

Barometric Pressure Sensor

092

Barometric Pressure Sensors convert absolute atmospheric pressure into a linear, proportional voltage, which may be used in any meteorological program. The Model 092 brings in modern digital computer technology. An on board CPU scales pressure measurements, provides temperature compensation and controls communications output.

Features

- Compact size
- Weatherproof enclosure
- Digital and Analog outputs
- Permanent calibration
- Robust construction
- Customer configured output.

These sensors are inherently stable devices that do not require periodic service or routine recalibration.

Operation

The enclosure houses a solid-state pressure transducer, with linearization and amplification electronics along with a low power imbedded CPU.

The Model 092 is contained within a small polycarbonate enclosure, and may be mounted outside or inside a building or other enclosure. Small inlet holes allow the atmospheric pressure access to the sensing element.

The standard range of the 092 is 600 to 1100 hPa suitable for elevations sea level to 10,000 ft. Other ranges can be configured with DIP switches on the board of the barometer. Digital range is always 600 to 1100 hPa.



092 Barometer with Weather Shield Attached

Specifications

Performance

Range:	600 to 1100 hPa (17.72 to 32.48 inch/hg)
Resolution:	0.1 hPa
Temp. Operating Range:	-40°C to 55°C
Temp. Compensated Range:	-40°C to 55°C
Accuracy:	±0.35 hPa @ 20°C ±1.0 hPa (±0.03 in Hg) over full range or ±0.5 hPa over any 200 hPa range.
Long Term Stability	±1.0 hPa in 1 year

Electrical Characteristics

Analog Output:	0-1, 0-2, 0-2.5 or 0-5 VDC (Analog output automatically adjusts from zero to full scale for range selected.)
Digital Output:	RS-232, RS-485 & SDI-12
Digital Protocol:	ASCII Terminal Mode and Modbus RTU for RS-232 and RS-485.
Baud Rates:	1200, 2400, 4800, 9600, & 19.2k
Power Requirement:	10 mA @ 12 VDC, Typical
Power Range	6-16 VDC

Physical Characteristics

092	Weight:	8.8 oz. (250 g)
	Dimensions:	4.72 x 3.14 x 2.16 in (120 x 80 x 55 mm)



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