

1413116

<https://www.phoenixcontact.com/us/products/1413116>

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Valve connector A, with 1 LED, Wiring: Freewheeling diode with holding current limiting device, cable length: 5 m, with holding current limiting device for energy reduction

Commercial data

Item number	1413116
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	BF1DAA
Catalog page	Page 234 (C-2-2019)
GTIN	4046356995474
Weight per piece (including packing)	178.9 g
Weight per piece (excluding packing)	171.5 g
Country of origin	DE

Technical data

Product properties

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

Material specifications

Seal material	TPU
Material housing valve plug	TPU
Contact material	CuSn
Valve plug contact insert material	PA 6.6
Contact surface material	Ag

Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	24 V DC $\pm 20 \%$
Nominal current I_N	1 A

Valve connector characteristics

Switch-over time	approx. 200 ms (Initial operating time)
Clock frequency	approx. 2500 Hz (Holding current limiting device)
Switching frequency	max. 5 Hz (Connected valve)
Fixing screws	M3 x 28

Signaling

Status display	1 LED
Status display present	Yes

Connector

Connection 1

Type	free cable end
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Connection 2

Type	Valve connector A
Number of positions	3
Material	CuSn (Contact)
	Ag (Contact surface)
	PBT (Contact carriers)
	TPU (Housing)

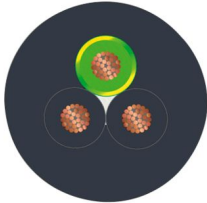
Cable/line

SAC-3P- 5,0-PUR/A-1L-R-ES - Sensor/actuator cable



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Cable length	5 m
PUR halogen-free black [PUR]	
Dimensional drawing	
Cable weight	30 kg/km
UL AWM Style	20549
Number of positions	3
Shielded	no
Cable type	PUR halogen-free black [PUR]
Conductor structure signal line	28x 0.15 mm
AWG signal line	20
Conductor cross section	3x 0.5 mm ²
Wire diameter incl. insulation	1.5 mm ±0.05 mm (Signal line)
External cable diameter	4.50 mm ±0.2 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	black 1, black 2, green/yellow
Overall twist	3 wires, twisted
Max. conductor resistance	39 Ω/km (at 20 °C)
Insulation resistance	min. 20 MΩ*km
Nominal voltage, cable	≤ 300 V
Test voltage	≥ 1200 V
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	22.5 mm
Smallest bending radius, movable installation	45 mm
Max. bending cycles	15000000
Bending radius	50 mm
Traversing path	0.9 m
Traversing rate	5 m/s
Acceleration	30 m/s ²
Halogen-free	in accordance with DIN VDE 0472 part 815
Flame resistance	according to DIN VDE 0482
	According to DIN EN 50265-2-1
Resistance to oil	in accordance with DIN EN 60811-2-1

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Other resistance	largely oil-resistant
	partly UV-resistant (in accordance with DIN EN ISO 4892-2-A)
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67
Ambient temperature (operation)	-25 °C ... 80 °C (valve plug)

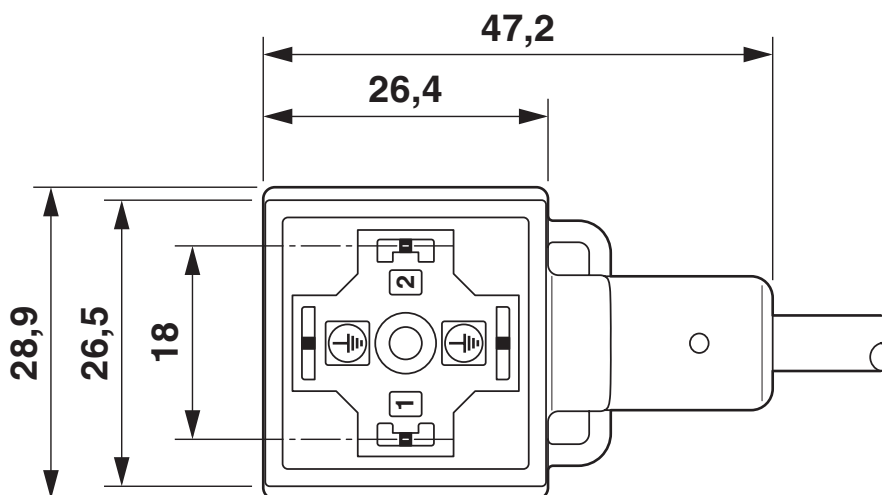
Standards and regulations

Valve connector

Standard designation	Valve connector
Standards/specifications	EN 175301-803

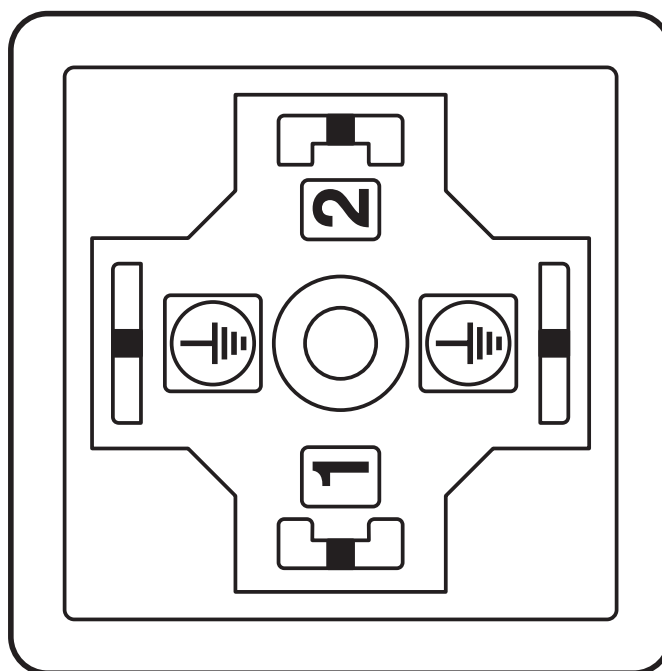
Drawings

Dimensional drawing

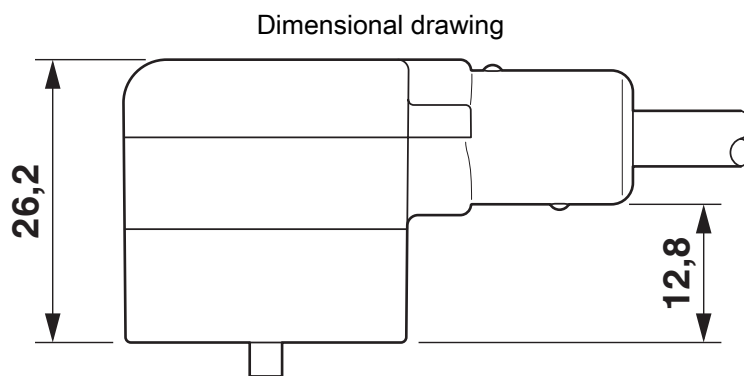
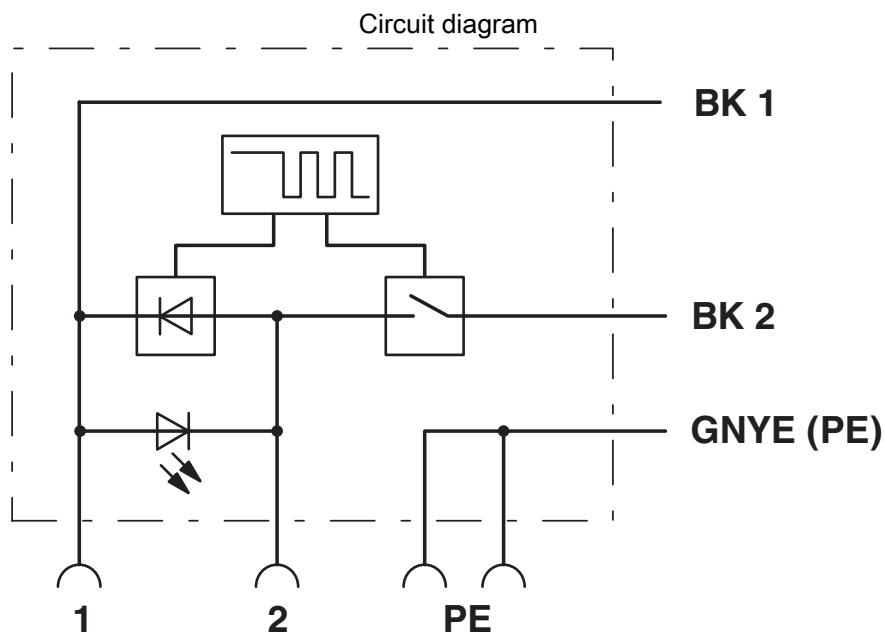


Valve connector, type A

Schematic diagram



Valve connector pin assignment, type A



Valve connector, type A, side view

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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-11.0	27060312
ECLASS-12.0	27060312
ECLASS-13.0	27060312

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	31251500
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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%