

## Pressure switch SPBA

**FESTO**



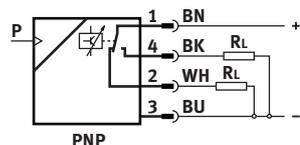
## Type code

<b>001</b>	<a href="#">Series</a>
<b>SPBA</b>	Pressure sensor SPBA
<b>002</b>	<a href="#">Pressure measuring range</a>
<b>P2</b>	0 ... 2 bar
<b>003</b>	<a href="#">Pressure inlet</a>
<b>R</b>	Relative pressure
<b>004</b>	<a href="#">Pneumatic connection</a>
<b>G18</b>	G1/8

<b>005</b>	<a href="#">Switching output</a>
<b>2P</b>	2x PNP
<b>W</b>	Contacting
<b>006</b>	<a href="#">Electrical connection</a>
<b>M12</b>	Plug M12, A-coded
<b>007</b>	<a href="#">Teach-in point 1</a>
<b>0.25X</b>	0.25 bar

# Datasheet

## General technical data, 2 x PNP



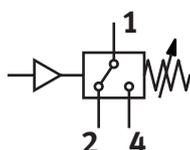
- Pressure sensor with permanently set switching point
- Electrical connection: Plug M12x1 to EN 60947-5-2
- Mounting: screw-in

Switching output	2xPNP
CE mark (see declaration of conformity) <sup>1)</sup>	To EU EMC Directive, To EC Machinery Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC, To UK RoHS instructions
Note on materials	RoHS-compliant

1) 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.

## General technical data, contacting



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

Switching output	Contacting
CE mark (see declaration of conformity)	–
UKCA marking (see declaration of conformity)	–
Note on materials	RoHS-compliant

## Input signal, measuring element

Measured variable	Relative pressure
Measurement method	Metal thin-film pressure sensor, Pneumatic/electric pressure transducer
Operating pressure	-0.1 ... 1 MPa
Operating pressure	-1 ... 10 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible

## Switching output

Switching output	2xPNP	Contacting
Switching function	Threshold value with fixed hysteresis	
Switching element function	Antivalent	Changeover switch
Switch-on point	0.25 bar	
Switch-on point max.	0.4 bar	
Switch-off point min.	0.05 bar	
Max. output current DC	500 mA	1,000 mA
Min. load current	–	2 mA at 24 V

## Output, additional data

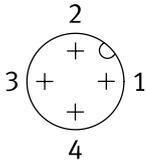
Switching output	2xPNP	Contacting
Short circuit current rating	yes	no

## Electronics

Operational voltage range DC	19.2 ... 30 V
Reverse polarity protection	For all electrical connections, no

## Datasheet

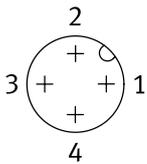
### Switching output 2x PNP



- 1 Operating voltage +24 V DC
- 2 Normally closed contacts
- 3 0 V
- 4 Normally open

Electrical connection	4-pin, M12x1, Plugs, To EN 60947-5-2, Round design
Electrical connection 1, connection type	Plugs
Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection 1, number of connections/cores	4
Electrical connection 1, used connections/cores	4
Electrical connection 1, type of mounting	Screw-type lock, Not rotatable
Electrical connection 1, compatible type of mounting	Compatible with rotatable screw-type lock

### Electromechanics, contacting



- 1 Operating voltage +24 V DC
- 2 Normally closed contacts
- 3 n.c.
- 4 Normally open

Allocation for PNP switching logic; other connection types are possible

Electrical connection	4-pin, M12x1, Plugs, To EN 60947-5-2, Round design
Electrical connection 1, connection type	Plugs
Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection 1, number of connections/cores	4
Electrical connection 1, used connections/cores	3
Electrical connection 1, type of mounting	Screw-type lock, Not rotatable
Electrical connection 1, compatible type of mounting	Compatible with rotatable screw-type lock

### Mechanical components

Switching output	2xPNP	Contacting
Pneumatic connection	G1/8	
Type of mounting	Screw-in	
Product weight	50 g	80 g
Material electrical connection	PBT	POM
Material housing	High-alloy stainless steel	Steel

### Display, operation

Setting options	Permanently set
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## Datasheet

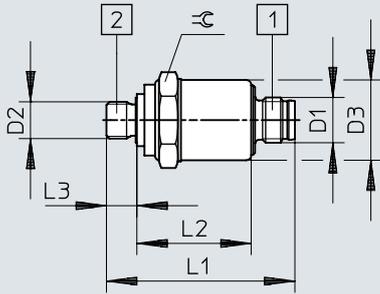
Immission, emission		
Switching output	2xPNP	Contacting
Degree of protection	IP65	
LABS (PWIS) conformity	VDMA24364-B1/B2-L	
Corrosion resistance class CRC <sup>1)</sup>	4 - Very high corrosion stress	0 - No corrosion stress

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

## Dimensions

### Dimensions – SPBA-P2R-G18-2P-...

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



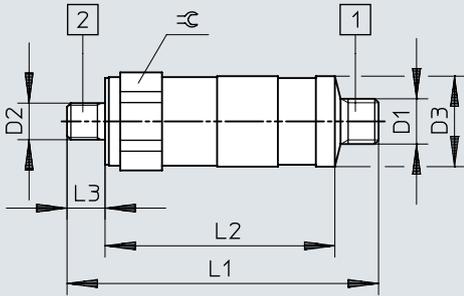
- [1] Plug M12x1
- [2] Pressure connection G1/8

	D1	D2	D3 ∅	L1	L2	L3	≅
SPBA-P2R-G18-2P-M12-0,25X	M12x1	G1/8	21,3	49,6	38,1	8	22

## Dimensions

Dimensions – SPBA-P2R-G18-W-...

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



- [1] Plug M12x1 to IEC 61076-2-101
- [2] Pressure connection G1/8

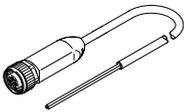
	D1	D2	D3 ∅	L1	L2	L3	≡
SPBA-P2R-G18-W-M12-0,25X	M12x1	G1/8	26	82	56 <sup>+2,5</sup>	10	24

## Ordering data

Order details, 2 x PNP			
	Switching output	Part no.	Type
	2xPNP	8000210	SPBA-P2R-G18-2P-M12-0,25X

Order details, contacting			
	Switching output	Part no.	Type
	Contacting	8000033	SPBA-P2R-G18-W-M12-0,25X

## Accessories

Connecting cables NEBA, straight						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101, M8x1, A-coded, to EN 61076-2-104, Open end, Diameter 8 mm, A-coded to EN 61076-2-104	M12x1, A-coded to EN 61076-2-101, M8x1, A-coded to EN 61076-2-104, Open end	3 ... 5	0.3 ... 30 m	<b>8078221</b>	<b>NEBA-</b>
	M12x1, A-coded to EN 61076-2-101	M12x1, A-coded to EN 61076-2-101	5	0.5 m	<b>8078274</b>	<b>NEBA-M12G5-U-0.5-N-M12G5</b>