

P992

Low Range Differential Pressure Sensor



Description

The P992 series of pressure sensors incorporates a silicon capacitive sensing element in a compact package.

Using a 5 Vdc input, the sensors provide a 0.25 to 4.0 Vdc output proportional to pressure. Internal temperature compensation provides an accurate, easy to use device.

The innovative design eliminates mounting position effects found on other low pressure differential sensors currently available in the market.

Features

- Rugged Package
- Backward Compatible Mounting Configurations
- Amplified Temperature Compensated Linear Output
- No Position Sensitivity
- EMI/RFI & ESD Protected
- Frequency Output Option
- Superior Output Signal Stability



Applications

- Variable Air Volume Systems (VAV)
- Filter Pressure Monitoring
- Duct Air Flow
- Modulated Furnace Controls
- Combustion Air Flow
- Gaseous Leak Detection

Standard Full Scale Pressure Ranges

- 2, 5, 10" H₂O
- $\pm 1, \pm 2, \pm 5$ " H₂O

Technical Specifications

Note: Performance Specifications with $5\text{v} \pm 0.002\text{ Vdc}$ supply at 25°C

Differential Pressure Ranges: (inches of H ₂ O)	2, 5, 10,
Proof Pressure:	$\pm 1, \pm 2$, and ± 5
Burst Pressure:	1.0 PSI (either port)
Supply Voltage:	1.5 PSI (either port)
Supply Current:	$5.0 \pm 0.5\text{ Vdc}$
Output Voltage (Ratiometric):	4mA Max.
Calibration Tolerance (at 5.0 Vdc supply and no load):	0.25 to 4.0 Vdc
Zero/Null Pressure	0.25 Vdc $\pm 60\text{ mV}$
Span	3.75 Vdc $\pm 60\text{ mV}$
Voltage Ratiometricity:	$\pm 1.5\%$ of span Max.
Temperature Effects (0 to 60°C):	4.75 to 5.25 Vdc supply
Output Impedance:	$\pm 2\%$ of span Max.
Service Life	100 Ohms Max.
Shock:	10,000,000 cycles Min.
	10G at 6ms duration

Vibration:	1G from 20 Hz to 1200 Hz
Operating Temperature:	0 to 60°C
Storage Temperature:	-40°C to +95°C
Humidity:	95% RH, non-condensing
Weight:	2.5 oz. Max.
Electrical Termination:	3 solderable pins, tin plated
Option A & B	Lead wires, 24 AWG, 12" long
Option C	None
Preferred Mounting Position:	1/8" diameter tube fitting with barb
Pressure Connection:	for 3/16 ID tubing
Recommended Interface Impedance:	25K Ohm Min. resistance between transducer output and ground, in parallel with 0.2 uF Max. capacitance
Over-voltage Protection:	16 Vdc
Reverse Polarity Protection:	-6 Vdc



