

Barometric Pressure Sensor

SB-100



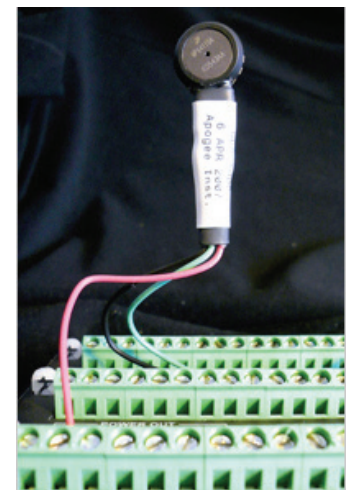
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- Less than 1.5 % error over a pressure range of 15 to 115 kPa (4.43 to 33.96 in Hg)
- Operates over a wide temperature range, -40 to 125 C (-40 to 257 °F)
- High voltage output (0 to 5 V) linearly proportional to barometric pressure
- Low power use, less than 50 mW
- Simple, compact, rugged design

Apogee barometric pressure sensors combine a wide pressure measurement range, wide operating temperature range, high accuracy, low power use, and low cost into a small, rugged package. These sensors are ideal for continuous barometric pressure measurement on weather stations and providing routine pressure measurements for correction of sensor outputs that are sensitive to barometric pressure fluctuations (for example, Apogee oxygen sensors).



SPECIFICATIONS

Measurement Range: 15 to 115 kPa (approximate)

Maximum Pressure Exposure: 400 kPa (exposure beyond this limit may cause permanent damage to sensor)

Sensitivity: 45.9 mV per kPa; 0.459 mV per 0.01 kPa (approximate)

Calibration Factor: 0.0218 kPa per mV (generic slope; reciprocal of sensitivity) and 11.4 kPa (generic intercept)

Measurement Uncertainty: $\pm 1.5\%$ (with generic calibration coefficients)

Measurement Repeatability: $< 0.1\%$

Non-stability (Long-term Drift): $< 1\%$ per year

Non-linearity: $< 1\%$

Warm-up Time: 20 ms

Response Time: 1 ms

Temperature Response: 0.1 % per C

Operating Environment: -40 to 125 C
0 to 100 % relative humidity (non-condensing)

Input Voltage Requirement: 5 V DC

Output Voltage Range: 0 to 5 V DC

Current Drain: 7 mA DC

Dimensions: 1.6 cm diameter

Mass: 5 g

Cable: 12 cm pigtail