

Pressure sensors SPBA, for valves

Technical data

Pressure sensor SPBA

- Pressure sensor with permanently set switching point
- Electrical connection: Plug M12x1 to EN 60947-5-2
- Mounting: Screw-in



General technical data			
Type		SPBA-P2R-G18-2P-...	SPBA-P2R-G18-W-...
Electrical connection		Plug to EN 60947-5-2, M12x1, 4-pin, round	
Operating voltage range	[V DC]	21.6 ... 26.4	
Max. output current	[mA]	500	1,000
Minimum load current (at 24 V)	[mA]	–	2
Protection against short circuit		Yes	–
Reverse polarity protection		For all electrical connections	
Type of mounting		Screw-in, 22 mm A/F	Screw-in, 24 mm A/F
Mounting position		Any	
Pneumatic connection		G1/8	
Weight	[g]	50	80
Protection class to EN 60529		IP65	

Materials			
Type		SPBA-P2R-G18-2P-...	SPBA-P2R-G18-W-...
Housing		High-alloy stainless steel	Steel
Plug		PBT	POM
Note on materials		RoHS-compliant	

Operating and environmental conditions			
Type		SPBA-P2R-G18-2P-...	SPBA-P2R-G18-W-...
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:4:4]	
Note about the operating/pilot medium		Operation with lubricated medium possible	
Ambient temperature	[°C]	–5 ... +50	
Operating pressure	[bar]	–1 ... +10	
Corrosion resistance class CRC ¹⁾		4	0
CE marking (see declaration of conformity)		To EU EMC Directive ²⁾	–
		To EU Machinery Directive	–

1) Corrosion resistance class 4 according to Festo standard 940 070
 Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

2) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp → Certificates.
 If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

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Input signal/measuring element		
Type	SPBA-P2R-G18-2P-...	SPBA-P2R-G18-W-...
Measured variable	Relative pressure	Relative pressure
Method of measurement	Thin-film metal pressure sensor	Pneumatic/electrical pressure transducer

Electrical data		
Type	SPBA-P2R-G18-2P-...	SPBA-P2R-G18-W-...
Switching output	2x PNP	Contacting
Switching function	Threshold value - fixed hysteresis	
Switching element function	Antivalent	Changeover switch
Switch-on point	[bar]	0.25, permanently set
Max. switch-on point	[bar]	0.40
Min. switch-off point	[bar]	0.05

Pin allocation to EN 60947-5-2			
Plug, 4-pin			
M12x1	Pin	SPBA-P2R-G18-2P-...	SPBA-P2R-G18-W-... ¹⁾
	1	Operating voltage +24 V DC	Operating voltage +24 V DC
	2	N/C contact	N/C contact
	3	0 V	n.c.
	4	N/O contact	N/O contact

1) Allocation applies to PNP switching logic, other connection types possible

Circuit symbol	
SPBA-P2R-G18-2P-... 	SPBA-P2R-G18-W-...

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Dimensions Download CAD data → www.festo.com

SPBA-P2R-G18-2P-...

1 Plug M12x1
2 Pressure supply port G1/8

SPBA-P2R-G18-W-...

1 Plug M12x1 to EN6 1076-2-101
2 Pressure supply port G1/8

Type	D1	D2	D3 ∅	L1	L2	L3	≈
SPBA-P2R-G18-2P-M12-0,25X	M12x1	G1/8	21.3	49.6	38.1	8	22
SPBA-P2R-G18-W-M12-0,25X	M12x1	G1/8	26	82	56 ^{+2.5}	10	24

Ordering data		Part No.	Type
Pressure switch			
	Mechanical pressure switch, pneumatic/electrical pressure transducer, contacting switching output	8000033	SPBA-P2R-G18-W-M12-0,25X
	Electrical pressure switch, thin-film metal pressure sensor, 2xPNP switching output	8000210	SPBA-P2R-G18-2P-M12-0,25X
Connecting cable			
	Socket M12x1, 5-pin; plug M12x1, 4-pin; for connecting pressure sensor	0.5 m	8000208 NEBU-M12G5-K-0.5-M12G4