

SAC-3P-M12MS/1,0-150/A-1L-Z - Sensor/actuator cable

1400620
<https://www.phoenixcontact.com/pc/products/1400620>

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Sensor/actuator cable, 3-position, PUR halogen-free, irradiated, highly flexible, orange RAL 2003, Plug straight M12, coding: A, with 1 LED, on Valve connector A, with 1 LED, Wiring: Z diode, cable length: 1 m

Commercial data

Item number	1400620
Packing unit	1 pc
Minimum order quantity	100 pc
Product key	BF1DJA
GTIN	4046356509275
Weight per piece (including packing)	64.5 g
Weight per piece (excluding packing)	64.5 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Sensor/actuator cable with valve connector
Number of positions	3
No. of cable outlets	1
Shielded	no
Coding	A

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Material specifications

Flammability rating according to UL 94	HB
Seal material	TPU
Material housing valve plug	TPU
Material of grip body	TPU
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Contact material	CuSn
Valve plug contact insert material	PA 6.6
Contact surface material	Sn
Material for screw connection	Zinc die-cast, nickel-plated

Electrical properties

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

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100 (M12 connector)
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Signaling

Status display	1 LED
Status display present	Yes

Connector

Connection 1

Type	Plug straight M12
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Number of positions	3
Coding type	A

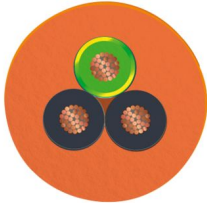
Connection 2

Type	Valve connector A
Number of positions	3
Material	CuSn (Contact) Sn (Contact surface) PA 6.6 (Contact carriers) TPU (Housing)

Cable/line

Cable length	1 m
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PUR irradiated halogen-free orange [150]

Dimensional drawing	
Cable weight	31 kg/km
Number of positions	3
Shielded	no
Cable type	PUR irradiated halogen-free orange [150]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross section	3x 0.5 mm² (Signal line)
Wire diameter incl. insulation	1.46 mm ±0.02 mm (Signal line)
External cable diameter	4.50 mm ±0.15 mm
Outer sheath, material	PUR
External sheath, color	orange RAL 2003
Conductor material	Bare Cu litz wires
Material wire insulation	TPE-E
Single wire, color	black 1, black 2, green/yellow
Thickness, insulation	≥ 0.21 mm (Core insulation) approx. 0.60 mm (Outer cable sheath)
Overall twist	3 wires, twisted
Max. conductor resistance	max. 39 Ω/km (at 20 °C)
Insulation resistance	≥ 100 MΩ*km (at 20 °C)
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 3000 V
Minimum bending radius, fixed installation	5 x D

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Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	23 mm
Smallest bending radius, movable installation	45 mm
Max. bending cycles	5000000
Bending radius	45 mm
Traversing path	10 m
Traversing rate	3 m/s
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with DIN UL-Style 20549
Resistance to oil	in accordance with DIN EN 60811-2-1
Special properties	Silicone-free
	Irradiated
Ambient temperature (operation)	-25 °C ... 80 °C (cable, fixed installation)
	-5 °C ... 80 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-20 °C ... 85 °C (valve plug)

Standards and regulations

M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

Valve connector

Standard designation	Valve connector
Standards/specifications	EN 175301-803

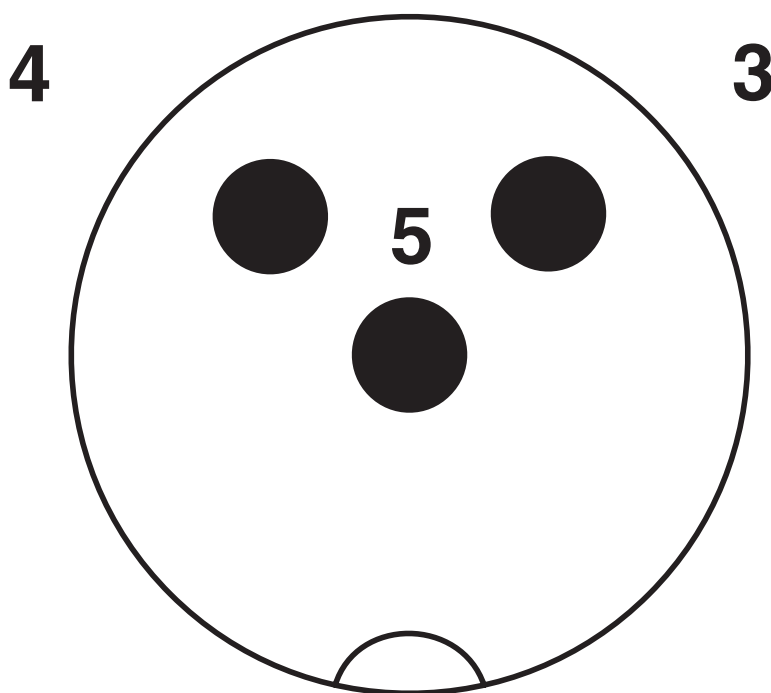
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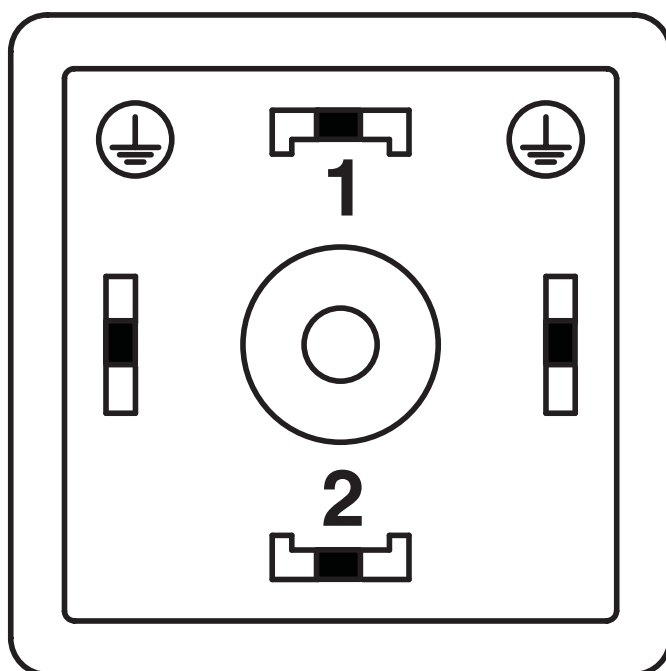
Drawings

Schematic diagram



Pin assignment M12 plug, 3-pos., valve connector

Schematic diagram



Valve connector pin assignment, type A

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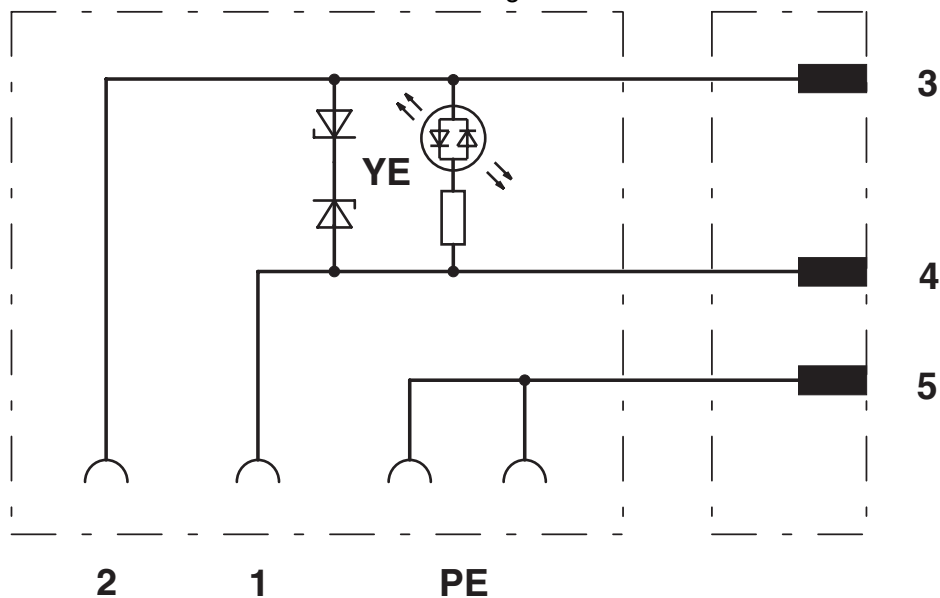
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Dimensional drawing



Plug, M12 x 1, straight, shielded

Circuit diagram

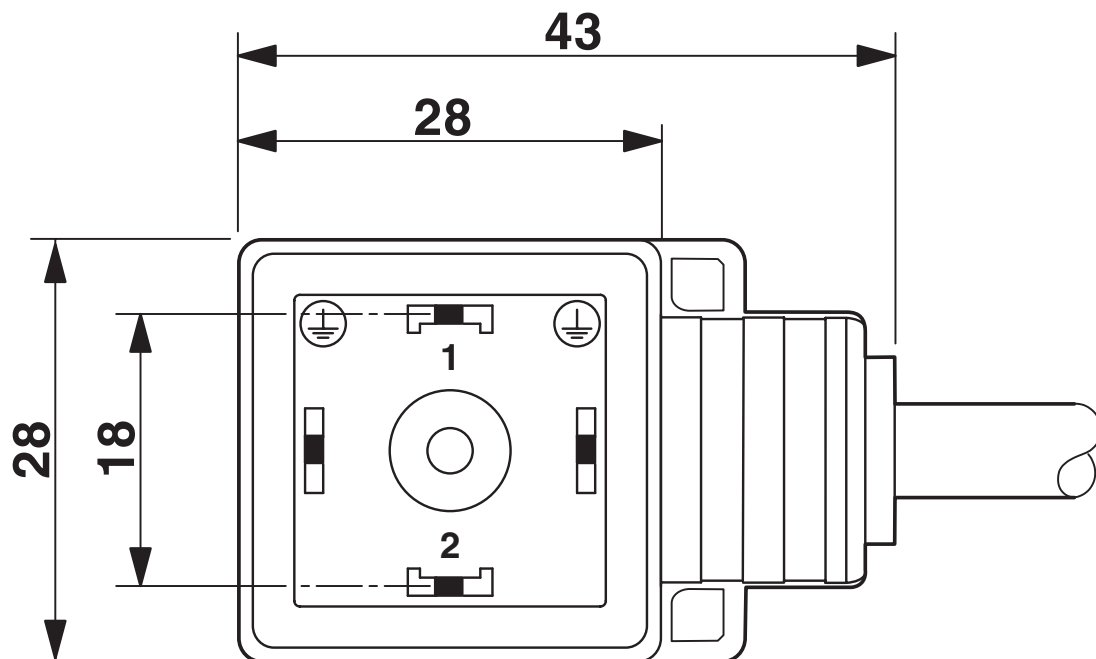


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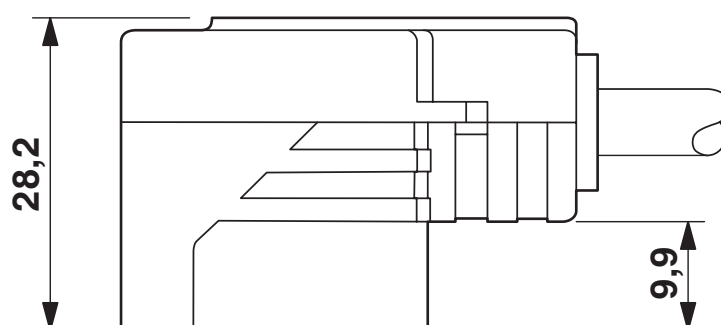
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Dimensional drawing



Valve connector, type A

Dimensional drawing



Valve connector, type A, side view

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Classifications

ECLASS

ECLASS-11.0	27060312
ECLASS-13.0	27060312

UNSPSC

UNSPSC 21.0	31251501
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Accessories

SAC-V-SCREW-M3-29 KNURL - Screw

1403779

<https://www.phoenixcontact.com/pc/products/1403779>

Fillister head screw with plastic knurl, M3 x 40



PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

<https://www.phoenixcontact.com/pc/products/1430873>

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs



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SAC-M12-EXCLIP-M - Locking clip

1558988

<https://www.phoenixcontact.com/pc/products/1558988>



Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

UCT-WMT (23X4) - Conductor marker

0801453

<https://www.phoenixcontact.com/pc/products/0801453>



Conductor marker, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 30

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UC-WMT (23X4) - Conductor marker

0819411

<https://www.phoenixcontact.com/pc/products/0819411>



Conductor marker, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 24

US-WMT (23X4) - Cable marker

0828769

<https://www.phoenixcontact.com/pc/products/0828769>



Cable marker, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 56

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WMTW (23X4)R - Cable marker

0831004

<https://www.phoenixcontact.com/pc/products/0831004>



Cable marker, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: insert, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 3000

SF-BIT-PH 1-70 - Screw insert

1212582

<https://www.phoenixcontact.com/pc/products/1212582>



Screw bit, PH crosshead, E6.3-1/4" drive, size: PH 1 x 70 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

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B-STIFT - Marker pen

1051993

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

TSD 04 SAC - Torque screwdriver

1208429

<https://www.phoenixcontact.com/pc/products/1208429>



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

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TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/pc/products/1212224>



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

TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

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Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

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SAC BIT M12-D15 - Tool

1208432

<https://www.phoenixcontact.com/pc/products/1208432>



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

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