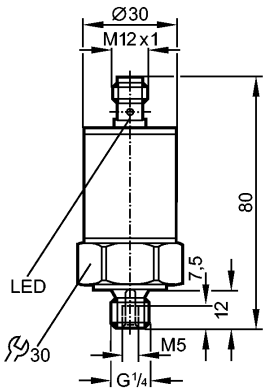
efectorsoo

PP7022

PP-100-SBG14-QFRKG/US/ /V

Pressure sensors




Product characteristics

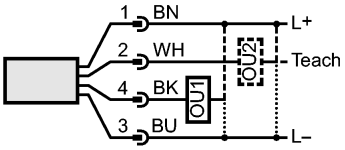
| | | | | |
|---|---|---|---|---|
| Electronic pressure sensor | | | | |
| Quick disconnect | | | | |
| Programmable via EPS interface | | | | |
| Adjustment of the switch point by teach function | | | | |
| Process connection: G ¼ A / M5 I | | | | |
| 2 switching outputs or<br>1 switching output<br>+ 1 teach input | | | | |
| Measuring range: 0...100 bar / 0...1450 psi / 0...10 MPa | | | | |
| Application | | | | |
| Application | | Type of pressure: relative pressure<br>Liquids and gases<br>For gaseous media the application is limited to max. 25 bar | | |
| Pressure rating | | 300 bar | 4350 psi | 30 MPa |
| Bursting pressure min. | | 650 bar | 9400 psi | 65 MPa |
| Medium temperature | [°C] | -25...80 | | |
| Electrical data | | | | |
| Electrical design | | DC PNP/NPN | | |
| Operating voltage | [V] | 9.6...30 DC [1]) | | |
| Current consumption | [mA] | < 45 | | |
| Insulation resistance | [MΩ] | > 100 (500 V DC) | | |
| Protection class | | III | | |
| Reverse polarity protection | | yes | | |
| Outputs | | | | |
| Output | | 2 switching outputs or<br>1 switching output<br>+ 1 teach input | | |
| Output function | | 2 x normally open / closed programmable | | |
| Current rating | [mA] | 2 x 250 | | |
| Voltage drop | [V] | < 2 | | |
| Short-circuit protection | | yes (non-latching) | | |
| Overload protection | | yes | | |
| Switching frequency | [Hz] | ≤ 170 | | |
| Measuring / setting range | | | | |

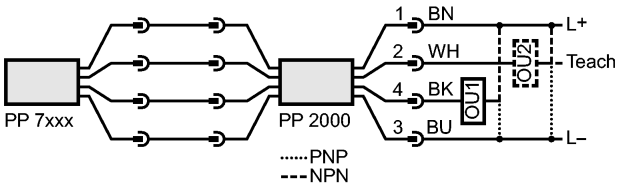
# PP7022 - Electronic pressure sensor - eclass: 27201302 / 27-20-13-02

| | | | |
|---|---|---|---|
| Measuring range | 0...100 bar | 0...1450 psi | 0...10 MPa |
| Setting range | | | |
| Set point, SP | 1.0...99.9 bar | 10...1450 psi | 0.10...0.99 MPa |
| Reset point, rP | 0.5...99.5 bar | 10...1440 psi | 0.05...9.95 MPa |
| in steps of | 0.1 bar | 10 psi | 0.01 MPa |
| Accuracy / deviations | | | |
| Accuracy / deviations (in % of the span) | | | |
| Switch point accuracy | < ± 1.5 | | |
| Characteristics deviation *) | < ± 0.25 (BFSL) / < ± 0.5 (LS) | | |
| Linearity | < ± 0.5 | | |
| Hysteresis | < ± 0.1 | | |
| Repeatability **) | < ± 0.1 | | |
| Long-term stability ***) | < ± 0.1 | | |
| Temperature coefficients (TEMPCO) in the temperature range -25...80° C (in % of the span per 10 K) | | | |
| Greatest TEMPCO of the zero point | < ± 0.2 | | |
| Greatest TEMPCO of the span | < ± 0.3 | | |
| Reaction times | | | |
| Power-on delay time [s] | 0.3 | | |
| Min. response time switching output [ms] | 3 | | |
| Damping for the switching output (dAP) [s] | 0...4 | | |
| Software / programming | | | |
| Adjustment of the switch point | programming unit / teach function | | |
| Environment | | | |
| Ambient temperature [°C] | -25...80 | | |
| Storage temperature [°C] | -40...100 | | |
| Protection | IP 67 | | |
| Tests / approvals | | | |
| EMC | EN 61000-4-2 ESD: | 4 kV CD / 8 kV AD | |
| | EN 61000-4-3 HF radiated: | 10 V/m | |
| | EN 61000-4-4 Burst: | 2 kV | |
| | EN 61000-4-6 HF conducted: | 10 V | |
| Shock resistance | DIN IEC 68-2-27: | 50 g (11 ms) | |
| Vibration resistance | DIN IEC 68-2-6: | 20 g (10...2000 Hz) | |
| Mechanical data | | | |
| Process connection | G ¼ A / M5 I | | |
| Materials (wetted parts) | stainless steel (303S22); ceramics; FPM (Viton) | | |
| Housing materials | stainless steel (304S15); PA | | |
| Switching cycles min. | 100 million | | |
| Weight [kg] | 0.197 | | |
| Displays / operating elements | | | |
| Display | Power | LED green | |
| | Switching status | 2 x LED yellow | |
| Electrical connection | | | |
| Connection | M12 connector; gold-plated contacts | | |
| **Wiring** | | | |

# PP7022 - Electronic pressure sensor - eclass: 27201302 / 27-20-13-02

Pin connection when delivered:
Pin 2 = Teach input
Pin 4 = switching output/
communication with the
programming unit (e.g. PP2000)


| | |
|---|---|
| Remarks | |
| Remarks | [1]) Operating voltage for PP2000 with sensor: min. 18 V DC<br>*) BFSL = Best Fit Straight Line / LS = Limit Value Setting<br>**) with temperature fluctuations < 10 K<br>***) in % of the span per year |
| Pack quantity [piece] | 1 |