

APPLICATIONS

- HVAC Systems
- Energy Management Systems
- Static Duct Pressure
- Cleanroom Pressure
- Oven Pressurization & Furnace Draft Controls

SPECIAL FEATURES

- Optional 3.5 Digit LCD Display 0.5% FS Accuracy
- NEMA 4 Rated Housing
- Optional Static Pressure Probe
- PG-9, PG-13 or Conduit Electrical Termination
- 24 VAC or 24 VDC Excitation
- CE & RoHS Compliant



Description

PB570 differential pressure switch with measuring ranges (4-20mA) and up to 2 relais outputs. For monitoring and indicating low pressures of air or non-flammable and non-aggressive gases. Possible applications: Monitoring of air filters, fans, industrial cooling air cycles as well as overheating protection, flows in air ducts.

The PB570 Series Differential Pressure Transmitters provide a very cost effective solution for pressure applications that require high accuracy over very low operating pressure ranges. The sensor is a solid state device and hence offers reliability and long life. The series is designed for use with non-corrosive, non-ionic working fluids such as air, dry gases and the like. (Fluids must generally be compatible with plastic, aluminium, RTV, Silicon and Glass.)

Ftisensor PB570 is the most rugged high accuracy, low differential pressure transducer on the market. It delivers accuracies of $\pm 1\%$ FS (without display), $\pm 0.5\%$ FS (with display), and optional $\pm 0.25\%$ FS and $\pm 0.4\%$ FS accuracies, and pressure ranges from 0.1" W.C. up to 100" W.C. The PB570 is housed in a robust, NEMA 4 rated enclosure and has an optional static pressure probe reducing installation and material costs. The PB570 is offered with an optional LCD display and a standard accuracy of $\pm 0.5\%$ making it ideal for high accuracy Pharmaceutical applications.

Customization is Standard

PB570, unlike most competitors, offers many mechanical and electrical options that can be integrated into existing designs. The optional 0.25" diameter pressure probe is made of sturdy extruded aluminum and is designed with baffles to prevent velocity pressure errors which saves money and reduces time on the job site.

Robust Enclosure for Difficult Applications

PB570 is housed in a NEMA 4 rated housing and is built to withstand harsh environments. The PB570 is available in both wall and duct mount providing the installer with flexible mounting options. The wall mount allows the sensor to be installed anywhere, whereas the duct probe configuration is designed to maximize space efficiency in difficult applications.

The Setra Sensor

The core technology of the PB570 is the all stainless steel capacitive sensing element. Ftisensor designs and manufactures all of their sensing elements resulting in full control over the process and quality of every single sensor. The welded dead-ended capacitive sensors requires minimal amplification and delivers excellent accuracy and longterm stability. Ftisensor technology has been used in over 8 million installations and has the highest field acceptance rate in the industry.

- **Suitable for Harsh Environments**
- **Optional LCD Display**
- **$\pm 0.5\%$, 1% FS Accuracy**

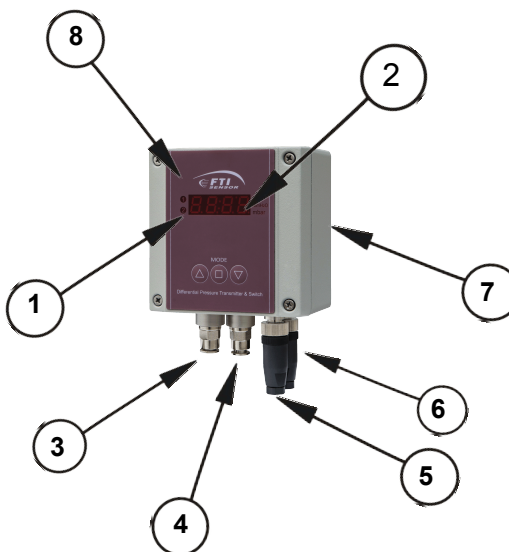
PB570 Features:

- Optional 3.5 Digit LCD Display w/ 0.5% FS Accuracy
- NEMA 4 Rated Housing
- Optional Static Pressure Probe
- PG-9, PG-13 or Conduit Electrical Termination
- 24 VAC or 24 VDC Excitation
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Applications:

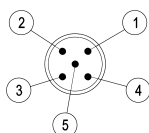
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- 1 Indicator light
- 2 LC display
- 3 Process connection(+)
- 4 Process connection (-)
- 5 M12 connector 2
- 6 M12 connector 1
- 7 Lower part of casing
- 8 Casing lid

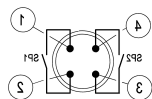


GENERAL SPECIFICATIONS

Auxiliary energy



- 1 Power supply (+Ub)
- 2 Output (- Sig)
- 3 Power supply (-Ub)
- 4 Output (+ Sig)
- 5 not connected



- 1 Switch output 1
- 2 Switch output 1
- 3 Switch output 2
- 4 Switch output 2

*2 potential-free relay contacts

Performance Data				Physical Description	
	Standard	Optional		Case	IP65/NEMA 4 Plastic Glass-Filled Polycarbonate UL94V-0 Case
Accuracy RSS ¹ (at constant temp)	±1.0% FS	±0.5% FS	±0.25% FS	Electrical Connection	Screw Terminal Strip Inside of Case
Non-Linearity, BFSL	±0.98% FS	±0.38% FS	±0.22% FS	Electrical Terminations	PG-9/PG13.5 Strain Relief, 1/2" Conduit Opening, or 9 Pin D-Sub Connector*
Hysteresis	±0.10% FS	±0.10% FS	±0.10% FS	Zero and Span Adjustments	Accessible Inside of Case
Non-Repeatability	±0.05% FS	±0.05% FS	±0.05% FS	Weight (approx.)	9.0 Ounces (255 grams) 9.5 Ounces (Duct Probe Assembly)
Explosion-proof: EX ia II CT4 (PB5702)				Electrical Data (Current)	
Pressure Media				Circuit	3-Wire, Protected from Miswiring
Thermal Effects ^{2,3}				Output ⁷	4 to 20 mA ⁴
Compensated Range °F (°C)	+40 to +150 (+5 to +65)			Bidirectional Output at Zero	12 mA
Zero/Span Shift %FS/°F (°C)	±0.033 (±0.06)			Min. Loop Supply Voltage (VDC)	9 + 0.02 x (Resistance of Receiver plus line)
Maximum Line Pressure	10 PSI			Max. Loop Supply Voltage (VDC)	30 + 0.004 x (Resistance of Receiver plus line)
Overpressure	Up to 10 PSI (Range Dependent)			Electrical Data (Voltage)	
Long-Term Stability	0.1% FS Total			Circuit	3-Wire (Exc, Gnd, Sig), Protected from Miswiring
Environmental Data				Excitation (for 0-5 VDC Output)	9 to 30 VAC / 12 to 40 VDC
Operating ⁶ Temperature °F (°C)	-4to +158 (-20 to +70)			Excitation (for 0-10 VDC Output)	11 to 30 VAC / 13 to 40 VDC
Storage Temperature °F (°C)	-4to +158 (-20 to +70)			Output ³	0 to 5 VDC ⁵ / 0 to 10 VDC ⁵

Assembly

Attachment boreholes on the rear for attaching the mounting plates. Wall mounting using the wall mounting plate.
 Panel installation using the panel installation set.
 Assembly of the mounting rails using an adapter.

Wall mounting

