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Sensor/actuator cable - SAC-3P-M12MR/1,5-PUR/A-1L-Z

1439353

https://www.phoenixcontact.com/gb/products/1439353

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug angled M12, coding: A, on Valve connector A, with 1 LED, connected with Z diode, cable length: 1.5 m

Commercial Data

Item number	1439353
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1DJA
Product Key	BF1DJA
GTIN	4046356489249
Weight per Piece (including packing)	80 g
Weight per Piece (excluding packing)	73 g
Customs tariff number	85444290
Country of origin	PL

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Technical Data

Product properties

Number of positions	3
No. of cable outlets	1
Shielded	no
Coding	A - standard

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	24 V AC
	24 V DC
Nominal current I_N	4 A
Protective circuit	Z diode

LED signaling

Status display	1 LED
Status display present	yes

Material specifications

Flammability rating according to UL 94	HB
Sealing material	TPU (Seal molded)
Material housing valve plug	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
Cable gland material	Zinc die-cast, nickel-plated

Connector

Insertion/withdrawal cycles	≥ 100 (M12 connector)

Connection 1

Head design	Plug
Head cable outlet	angled
Head thread type	M12
Coding	A

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Head 2

Head design	Valve connector
Head thread type	A
Status indicator head	1 LED

Cable / line

Cable length	1.5 m
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 mm²
Wire diameter incl. insulation	1.5 mm ±0.05 mm (Signal line)
External cable diameter	4.5 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
Smallest bending radius, fixed installation	22.5 mm
Max. bending cycles	15000000
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
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)

Cable structure

Outer sheath, material	PUR
External sheath, color	black-gray RAL 7021

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

Standards/specifications	IEC 61076-2-101
Standards/specifications	EN 175301-803

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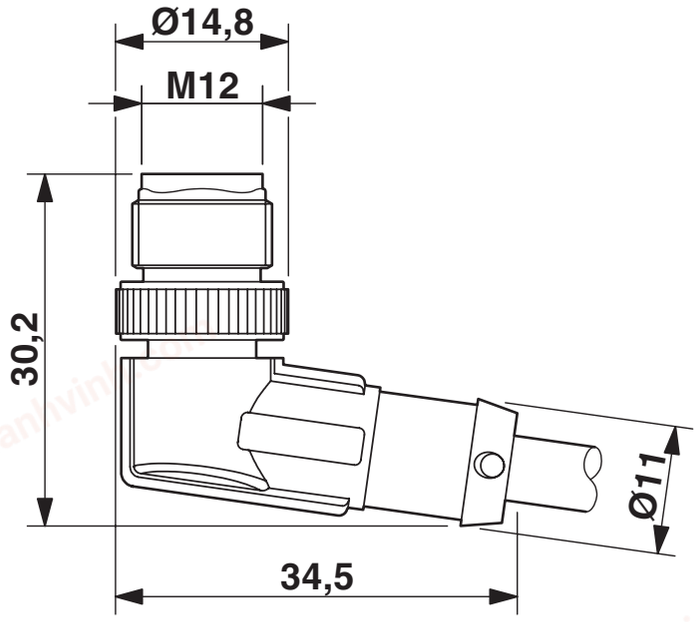
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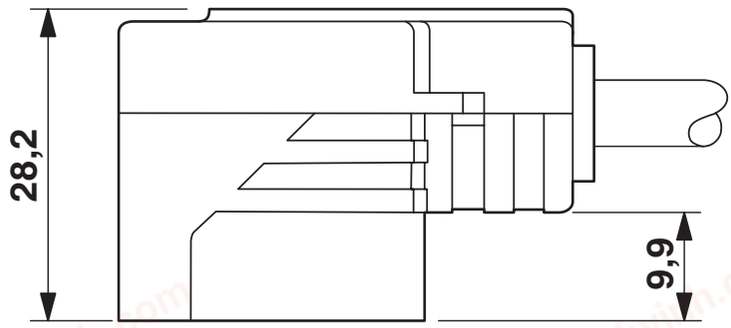
Drawings

Dimensional drawing



M12 x 1 male plug, angled

Dimensional drawing



Valve connector, type A, side view

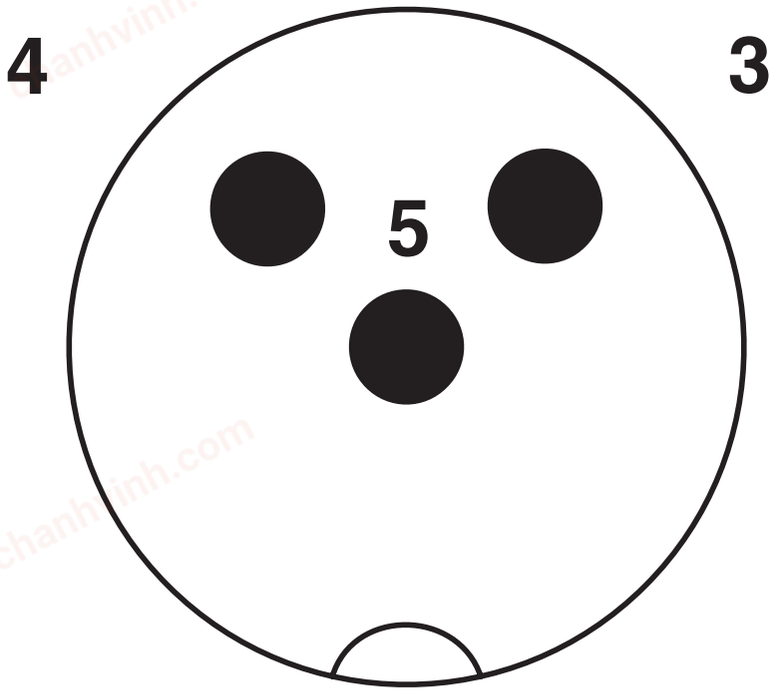
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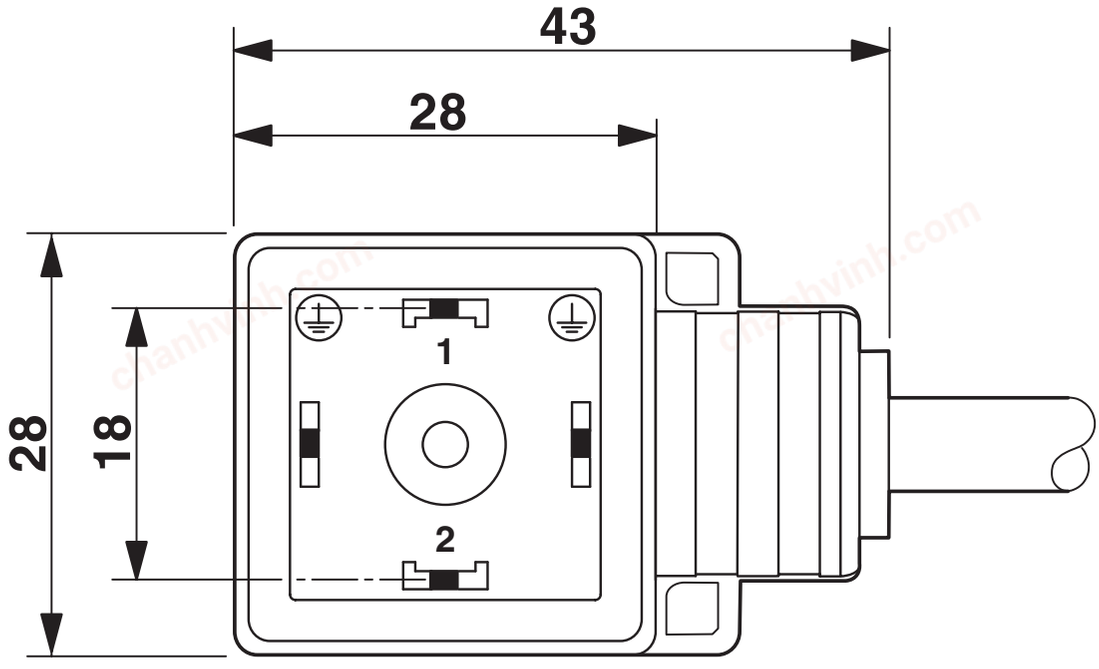
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Schematic diagram



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

Dimensional drawing



Valve connector, type A

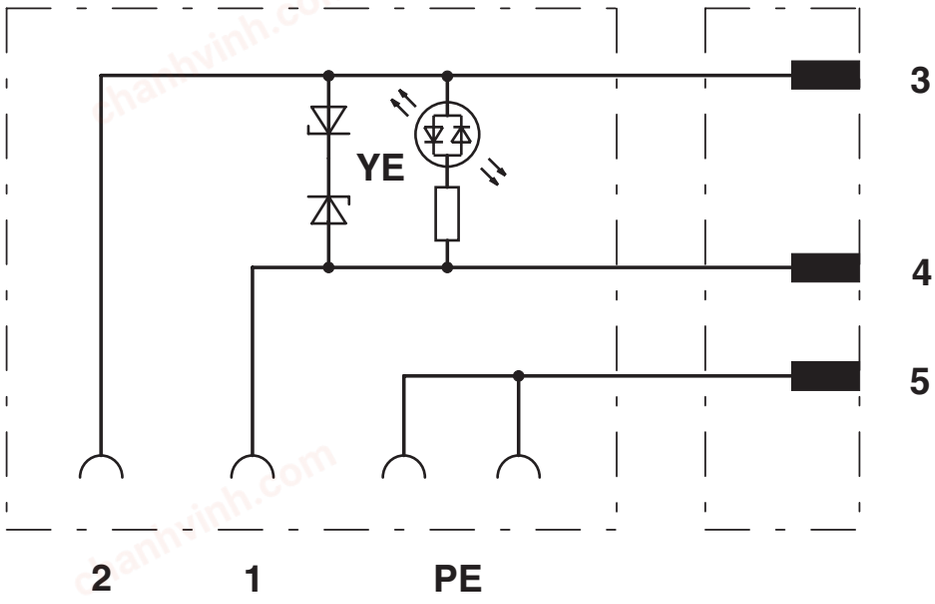
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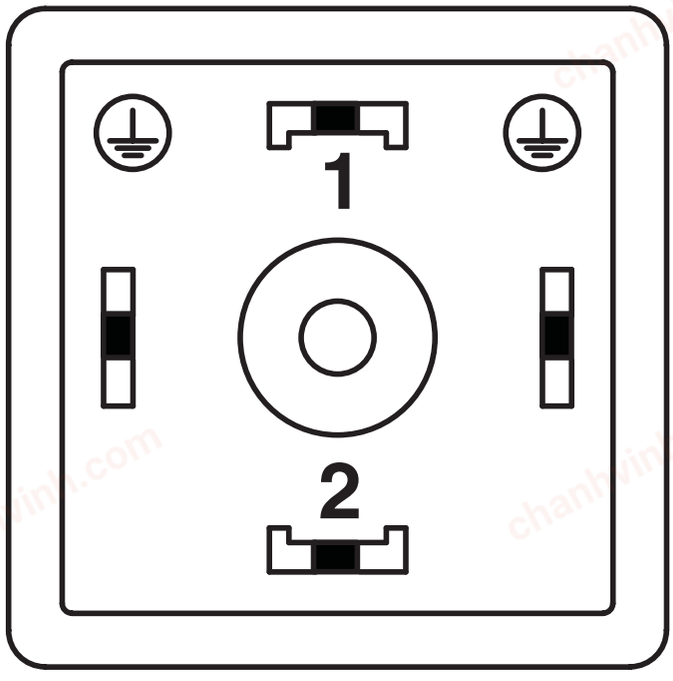
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Circuit diagram



Contact assignment of M12 plug and valve connector

Schematic diagram



Valve connector pin assignment, type A

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Approvals

CSA

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	24 V	4 A	-	-

EAC

CSAus

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	24 V	4 A	-	-

cCSAus

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Classifications

ECLASS

ECLASS-9.0	27060312
ECLASS-10.0.1	27060312
ECLASS-11.0	27060312

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	31251500

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Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads”

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Accessories

Screw

Screw - SAC-V-SCREW-M3-29 KNURL - 1403779

https://www.phoenixcontact.com/gb/products/1403779



Fillister head screw with plastic knurl, M3 x 40

Screw insert

Screw insert - SF-BIT-PH 1-70 - 1212582

https://www.phoenixcontact.com/gb/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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Sealing cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

https://www.phoenixcontact.com/gb/products/1430873

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



Locking clip

Locking clip - SAC-M12-EXCLIP-M - 1558988

https://www.phoenixcontact.com/gb/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



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Sensor/actuator cable - SAC-3P-M12MR/1,5-PUR/A-1L-Z

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Insert label

Insert label - PABA WH/23 - 1013779

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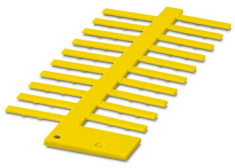


Insert label, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

Insert label

Insert label - PABA YE/23 - 1013782

https://www.phoenixcontact.com/gb/products/1013782



Insert label, Strip, yellow, unlabeled, can be labeled with: CMS-P1-PLOTTER, mounting type: slide-on, cable diameter range: 1.5 ... 35 mm, lettering field size: 23 x 4 mm, Number of individual labels: 20

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Sensor/actuator cable - SAC-3P-M12MR/1,5-PUR/A-1L-Z

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Marker pen

Marker pen - B-STIFT - 1051993

https://www.phoenixcontact.com/gb/products/1051993



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

Torque screwdriver

Torque screwdriver - TSD 04 SAC - 1208429

https://www.phoenixcontact.com/gb/products/1208429



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

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Sensor/actuator cable - SAC-3P-M12MR/1,5-PUR/A-1L-Z

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Torque screwdriver

Torque screwdriver - TSD-M 1,2NM - 1212224

https://www.phoenixcontact.com/gb/products/1212224



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

Adapter insert

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

https://www.phoenixcontact.com/gb/products/1212600



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

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Sensor/actuator cable - SAC-3P-M12MR/1,5-PUR/A-1L-Z

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Tool

Tool - SAC BIT M12-D15 - 1208432

https://www.phoenixcontact.com/gb/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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