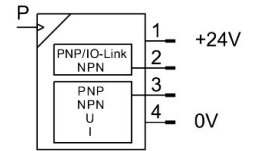


# Pressure sensor SPAN-V1R-G18M-PNLK-PNVBA-L1

Part number: 8035535

**FESTO**



## Data sheet

| Feature                                      | Value                                                                         |
|----------------------------------------------|-------------------------------------------------------------------------------|
| Certification                                | RCM compliance mark<br>c UL us - Listed (OL)                                  |
| CE marking (see declaration of conformity)   | As per EU EMC directive<br>As per 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                                                             |
| Method of measurement                        | Piezoresistive pressure sensor                                                |
| Pressure measuring range initial value       | 0 MPa<br>0 bar<br>0 psi                                                       |
| Pressure measuring range end value           | -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 as per ISO 8573-1:2010 [7:4:4]<br>Inert gases                  |
| Information on operating and pilot media     | Lubricated operation possible                                                 |
| Temperature of medium                        | 0 °C...50 °C                                                                  |
| Ambient temperature                          | 0 °C...50 °C                                                                  |
| Accuracy in ± % FS                           | 1.5 %FS                                                                       |
| Repetition accuracy in ± %FS                 | 0.3 %FS                                                                       |
| Temperature co-efficient 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 contact/N/O contact, switchable                                           |
| Max. output current                          | 100 mA                                                                        |
| Analog output                                | 0 - 10 V                                                                      |

| Feature                                                   | Value                                                                                                      |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
|                                                           | 4 - 20 mA<br>1 - 5 V                                                                                       |
| Max. load resistance of current output                    | 500 Ohm                                                                                                    |
| Min. load resistance of voltage output                    | 20 kOhm                                                                                                    |
| Short-circuit protection                                  | 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 kBd)                                                                                            |
| IO-Link®, SIO mode support                                | Yes                                                                                                        |
| IO-Link®, port class                                      | A                                                                                                          |
| IO-Link®, process data width OUT                          | 0 bytes                                                                                                    |
| IO-Link®, process data width IN                           | 2 Byte                                                                                                     |
| IO-Link®, process data content IN                         | 14 bit PDV (pressure measurement)<br>2 bit BDC (pressure monitoring)                                       |
| IO-Link®, minimum cycle time                              | 3 ms                                                                                                       |
| IO-Link®, data memory required                            | 0.5 KB                                                                                                     |
| DC operating voltage range                                | 15 V...30 V                                                                                                |
| Reverse polarity protection                               | for all electrical connections                                                                             |
| Electrical connection 1, connection type                  | Plug                                                                                                       |
| Electrical connection 1, connection technology            | Connection pattern L1J                                                                                     |
| Electrical connection 1, number of pins/wires             | 4                                                                                                          |
| Type of mounting                                          | Front panel mounting<br>With thread<br>With wall/surface bracket                                           |
| Mounting position                                         | Any                                                                                                        |
| Pneumatic connection                                      | External thread G1/8<br>Internal thread M5                                                                 |
| Product weight                                            | 46 g                                                                                                       |
| Housing material                                          | PA-reinforced                                                                                              |
| Materials in contact with the media                       | FPM<br>high-alloy stainless steel                                                                          |
| Display type                                              | Illuminated LCD                                                                                            |
| Displayable unit(s)                                       | MPa<br>bar<br>In H2O<br>In Hg<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                                                                           |