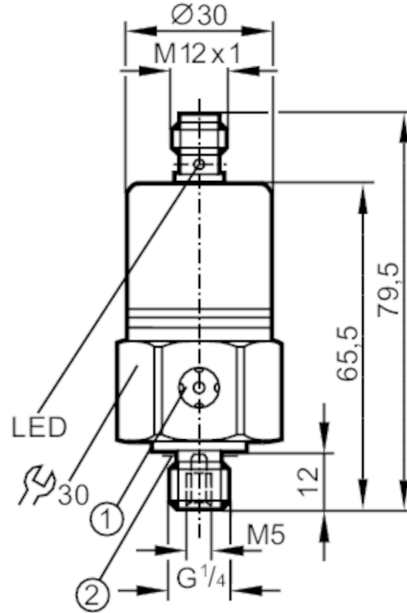


PP7553



Pressure switch with ceramic measuring cell

PP-025-RBG14-QFPKG/US/ IV



- 1 ventilation
- 2 Sealing



Product characteristics

| | | | |
|--------------------|--|-------------|-------------|
| Output signal | switching signal; IO-Link; (configurable) | | |
| Measuring range | 0...25 bar | 0...363 psi | 0...2.5 MPa |
| Process connection | threaded connection G 1/4 external thread internal thread M5 | | |

Application

| | | | |
|-------------------------|-----------------------------|----------|--------|
| Application | for industrial applications | | |
| Media | liquids and gases | | |
| Medium temperature [°C] | -25...90 | | |
| Pressure rating | 150 bar | 2175 psi | 15 MPa |
| Min. bursting pressure | 350 bar | 5075 psi | 35 MPa |
| Type of pressure | relative pressure | | |

Electrical data

| | | | |
|---------------------------------|--|--|--|
| Operating voltage [V] | 9.6...36 DC; (communication mode: 18...32) | | |
| Current consumption [mA] | < 45 | | |
| 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 |
|------------------------------|------------------------------|



Pressure switch with ceramic measuring cell

PP-025-RBG14-QFPKG/US/ IV

| Outputs | | | |
|---|---|----------------|-----------------|
| Total number of outputs | 2 | | |
| Output signal | switching signal; IO-Link; (configurable) | | |
| Electrical design | PNP | | |
| 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] | 250 | | |
| Switching frequency DC [Hz] | 170 | | |
| Short-circuit protection | yes | | |
| Type of short-circuit protection | pulsed | | |
| Overload protection | yes | | |
| Measuring/setting range | | | |
| Measuring range | 0...25 bar | 0...363 psi | 0...2.5 MPa |
| Set point SP | 0.2...25 bar | 4...362 psi | 0.02...2.5 MPa |
| Reset point rP | 0.1...24.9 bar | 2...360 psi | 0.01...2.49 MPa |
| In steps of | 0.1 bar | 2 psi | 0.01 MPa |
| Factory setting | | SP1 = 6.3 bar | rP1 = 5.8 bar |
| | | SP2 = 18.8 bar | rP2 = 18.3 bar |
| | | OUT1 = Hno | OUT2 = Hno |
| Accuracy / deviations | | | |
| Switch point accuracy [% of the span] | < ± 0,5 | | |
| Repeatability [% of the span] | < ± 0,1; (with temperature fluctuations < 10 K) | | |
| Characteristics deviation [% of the span] | < ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting) | | |
| Hysteresis deviation [% of the span] | < ± 0,1 | | |
| Long-term stability [% of the span] | < ± 0,1; (per year) | | |
| Temperature coefficient zero point [% of the span / 10 K] | 0,2; (0...80 °C) | | |
| Temperature coefficient span [% of the span / 10 K] | 0,2; (0...80 °C) | | |
| Response times | | | |
| Response time [ms] | < 3 | | |
| Damping for the switching output dAP in steps [s] | 0,003 - 0,006 - 0,010 - 0,017 - 0,060 - 0,125 - 0,250 - 0,500 | | |

PP7553



Pressure switch with ceramic measuring cell

PP-025-RBG14-QFPKG/US/ IV

| Interfaces | | |
|-------------------------------|---|--|
| Communication interface | IO-Link | |
| Transmission type | COM2 (38,4 kBaud) | |
| IO-Link revision | 1.0 | |
| IO-Link device ID | 5 d / 00 00 05 h | |
| Profiles | no profile | |
| SIO mode | yes | |
| Required master port type | A | |
| Process data analogue | 1 | |
| Process data binary | 2 | |
| Min. process cycle time [ms] | 2.3 | |
| Operating conditions | | |
| Ambient temperature [°C] | -25...85 | |
| Storage temperature [°C] | -40...100 | |
| Protection | IP 68; (7 days / 1 m water depth / 0.1 bar) | |
| Tests / approvals | | |
| EMC | noise immunity | EN 61000-6-2 |
| | EN 61000-4-2 ESD | 4 kV contact discharge / 15 kV air discharge |
| | EN 61000-4-3 HF radiated | 20 V/m |
| | EN 61000-4-4 Burst | 4 kV coupling clamp |
| | EN 61000-4-5 Surge | 0,5 kV supply / 1 kV signal for DC units |
| | EN 61000-4-6 HF conducted | 10 V |
| | noise immunity | according to the automotive directive 1995/54/EC / 04/104EG / 05/83/EG |
| | absorber chamber test to ISO 11452-2: | 80 V/m |
| | EN 50155 | Klasse T3, C1, S1 |
| | DIN IEC 60068-2-27 / DIN IEC 60068-2-29 | 1000 g |
| Shock resistance | DIN EN 61373 | category 3 |
| | DIN IEC 68-2-6 | 20 g (10...2000 Hz) |
| Vibration resistance | DIN EN 60068-2-64 | 14 g |
| | DIN EN 61373 | category 2 |
| MTTF [years] | 310 | |
| Pressure Equipment Directive | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request | |
| Mechanical data | | |
| Weight [g] | 226.5 | |
| Materials | stainless steel (1.4301 / 304); FKM; EPDM/X; PA | |
| Materials (wetted parts) | stainless steel (1.4305 / 303); ceramics; FKM | |
| Min. pressure cycles | 100 million | |
| Process connection | threaded connection G 1/4 external thread internal threadM5 | |
| Restrictor element integrated | no (can be retrofitted) | |
| Displays / operating elements | | |
| Display | operation | 2 x LED, green |
| | switching status | 2 x LED, yellow |
| Teach function | yes | |

PP7553



Pressure switch with ceramic measuring cell

PP-025-RBG14-QFPKG/US/ IV

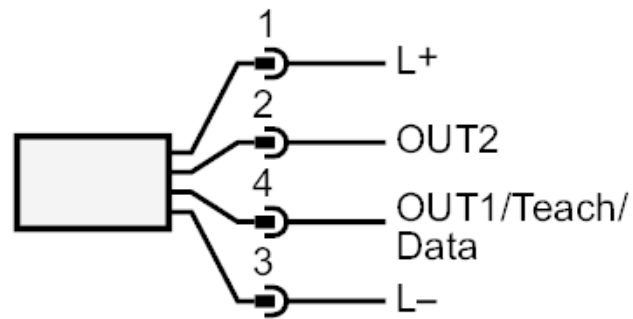
| Remarks | |
|---------------|--|
| Remarks | with reference to UL: "limited voltage" with overcurrent protection in accordance with UL508 |
| Pack quantity | 1 pcs. |

Electrical connection

Connector: 1 x M12



Connection



| | |
|------|-------------------|
| OUT1 | switching output |
| OUT2 | switching output |
| | Diagnostic output |