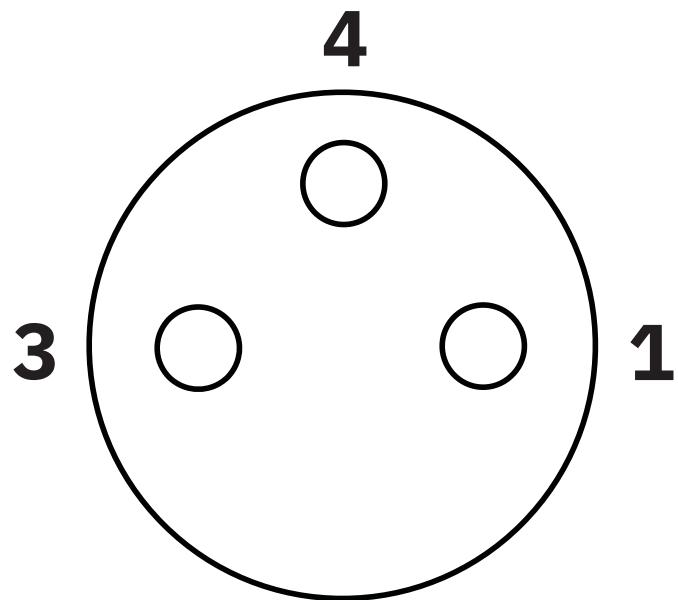
Drawings

Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

Schematic diagram



Pin assignment M8 socket, 3-pos., view female side

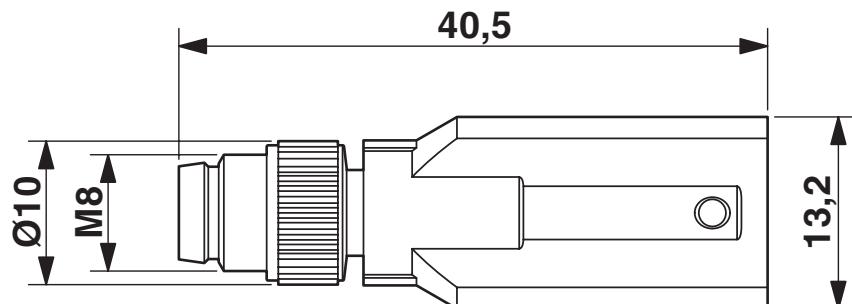
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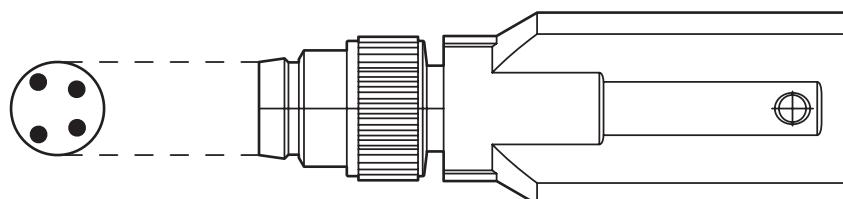
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Dimensional drawing



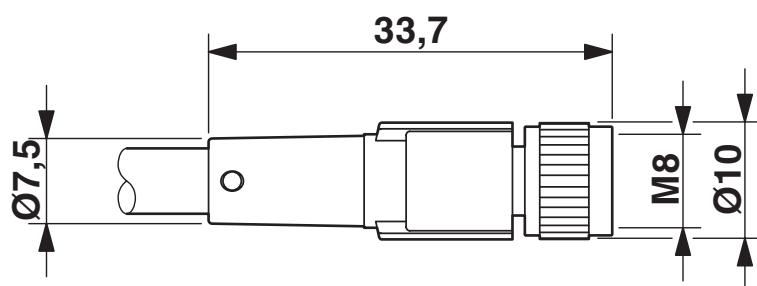
Plug M8 x 1, Y-distributor

Schematic diagram



Alignment of the connector pin assignment

Dimensional drawing



Socket M8 x 1, straight

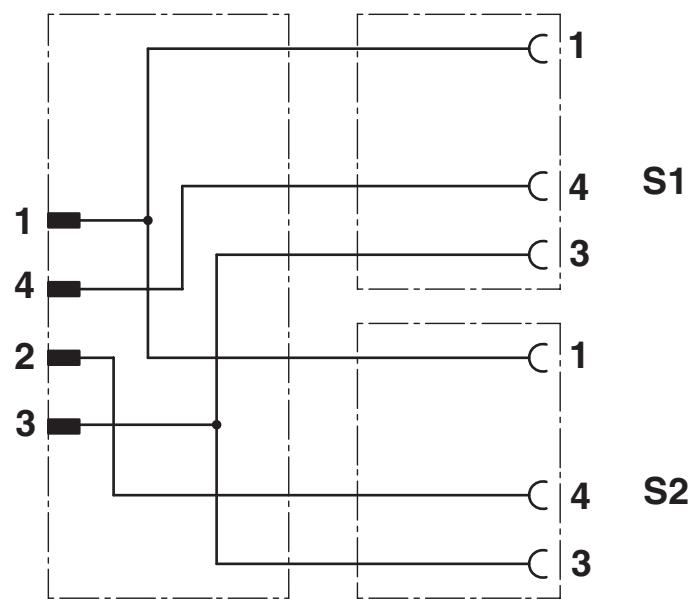
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Circuit diagram



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Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1458664>

UL Listed			
Approval ID: FILE E 221474			
Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
60 V	4 A	-	-

cUL Listed			
Approval ID: FILE E 221474			
Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
60 V	4 A	-	-

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

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27060313
ECLASS-12.0	27060313
ECLASS-13.0	27060313

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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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Accessories

PROT-M8 - Screw plug

1682540

<https://www.phoenixcontact.com/us/products/1682540>



An M8 screw plug for the unoccupied M8 sockets of the sensor/actuator cable, boxes and flush-type connectors

PABA WH/15 - Insert label

1013151

<https://www.phoenixcontact.com/us/products/1013151>



Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 0.6 ... 50 mm, lettering field size: 15 x 4 mm, Number of individual labels: 20

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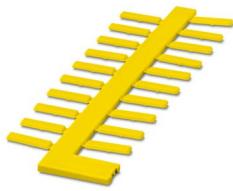
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PABA YE/15 - Insert label

1013698

<https://www.phoenixcontact.com/us/products/1013698>

Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 0.6 ... 50 mm, lettering field size: 15 x 4 mm, Number of individual labels: 20



PABA RD/15 - Insert label

1013944

<https://www.phoenixcontact.com/us/products/1013944>

Insert label, Strip, red, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 0.6 ... 50 mm, lettering field size: 15 x 4 mm, Number of individual labels: 20



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PABA WH/15 CUS - Cable marker

0824444

<https://www.phoenixcontact.com/us/products/0824444>

Cable marker, can be ordered: Strip, white, labeled according to customer specifications, mounting type: thread on, cable diameter range: 0.6 ... 50 mm, lettering field size: 15 x 4 mm



PABA YE/15 CUS - Cable marker

0824447

<https://www.phoenixcontact.com/us/products/0824447>

Cable marker, can be ordered: Strip, yellow, labeled according to customer specifications, mounting type: thread on, cable diameter range: 0.6 ... 50 mm, lettering field size: 15 x 4 mm



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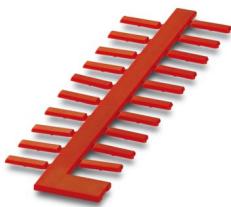
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PABA RD/15 CUS - Cable marker

0824442

<https://www.phoenixcontact.com/us/products/0824442>



Cable marker, can be ordered: Strip, red, labeled according to customer specifications, mounting type: thread on, cable diameter range: 0.6 ... 50 mm, lettering field size: 15 x 4 mm

PABA BU/15 CUS - Cable marker

0824441

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Cable marker, can be ordered: Strip, blue, labeled according to customer specifications, mounting type: thread on, cable diameter range: 0.6 ... 50 mm, lettering field size: 15 x 4 mm

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TSD 02 SAC - Torque screwdriver

1208487

<https://www.phoenixcontact.com/us/products/1208487>

Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors



SAC BIT M8-D10 - Tool

1208461

<https://www.phoenixcontact.com/us/products/1208461>

Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 10 mm, for 4 mm hexagonal drive



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