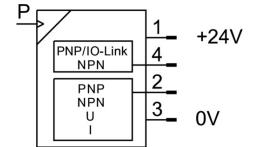


# Pressure sensor SPAU-V1R-W-G18FD-L-PNLK-PNVBA-M8U

Part number: 8001235

**FESTO**



## Data sheet

| Feature                                               | Value                                                      |
|-------------------------------------------------------|------------------------------------------------------------|
| Type code                                             | SPAU                                                       |
| Electrical connection 1, connection technology        | M8x1 A-coded as per EN 61076-2-104                         |
| Electrical connection for input 1, connection pattern | 00991171                                                   |
| KC characters                                         | KC EMC                                                     |
| Electrical connection 1, connection type              | Plug                                                       |
| Electrical connection 1, number of pins/wires         | 4                                                          |
| Symbol                                                | 00995410                                                   |
| 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        |
| Note on materials                                     | RoHS-compliant                                             |
| Measured variable                                     | Relative pressure                                          |
| Method of measurement                                 | Piezoresistive pressure sensor                             |
| Pressure measuring range initial value                | 0 bar                                                      |
| Pressure measuring range end value                    | -1 bar                                                     |
| Max. overload pressure                                | 5 bar                                                      |
| Operating medium                                      | Compressed air as per ISO 8573-1:2010 [7:4:4]<br>Inert gas |
| Information on operating and pilot media              | Operation with oil lubrication possible                    |
| Temperature of medium                                 | 0 °C ... 50 °C                                             |
| Ambient temperature                                   | 0 °C ... 50 °C                                             |
| ADC resolution                                        | 12 bit                                                     |
| 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                                    | Freely programmable                                        |
| Switching element function                            | N/C contact/N/O contact switchable                         |
| Max. output current                                   | 100 mA                                                     |
| Analog output                                         | 0 - 10 V<br>4 - 20 mA<br>1 - 5 V                           |
| Rise time                                             | 3 ms                                                       |
| Max. load resistance of current output                | 500 Ohm                                                    |
| Min. load resistance of voltage output                | 10 kOhm                                                    |
| Short-circuit protection                              | yes                                                        |

| Feature                           | Value                                                                                                      |
|-----------------------------------|------------------------------------------------------------------------------------------------------------|
| 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 Byte                                                                                                     |
| 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    | 500 byte                                                                                                   |
| DC operating voltage range        | 20 V ... 30 V                                                                                              |
| Reverse polarity protection       | for all electrical connections                                                                             |
| Type of mounting                  | With wall/surface bracket                                                                                  |
| Mounting position                 | Any                                                                                                        |
| Pneumatic connection              | G1/8                                                                                                       |
| Product weight                    | 70 g                                                                                                       |
| Display type                      | Illuminated LCD                                                                                            |
| Displayable unit(s)               | MPa<br>bar<br>inchH2O<br>inchHg<br>kPa<br>kgf/cm²<br>mmHg<br>psi                                           |
| Setting options                   | IO-Link®<br>Teach-in<br>Via display and pushbuttons                                                        |
| Protection against tampering      | IO-Link®<br>PIN code                                                                                       |
| Setting range threshold value     | 0 % ... 100 %                                                                                              |
| Setting range hysteresis          | 0 % ... 90 %                                                                                               |
| Degree of protection              | IP65<br>IP67                                                                                               |
| Corrosion resistance class (CRC)  | 2 - Moderate corrosion stress                                                                              |