

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 |
| Minimum load current (at 24 V) | [mA] | – |
| 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 | G $\frac{1}{8}$ | |
| Weight | [g] | 50 |
| 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 | 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 → User documentation.
 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-... |

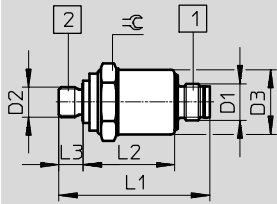
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Dimensions

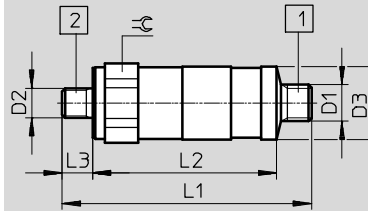
Download CAD data → www.festo.com

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



- 1 Plug M12x1
- 2 Pressure supply port G $\frac{1}{8}$



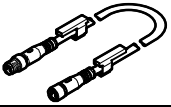
SPBA-P2R-G18-W-...



- 1 Plug M12x1 to EN6 1076-2-101
- 2 Pressure supply port G $\frac{1}{8}$

| Type | D1 | D2 | D3 ∅ | L1 | L2 | L3 | ≈ |
|---------------------------|-------|-----------------|---------|------|--------------------|----|----|
| SPBA-P2R-G18-2P-M12-0,25X | M12x1 | G $\frac{1}{8}$ | 21.3 | 49.6 | 38.1 | 8 | 22 |
| SPBA-P2R-G18-W-M12-0,25X | M12x1 | G $\frac{1}{8}$ | 26 | 82 | 56 ^{+2.5} | 10 | 24 |

Ordering data

| | Description | 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 |