

New generation available: PN7293

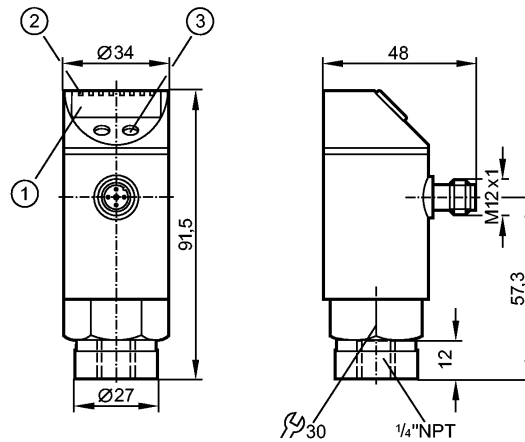
**efectorsoo**

PN7203



PN-025-RBN14-QFRKG/US/ IV

Pressure sensors



- 1: 4-digit alphanumeric display
- 2: LEDs (display unit / switching status)
- 3: Programming button



Product characteristics

Electronic pressure monitor

Quick disconnect

Function programmable

Process connection: 1/4" NPT

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

4-digit alphanumeric display

Measuring range: 0...363 psi / 0...25 bar / 0...2.5 MPa

Application

Application

Type of pressure: relative pressure  
Liquids and gases

|                         |          |         |        |
|-------------------------|----------|---------|--------|
| Pressure rating         | 2175 psi | 150 bar | 15 MPa |
| Bursting pressure min.  | 5075 psi | 350 bar | 35 MPa |
| Medium temperature [°C] | -25...80 |         |        |

Electrical data

Electrical design

DC PNP/NPN

Operating voltage [V] 18...36 DC 1)

Current consumption [mA] < 50

Insulation resistance [MΩ] > 100 (500 V DC)

Protection class III

Reverse polarity protection yes

Overvoltage protection [V] up to 40 V

Outputs

Output

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

Output function 2 x normally open / closed programmable or 1 x normally open / closed programmable + 1 x normally closed (diagnostic function)

Current rating [mA] 250

Voltage drop [V] < 2

Short-circuit protection yes (non-latching)

Switching frequency [Hz] ≤ 170

**PN7203 - Electronic pressure monitor - eclass: 27201302 / 27-20-13-02**

|  |  |                              |                 |
|--|--|------------------------------|-----------------|
| Measuring / setting range  |  |                              |                 |
| Measuring range  | 0...363 psi  | 0...25 bar                   | 0...2.5 MPa     |
| Setting range  |  |                              |                 |
| Set point, SP  | 4...362 psi  | 0.2...25.0 bar               | 0.02...2.50 MPa |
| Reset point, rP  | 2...360 psi  | 0.1...24.9 bar               | 0.01...2.49 MPa |
| in steps of  | 2 psi  | 0.1...24.9 bar               | 0.01 MPa        |
| Factory setting  | SP1 = 90 psi; rP1 = 84 psi<br>SP2 = 272 psi; rP2 = 264 psi   |                              |                 |
| Accuracy / deviations  |  |                              |                 |
| Accuracy / deviations (in % of the span)   |  |                              |                 |
| Switch point accuracy  | < ± 0.5  |                              |                 |
| Characteristics deviation *)   | < ± 0.25 (BFSL) / < ± 0.5 (LS)   |                              |                 |
| Hysteresis   | < ± 0.25   |                              |                 |
| Repeatability **)  | < ± 0.1  |                              |                 |
| Long-term stability ***)   | < ± 0.05   |                              |                 |
| Temperature coefficients (TEMPCO) in the temperature range -20...80° C (in % of the span per 10 K) |  |                              |                 |
| Greatest TEMPCO of the zero point  | 0.2  |                              |                 |
| Greatest TEMPCO of the span  | 0.2  |                              |                 |
| Reaction times   |  |                              |                 |
| Power-on delay time [s]  | 0.3  |                              |                 |
| Delay time programmable dS, dr [s]   | 0; 0.2...50  |                              |                 |
| Integrated watchdog  | yes  |                              |                 |
| Software / programming   |  |                              |                 |
| Programming options  | hysteresis / window function; N.O. / N.C; diagnostic function; output polarity; on delay, off delay; damping; display unit |                              |                 |
| Interfaces   |  |                              |                 |
| IO-Link Device   |  |                              |                 |
| Transfer type  | COM2 (38.4 kBaud)  |                              |                 |
| IO-Link revision   | 1.1  |                              |                 |
| IO-Link Device ID  | 329 d / 00 01 49 h   |                              |                 |
| Profiles   | no profile   |                              |                 |
| SIO mode   | yes  |                              |                 |
| Required master port class   | A  |                              |                 |
| Process data analogue  | 1  |                              |                 |
| Process data binary  | 2  |                              |                 |
| Min. process cycle time [ms]   | 2.3  |                              |                 |
| Environment  |  |                              |                 |
| Ambient temperature [°C]   | -20...80 (UB < 32 V) / -20...60 (UB > 32 V)  |                              |                 |
| Storage temperature [°C]   | -40...100  |                              |                 |
| Protection   | IP 65  |                              |                 |
| Tests / approvals  |  |                              |                 |
| EMC  | EN 61000-6-2<br>EN 61000-6-3   |                              |                 |
| Shock resistance   | DIN EN 60068-2-27  | 50 g (11 ms)                 |                 |
| Vibration resistance   | DIN EN 60068-2-6   | 20 g (10...2000 Hz)          |                 |
| MTTF [Years]   | 219  |                              |                 |
| Mechanical data  |  |                              |                 |
| Process connection   | ¼" NPT   |                              |                 |
| Materials (wetted parts)   | stainless steel (303S22); ceramics; FPM  |                              |                 |
| Housing materials  | stainless steel (304S15); stainless steel 316L / 1.4404; PC; PBT; PEI; FPM; PTFE   |                              |                 |
| Switching cycles min.  | 100 million  |                              |                 |
| Weight [kg]  | 0.266  |                              |                 |
| Displays / operating elements  |  |                              |                 |
| Display  | Display unit   | 3 x LED green                |                 |
|  | Switching status   | 2 x LED yellow               |                 |
|  | Function display   | 4-digit alphanumeric display |                 |
|  | Measured values  | 4-digit alphanumeric display |                 |

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Electrical connection

Connection

M12 connector; gold-plated contacts

**Wiring**

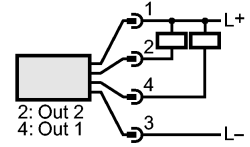
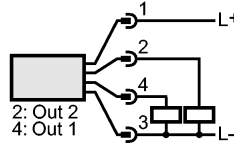
Programming of the output function

-----OUT1-----

Hno = hysteresis / normally open  
 Hnc = hysteresis / normally closed  
 Fno = window function / normally open  
 Fnc = window function / normally closed

-----OUT2-----

Hno = hysteresis / normally open  
 Hnc = hysteresis / normally closed  
 Fno = window function / normally open  
 Fnc = window function / normally closed  
 dESI = diagnostic function (normally closed)



Remarks

Remarks

- 1) to EN50178, SELV, PELV
- \*) BFSL = Best Fit Straight Line / LS = Limit Value Setting
- \*\*\*) with temperature fluctuations < 10 K
- \*\*\*) in% of the span / 6 months

Pack quantity

[piece]

1

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