

**Pressure sensors SPBA, for valves**

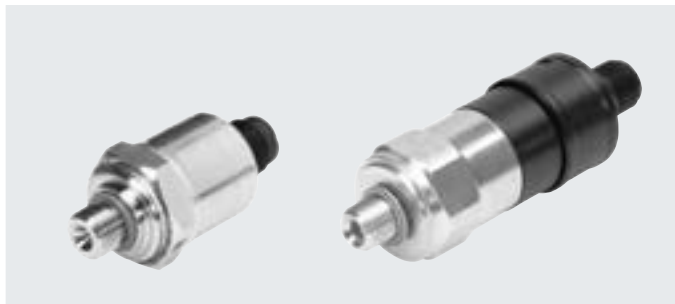
**FESTO**



## Datasheet

### 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 design	
Operating voltage range	[V DC]	19.2 ... 30	
Max. output current	[mA]	500	1000
Min. load current (at 24 V)	[mA]	–	2
Short circuit current rating		Yes	–
Reverse-polarity protection		For all electrical connections	–
Type of mounting		Screw-in, 22 mm	Screw-in, 24 mm
Mounting position		Any	
Pneumatic connection		G1/8	
Weight	[g]	50	80
Degree of protection 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	

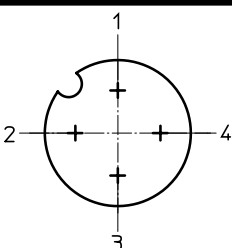
Operating and environmental conditions			
Type		SPBA-P2R-G18-2P-...	SPBA-P2R-G18-W-...
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]	
Note on the operating/pilot medium		Lubricated operation possible	
Ambient temperature	[°C]	–5 ... +50	
Operating pressure	[bar]	–1 ... +10	
Corrosion resistance class CRC <sup>1)</sup>		4	0
CE marking (see declaration of conformity)		To EU EMC Directive <sup>2)</sup>	–
		To EU Machinery Directive	–
PWIS conformity		VDMA24364-B1/B2-L	

- 1) Corrosion resistance class CRC 4 to Festo standard FN 940070  
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (→ also FN 940082), using appropriate media.
- 2) For information about the area of use, see the EC declaration of conformity at: [www.festo.com/catalogue/SPBA](http://www.festo.com/catalogue/SPBA) → Support/Downloads.  
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

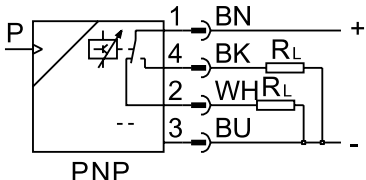
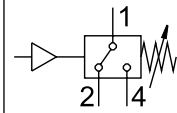
## Datasheet

Input signal/measuring element		
Type	SPBA-P2R-G18-2P-...	SPBA-P2R-G18-W-...
Measured variable	Relative pressure	Relative pressure
Measurement method	Metal thin-film pressure sensor	Pneumatic/electric 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
Switch-off point min.	[bar]	0.05

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

1) Allocation for PNP switching logic; other connection types are possible

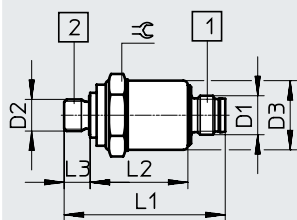
Circuit symbol	
SPBA-P2R-G18-2P-... 	SPBA-P2R-G18-W-... 

## Datasheet

### Dimensions

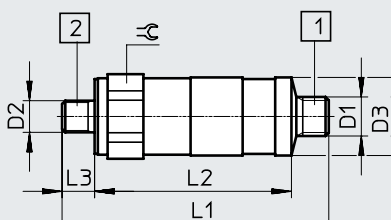
Download CAD data → [www.festo.com](http://www.festo.com)

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



- [1] Plug M12x1
- [2] Pressure supply port G1/8



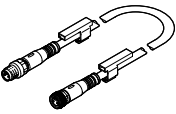
SPBA-P2R-G18-W-...



- [1] Plug M12x1 to EN 61076-2-101
- [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 <sup>+2.5</sup>	10	24

### Ordering data

	Description	Part no.	Type
<b>Pressure switch</b>			
	Mechanical pressure switch, pneumatic-electric pressure transducer, switching output contacting	<b>8000033</b>	<b>SPBA-P2R-G18-W-M12-0.25X</b>
	Electric pressure switch, metal thin-film pressure sensor, switching output 2xPNP	<b>8000210</b>	<b>SPBA-P2R-G18-2P-M12-0.25X</b>
<b>Connecting cable</b>			
	Socket M12x1, 5-pin, plug M12x1, 4-pin, for pressure switch connection	0.5 m	<b>8000208</b> <b>NEBU-M12G5-K-0.5-M12G4</b>