

1435140

https://www.phoenixcontact.com/us/products/1435140

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Sensor/actuator cable, 3-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12 SPEEDCON, coding: A, on Valve connector BI (11 mm), with 1 LED, connected with Z diode, cable length: 0.6 m

## Your advantages

- Easy and safe: 100% electrically tested plug-in components
- · Save time, thanks to installation with SPEEDCON fast locking system
- · Convenient: increased machine availability thanks to guick and easy diagnostics
- · Our standard: robust halogen-free PUR cable

### Commercial Data

Item number	1435140
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	B06
Product Key	BF1DMA
Catalog Page	Page 228 (C-2-2019)
GTIN	4046356413497
Weight per Piece (including packing)	49 g
Weight per Piece (excluding packing)	47.4 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		
Application	Standard		
No. of cable outlets	1		
Shielded	no		
Coding	A - standard		
Insulation characteristics			
Overvoltage category	III		
Degree of pollution	3		

### Material specifications

Flammability rating according to UL 94	НВ
Sealing material	TPU (Seal molded)
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
Cable gland material	Zinc die-cast, nickel-plated

## Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	24 V AC
	24 V DC
Nominal current I <sub>N</sub>	4 A
Protective circuit	Z diode

### Valve connector characteristics

Fixing screws	M3 x 29
Pulse power	40 W (at 100 μs square-wave pulse)
Terminal voltage	70 V (at 2 mA constant current)
Reverse voltage	50 V

## LED signaling

Status display	1 LED
Status display present	yes



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Insertion/withdrawal cycles

### Connector

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	Α
Connection 2	
Head design	Valve connector
Head thread type	BI (11 mm)
Status indicator head	1LED
ble / line	
	0.0
Cable length	0.6 m
PUR halogen-free black [PUR]	
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
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
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

≥ 100 (M12 connector)



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	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)

## Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)
	-20 °C 85 °C (valve plug)
	-40 °C 80 °C (cable, fixed installation)
	-15 °C 80 °C (Cable, flexible installation)

## Standards and regulations

### M12

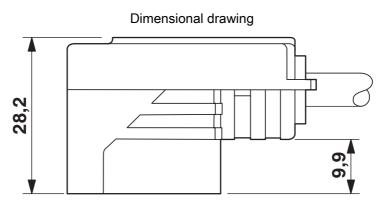
Standards/specifications	IEC 61076-2-101



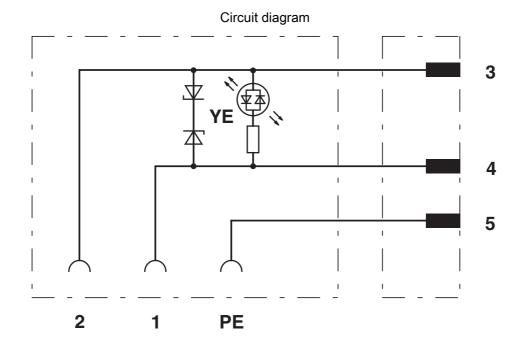
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## Drawings



Valve connector, type BI, side view

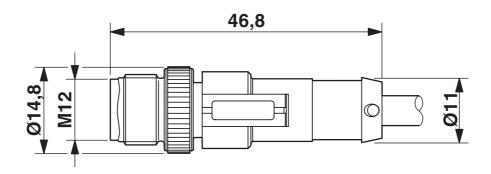




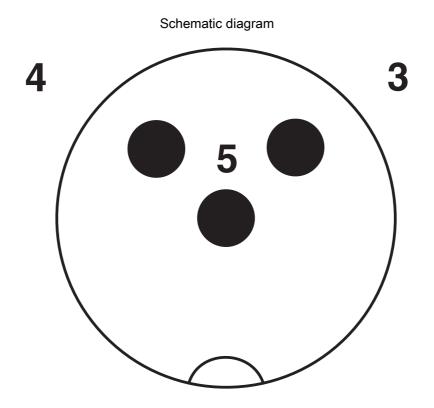
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## Dimensional drawing



Plug, M12 x 1, straight, shielded



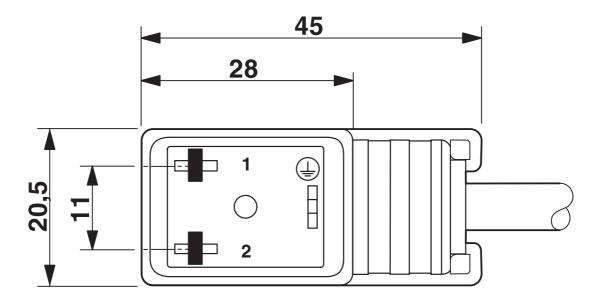
Pin assignment M12 plug, 3-pos., valve connector



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## Dimensional drawing



Valve connector, type BI



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## **Approvals**



EAC

Approval ID: RU C-DE.BL08.B.00286



EAC

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

Ğ.	CSAus Approval ID: 13631				
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		24 V	4 A	-	-



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## Classifications

UNSPSC 21.0

### **ECLASS**

	ECLASS-9.0	27060312	
	ECLASS-10.0.1	27060312	
	ECLASS-11.0	27060312	
ETIM			
	ETIM 8.0	EC001855	
UNSPSC			

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/us/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/us/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/us/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/us/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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#### Insert label

Insert label - PABA WH/23 - 1013779

https://www.phoenixcontact.com/us/products/1013779



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

### Insert label

Insert label - PABA YE/23 - 1013782

https://www.phoenixcontact.com/us/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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### Marker pen

Marker pen - B-STIFT - 1051993 https://www.phoenixcontact.com/us/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/us/products/1208429



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



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### Torque screwdriver

Torque screwdriver - TSD-M 1,2NM - 1212224 https://www.phoenixcontact.com/us/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/us/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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### Tool

Tool - SAC BIT M12-D15 - 1208432

https://www.phoenixcontact.com/us/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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