

PP7530

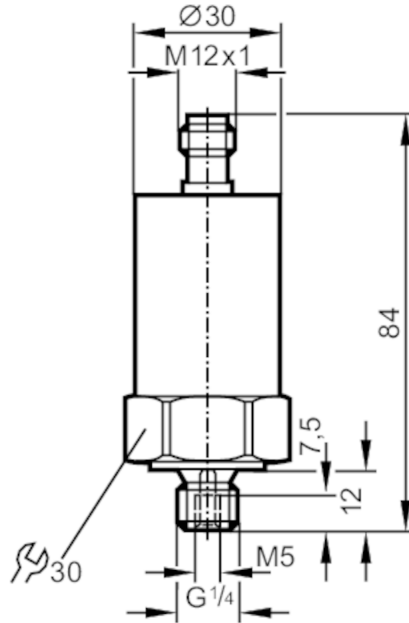


Pressure switch with ceramic measuring cell

PP-400-SBG14-QFRKG/US/ IV

Article no longer available - archive entry

replaced by: PP7550



Product characteristics

| | | | |
|--------------------|--|--------------|------------|
| Output signal | switching signal | | |
| Measuring range | 0...400 bar | 0...5800 psi | 0...40 MPa |
| Process connection | threaded connection G 1/4 external thread internal thread M5 | | |

Application

| | | | |
|----------------------------|--|-----------|---------|
| Special feature | Gold-plated contacts | | |
| Application | for industrial applications | | |
| Media | liquids and gases | | |
| Conditionally suitable for | For gaseous media the application is limited to max. 25 bar. | | |
| Medium temperature [°C] | -25...90; (on request: -40...90 °C) | | |
| Pressure rating | 600 bar | 8700 psi | 60 MPa |
| Min. bursting pressure | 1000 bar | 14500 psi | 100 MPa |
| Type of pressure | relative pressure | | |

Electrical data

| | | | |
|---------------------------------|-----------------|--|--|
| Operating voltage [V] | 9.6...30 DC | | |
| 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 | | |
|------------------------------|------------------------------|--|--|



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| Outputs | | | |
|---|------------------------|---|---------------------------------|
| Total number of outputs | | 2 | |
| Output signal | | switching signal | |
| 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] | 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...400 bar | 0...5800 psi 0...40 MPa |
| Set point SP | | 4...400 bar | 60...5800 psi 0.4...40 MPa |
| Reset point rP | | 2...398 bar | 30...5770 psi 0.2...39.8 MPa |
| In steps of | | 1 bar | 10 psi 0.1 MPa |
| Accuracy / deviations | | | |
| Switch point accuracy | [% of the span] | < ± 1,5 | |
| 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) | |
| Linearity deviation | [% of the span] | < ± 0,5 | |
| 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] | < ± 0,3; (0...80 °C) | |
| Response times | | | |
| Response time | [ms] | < 3 | |
| Damping for the switching output dAP | [s] | 0...4 | |
| Software / programming | | | |
| Adjustment of the switch point | | programming unit / teach function | |
| Interfaces | | | |
| Communication interface | | EPS | |

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| Operating conditions | | | |
|---|---------------------------|--|---------------------|
| Ambient temperature | [°C] | -40...90 | |
| Storage temperature | [°C] | -40...100 | |
| Protection | | IP 68; (BFSL = Best Fit Straight Line; LS = limit value setting) | |
| Tests / approvals | | | |
| EMC | radiation of interference | according to the automotive directive 1995/54/EC | |
| | noise immunity | according to the automotive directive 1995/54/EC annex IX | |
| | HF radiated | 150 V/m | |
| | pulse resistance | ISO 7637 | |
| | supply | ISO 7637-2 (Pulse 1a, 1b, 2, 3a, 3b, 4, 6, 7) | |
| | signal cables | ISO 7637-3 (Pulse a und b) | |
| | noise immunity | EN 61000-6-2 | |
| | EN 61000-4-2 ESD | 8/15 kV | |
| | EN 61000-4-3 HF radiated | 100 V/m | |
| | EN 61000-4-4 Burst | 2 kV | |
| | EN 61000-4-6 HF conducted | 10 V | |
| | Shock resistance | DIN IEC 60068-2-27 / DIN IEC 60068-2-29 | 1000 g |
| | Vibration resistance | DIN IEC 68-2-6 | 20 g (10...2000 Hz) |
| Mechanical data | | | |
| Materials | | stainless steel (1.4301 / 304); FKM; PEI | |
| 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 thread M5 | |
| Restrictor element integrated | | no (can be retrofitted) | |
| Displays / operating elements | | | |
| Display | operation | LED, green | |
| | switching status | 2 x LED, yellow | |
| Teach function | | yes | |
| Remarks | | | |
| Pack quantity | | 1 pcs. | |
| Electrical connection | | | |
| Connector: 1 x M12; Contacts: gold-plated | | | |
| | | | |

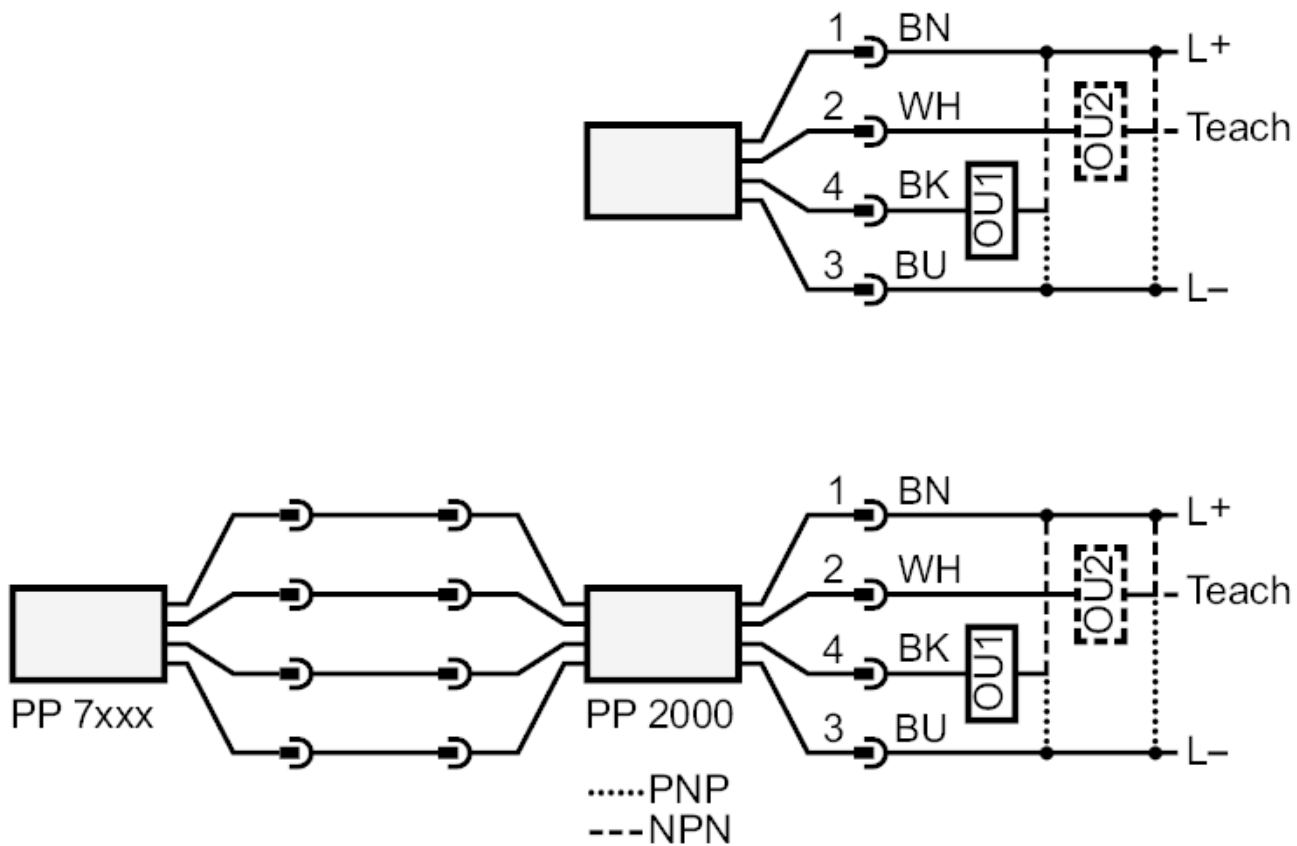
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Connection



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