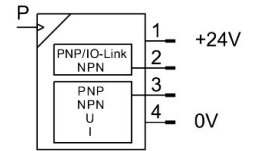


# Pressure sensor SPAN-B2R-M5F-PNLK-PNVBA-L1

Part number: 8035540

**FESTO**



## Data sheet

| Feature                                      | Value                                                                         |
|----------------------------------------------|-------------------------------------------------------------------------------|
| Approval                                     | RCM trademark<br>c UL us listed (OL)                                          |
| CE mark (see declaration of conformity)      | To EU EMC Directive<br>In accordance with EU RoHS Directive                   |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK RoHS instructions                         |
| Certificate issuing authority                | UL E322346                                                                    |
| Note on materials                            | RoHS-compliant                                                                |
| Measured variable                            | Relative pressure                                                             |
| Measurement method                           | Piezoresistive pressure sensor                                                |
| Start value for pressure measuring range     | -0.1 MPa<br>-1 bar<br>-14.5 psi                                               |
| End value for pressure measuring range       | 0.1 MPa<br>1 bar<br>14.5 psi                                                  |
| Max. overload pressure                       | 5 bar                                                                         |
| Overload pressure                            | 0.5 MPa<br>5 bar<br>72.5 psi                                                  |
| Operating medium                             | Compressed air to ISO 8573-1:2010 [7:4:4]<br>Inert gases                      |
| Note on operating and pilot medium           | Lubricated operation possible                                                 |
| Media temperature                            | 0 °C...50 °C                                                                  |
| Ambient temperature                          | 0 °C...50 °C                                                                  |
| Accuracy in ± % FS                           | 1.5 %FS                                                                       |
| Repetition accuracy in ± %FS                 | 0.3 %FS                                                                       |
| Temperature coefficient in ± %FS/K           | 0.05 %FS/K                                                                    |
| Switching output                             | 2 x PNP or 2 x NPN, switchable                                                |
| Switching function                           | Window comparator<br>Threshold value comparator<br>Auto difference monitoring |
| Switching element function                   | N/C or N/O contact, switchable                                                |
| Max. output current                          | 100 mA                                                                        |

| Feature                                                   | Value                                                                                                      |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Analogue output                                           | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V                                                                           |
| Max. load resistance current output                       | 500 Ohm                                                                                                    |
| Min. load resistance voltage output                       | 20 kOhm                                                                                                    |
| Short circuit current rating                              | yes                                                                                                        |
| Protocol                                                  | IO-Link®                                                                                                   |
| IO-Link, Protocol version                                 | Device V 1.1                                                                                               |
| IO-Link, Profile                                          | Smart sensor profile                                                                                       |
| IO-Link, Function classes                                 | Binary data channel (BDC)<br>Process data variable (PDV)<br>Identification<br>Diagnostics<br>Teach channel |
| IO-Link, communication mode                               | COM2 (38.4 kBaud)                                                                                          |
| IO-Link, SIO-Mode support                                 | Yes                                                                                                        |
| IO-Link, Port class                                       | A                                                                                                          |
| IO-Link, Process data length OUT                          | 0 bytes                                                                                                    |
| IO-Link, Process data length IN                           | 2 bytes                                                                                                    |
| IO-Link, Process data content IN                          | 14 bit PDV (pressure measurement value)<br>2 bit BDC (pressure monitoring)                                 |
| IO-Link, Min. cycle time                                  | 3 ms                                                                                                       |
| IO-Link, Data storage required                            | 0.5 KB                                                                                                     |
| Operational voltage range DC                              | 15 V...30 V                                                                                                |
| Reverse polarity protection                               | For all electrical connections                                                                             |
| Electrical connection 1, connection type                  | Plugs                                                                                                      |
| Electrical connection 1, connector system                 | Connection pattern L1J                                                                                     |
| Electrical connection 1, number of connections/cores      | 4                                                                                                          |
| Type of mounting                                          | Front panel mounting<br>Via wall/surface bracket                                                           |
| Mounting position                                         | optional                                                                                                   |
| Pneumatic connection                                      | Female thread M5                                                                                           |
| Product weight                                            | 34 g                                                                                                       |
| Material housing                                          | PA-reinforced                                                                                              |
| Material in contact with the medium                       | FPM<br>High-alloy stainless steel                                                                          |
| Display type                                              | Illuminated LCD                                                                                            |
| Displayable units                                         | MPa<br>bar<br>inH2O<br>inHg<br>kPa<br>kgf/cm²<br>mbar<br>mmHg<br>psi                                       |
| Setting options                                           | IO-Link®<br>Teach-in<br>Via display and keys                                                               |
| Protection against tampering                              | IO-Link<br>PIN code                                                                                        |
| Setting range threshold value                             | 0 %...100 %                                                                                                |
| Setting range hysteresis                                  | 0 %...90 %                                                                                                 |
| Degree of protection                                      | IP40                                                                                                       |
| Corrosion resistance class CRC                            | 2 - Moderate corrosion stress                                                                              |
| LABS (PWIS) conformity                                    | VDMA24364-B1/B2-L                                                                                          |
| Suitability for the production of Li-ion batteries        | Suitable for battery production with reduced Cu/Zn/Ni values (F1a)                                         |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 4 according to ISO 14644-1                                                                           |