

**Pressure sensors SPBA, for valves**

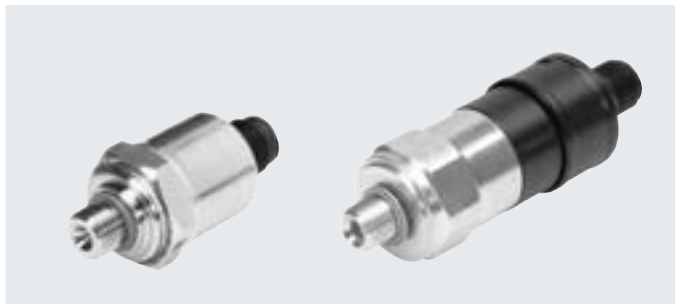
**FESTO**



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

Operating and environmental conditions		SPBA-P2R-G18-2P-...	SPBA-P2R-G18-W-...
Type			
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	
	[MPa]	–0.1 ... 1	
	[psi]	–14.5 ... 145	
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	–
UKCA marking (see declaration of conformity)		To UK instructions for EMC	–
		To UK RoHS instructions	–
PWIS conformity		VDMA24364-B1/B2-L	

1) More information: [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

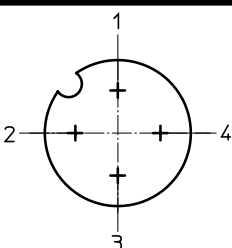
2) For information about the area of use, see the EC declaration of conformity at: [www.festo.com/catalogue/SPBA](http://www.festo.com/catalogue/SPBA) → Support/Downloads.

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.

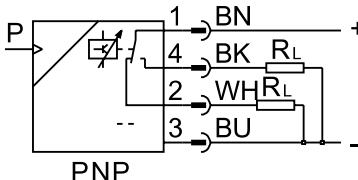
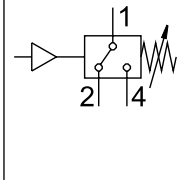
## Datasheet

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

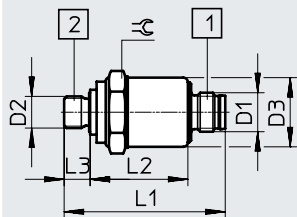
Circuit symbol	
SPBA-P2R-G18-2P-... 	SPBA-P2R-G18-W-... 

## Datasheet

### Dimensions

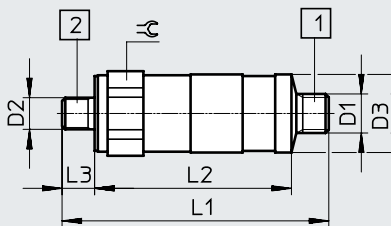
Download CAD data → [www.festo.com](http://www.festo.com)

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



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



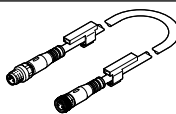
SPBA-P2R-G18-W-...



- [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>