

PV7001



Pressure switch with IO-Link

PV-250-SEG14-UFRVG/US/1



1 Sealing



Product characteristics

| | | | |
|--------------------|---|--------------|------------|
| Output signal | switching signal; IO-Link; (configurable) | | |
| Measuring range | 0...250 bar | 0...3626 psi | 0...25 MPa |
| Process connection | threaded connection G 1/4 external thread (DIN EN ISO 1179-2); internal thread M5 | | |

Application

| | | | |
|--------------------------|-----------------------------|-----------|----------|
| Measuring element | metallic thin film cell | | |
| Application | for industrial applications | | |
| Media | liquids and gases | | |
| Medium temperature [°C] | -40...90 | | |
| Pressure rating | 625 bar | 9060 psi | 62.5 MPa |
| Note on pressure rating | static | | |
| Min. bursting pressure | 1200 bar | 17400 psi | 120 MPa |
| Vacuum resistance [mbar] | -1000 | | |
| Type of pressure | relative pressure | | |

Electrical data

| | | | |
|---------------------------------|-----------------|--|--|
| Operating voltage [V] | 18...30 DC | | |
| Current consumption [mA] | < 15 | | |
| Min. insulation resistance [MΩ] | 100; (500 V DC) | | |
| Protection class | III | | |
| Reverse polarity protection | yes | | |
| Power-on delay time [s] | < 0.3 | | |

Inputs / outputs

| | |
|------------------------------|------------------------------|
| Number of inputs and outputs | Number of digital outputs: 2 |
|------------------------------|------------------------------|



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| Outputs | | | |
|---|------------------------|---|------------------|
| Total number of outputs | | 2 | |
| Output signal | | switching signal; IO-Link; (configurable) | |
| Electrical design | | PNP/NPN | |
| Number of digital outputs | | 2 | |
| Output function | | normally open / normally closed; (parameterisable) | |
| Max. voltage drop switching output DC | [V] | 2 | |
| Permanent current rating of switching output DC | [mA] | 100 | |
| Switching frequency DC | [Hz] | < 170 | |
| Short-circuit protection | | yes | |
| Type of short-circuit protection | | pulsed | |
| Overload protection | | yes | |
| Measuring/setting range | | | |
| Measuring range | | 0...250 bar | 0...3626 psi |
| Set point SP | | 2.5...250 bar | 37...3626 psi |
| Reset point rP | | 1.3...248.8 bar | 18...3608 psi |
| In steps of | | 0.1 bar | 1 psi |
| Factory setting | | SP1 = 62.5 bar | rP1 = 57.5 bar |
| | | SP2 = 187.5 bar | rP2 = 182.5 bar |
| | | dS1/dS2 = 0 ms | dr1/dr2 = 0 ms |
| | | coF = 0 % | P-n = PnP |
| | | | 0...25 MPa |
| | | | 0.25...25 MPa |
| | | | 0.13...24.88 MPa |
| | | | 0.01 MPa |
| | | | ou1 = Hno; |
| | | | ou2 = Hno; |
| | | | dAP= 60 ms |
| Accuracy / deviations | | | |
| Switch point accuracy | [% of the span] | < ± 0,5 (nach DIN EN 61298-2) | |
| Repeatability | [% of the span] | < ± 0,05; (with temperature fluctuations < 10 K) | |
| Characteristics deviation | [% of the span] | < ± 0,5 (nach DIN EN 61298-2); (incl. drift when overtightened, zero point and span error, non-linearity, hysteresis) | |
| Linearity deviation | [% of the span] | < ± 0,1 (BFSL) / < ± 0,2 (LS) | |
| Hysteresis deviation | [% of the span] | < ± 0,2 | |
| Long-term stability | [% of the span] | < ± 0,1; (per 6 months) | |
| Temperature coefficient zero point | [% of the span / 10 K] | < 0,1 (-25...90 °C) / < 0,2 (-40...-25 °C) | |
| Temperature coefficient span | [% of the span / 10 K] | < 0,1 (-25...90 °C) / < 0,2 (-40...-25 °C) | |
| Response times | | | |
| Response time | [ms] | < 3 | |
| Software / programming | | | |
| Parameter setting options | | hysteresis / window; normally open / normally closed; switching logic; switch-on/switch-off delay; Damping | |

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| Interfaces | | |
|-------------------------------|--|---------------------|
| Communication interface | IO-Link | |
| Transmission type | COM2 (38,4 kBaud) | |
| IO-Link revision | 1.1 | |
| SDCI standard | IEC 61131-9 | |
| IO-Link device ID | 709 d / 00 02 C5 h | |
| Profiles | Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis | |
| SIO mode | yes | |
| Required master port type | A | |
| Process data analogue | 2 | |
| Process data binary | 2 | |
| Min. process cycle time [ms] | 5 | |
| Operating conditions | | |
| Ambient temperature [°C] | -40...90 | |
| Storage temperature [°C] | -40...100 | |
| Protection | IP 67; IP 69K | |
| Tests / approvals | | |
| EMC | DIN EN 61326-1 | |
| Shock resistance | DIN EN 60068-2-27 | 500 g (1 ms) |
| Vibration resistance | DIN EN 60068-2-6 | 20 g (10...2000 Hz) |
| MTTF [years] | 667.77 | |
| UL approval | UL Approval no. | J016 |
| Pressure Equipment Directive | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request | |
| Mechanical data | | |
| Weight [g] | 64 | |
| Materials | 1.4542 (17-4 PH / 630); stainless steel (1.4404 / 316L); PEI | |
| Materials (wetted parts) | stainless steel (1.4305 / 303); 1.4542 (17-4 PH / 630) | |
| Min. pressure cycles | 60 million; (at 1.2 times nominal pressure) | |
| Tightening torque [Nm] | 25...35; (recommended tightening torque; depends on lubrication, seal and pressure rating) | |
| Process connection | threaded connection G 1/4 external thread (DIN EN ISO 1179-2); internal thread M5 | |
| Process connection sealing | FKM (to DIN 3869) | |
| Restrictor element integrated | yes | |
| Remarks | | |
| Remarks | BFSL = Best Fit Straight Line LS = limit value setting | |
| Pack quantity | 1 pcs. | |
| Electrical connection | | |
| Connector: 1 x M12 | | |

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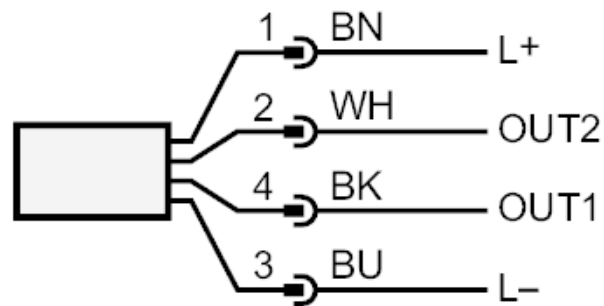


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Connection



OUT1 switching output

IO-Link

OUT2 switching output

colours to DIN EN 60947-5-2

Core colours :

BK = black

BN = brown

BU = blue

WH = white