



SB-100

DESCRIPTION

The SB-100 combines excellent performance in a small package size at an affordable price. The sensor works well as a stand-alone product or to combine it with sensors affected by barometric pressure, such as our line of oxygen sensors. Typical applications include pressure measurement in weather networks, often for weather forecasting and to correct the output of sensors that are sensitive to pressure changes (for example, Apogee oxygen sensors).



Features:

High Accuracy and Stability

Accurate within 1.5 % across a pressure range of 15 to 115 kPa (4.43 to 34.96 in Hg). Long-term non-stability has been measured continuously indoors and in natural conditions (with sensors mounted inside a datalogger enclosure) for multiple sensors and is less than 0.5 % per year. Temperature effects on signal are less than 1 % across a wide temperature range (-20 to 50 C).

Low Power, Large Signal

Pressure sensor power requirement is approximately 35 mW (7 mA current draw at 5 V DC). Voltage output ranges from 0 to 5 V DC for a pressure range of 15 to 115 kPa.

Small Size

Sensor is small and lightweight enabling easy deployment within a datalogger enclosure, protecting the sensor from the elements.

	SB-100
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	± 1.5 % (with generic calibration coefficients)
Measurement Repeatability	Less than 0.1 %
Non-linearity	Less than 1 %
Warm-up Time	20 ms
Response Time	1 ms
Temperature Response	Less than 0.002 % per C for temperatures greater than 0 C; -0.015 % per C for temperatures less than 0 C
Operating Environment	-40 to 80 C; 0 to 100 % relative humidity (non-condensing)
Input Voltage Requirement	5 V DC
Output Voltage Requirement	0 to 5 V DC
Current Draw	7 mA DC
Dimensions	16 mm diameter
Mass	5 g
Cable	12 cm pigtail
Warranty	4 years against defects in materials and workmanship

Contact info



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