

SAC-3P-MS/ 1,5-600/M 8FR-2L FB - Sensor/actuator cable



1406500

<https://www.phoenixcontact.com/us/products/1406500>

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Sensor/actuator cable, 3-position, PP-EPDM halogen-free, gray RAL 7035, Plug straight M8, coding: A, with 2 LEDs, on Socket angled M8, coding: A, with 2 LEDs, cable length: 1.5 m, Hygienic design, with plastic knurl

Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- Contamination can be detected quickly – thanks to the light color
- Convenient: increased machine availability thanks to quick and easy diagnostics

Commercial data

Item number	1406500
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF01
Product key	AF1BBA
Catalog page	Page 140 (C-4-2013)
GTIN	4046356780728
Weight per piece (including packing)	42.4 g
Weight per piece (excluding packing)	42 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Sensor/actuator cable
Application	Food processing industry
Number of positions	3
No. of cable outlets	1
Shielded	no
Coding	A

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Material specifications

Seal material	FKM
Material of grip body	PP
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PP
Material for screw connection	Polypropylene

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	24 V DC
Nominal current I_N	4 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Signaling

Status display	2 LEDs
Status display present	yes

Connection data

Conductor connection

Tightening torque	0.2 Nm (M8 connectors)
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Connector

Connection 1

Type	Plug straight M8
Number of positions	3

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Coding type	A
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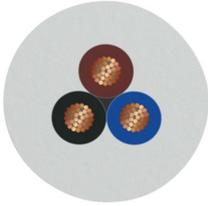
Connection 2

Type	Socket angled M8
Number of positions	3
Coding type	A

Cable/line

Cable length	1.5 m
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Halogen-free PP gray [600]

Dimensional drawing	
Cable weight	19 kg/km
Number of positions	3
Shielded	no
Cable type	Halogen-free PP gray [600]
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 (Signal line)
External cable diameter	4.20 mm ±0.15 mm
Outer sheath, material	PP-EPDM
External sheath, color	gray RAL 7035
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. 0.80 mm
Overall twist	3 wires, twisted
Length of twist, overall twist	40 mm
Max. conductor resistance	78 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	21 mm
Smallest bending radius, movable installation	42 mm

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Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 10 x D, Traversing path: 10 m, Traversing rate: 3 m/s, Acceleration: 10 m/s ²
Dynamic load capacity (torsion)	Torsion: ±270 °/m, Torsion cycles: ≥4000000, Torsional frequency: max.25 Torsion cycles/min
Halogen-free	in accordance with DIN VDE 0472 part 815
	in accordance with DIN EN 50267-2-1
Other resistance	Resistant to cold bending and cold impacts (according to DIN EN 60811-1-4 (-40 °C))
Special properties	FDA compliant according to FDA 21 CFR 177.2600
	highly flexible
	Flexible cable conduit capable
Ambient temperature (operation)	-40 °C ... 105 °C (cable, fixed installation)
	-25 °C ... 105 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
	IP68
	IP69K
Ambient temperature (operation)	-40 °C ... 105 °C (Plug / socket)

Standards and regulations

M8

Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104
Standard designation	Material conformance
Standards/specifications	FDA 21 CFR 177.2600

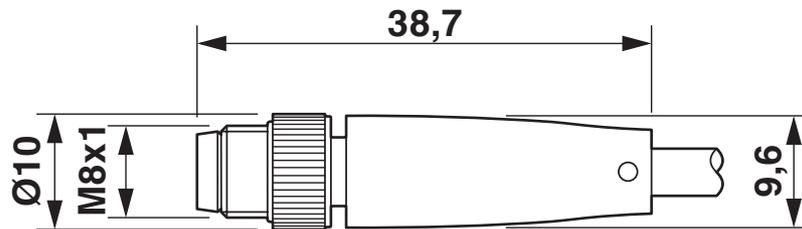
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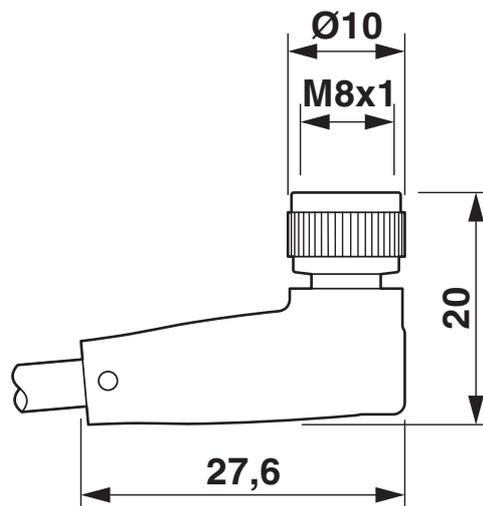
Drawings

Dimensional drawing



M8 x 1 male plug, straight version

Dimensional drawing



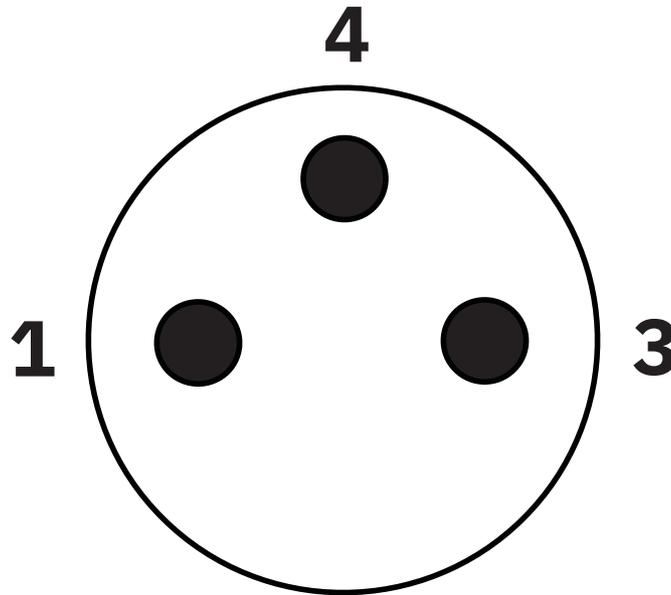
Socket M8 x 1, angled

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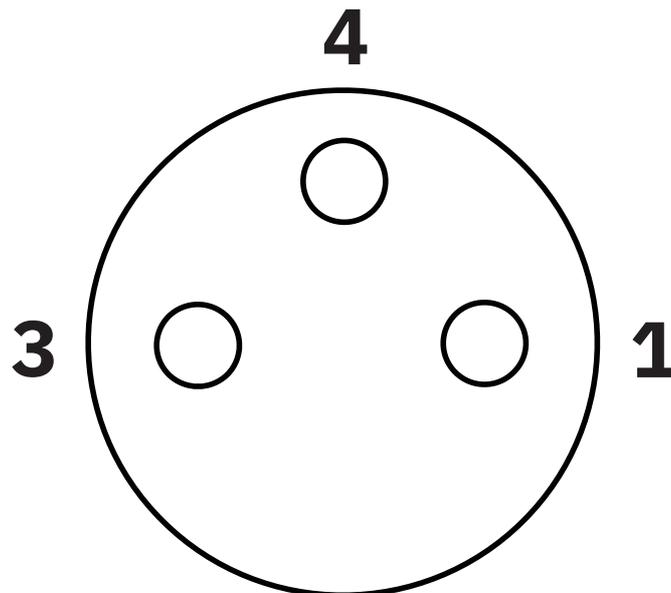
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Schematic diagram



Pin assignment M8 plug, 3-pos., view male side

Schematic diagram



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

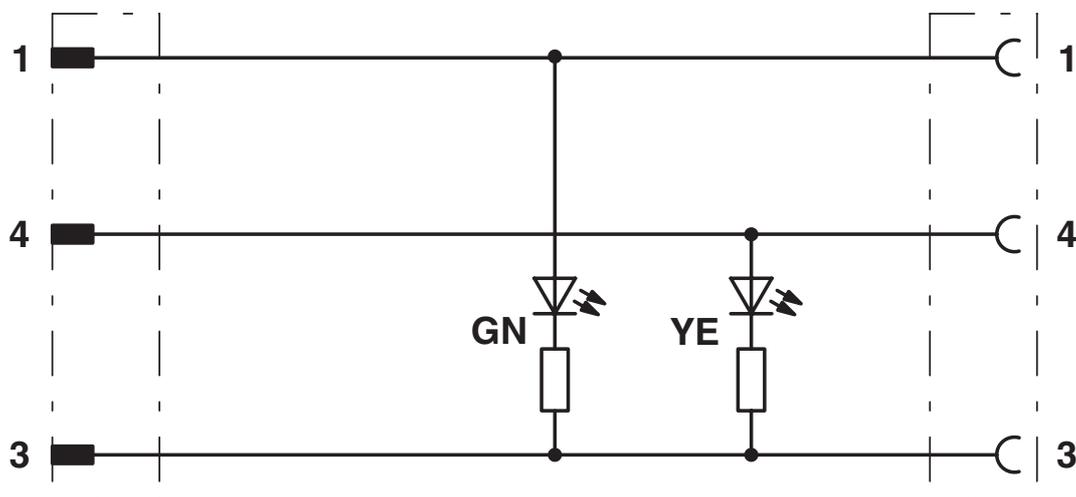
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Circuit diagram



Contact assignment of M8 plugs/sockets

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Approvals

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EAC-RoHS

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

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Classifications

ECLASS

ECLASS-13.0

27060311

ETIM

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
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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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EF3.0 Climate Change

CO2e kg	0.626 kg CO2e
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