

Barometric Pressure Sensor | SB-100

Affordable measurement of barometric pressure

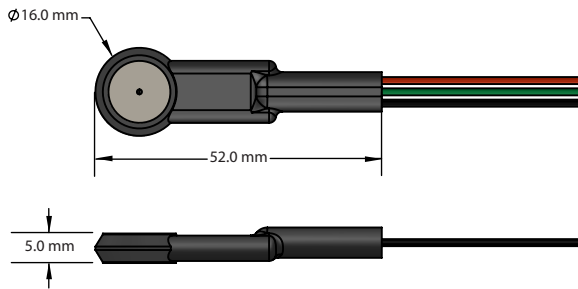
High Accuracy and Stability

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 drain at 5 V DC). Voltage output ranges from 0 to 5 V DC for a pressure range of 15 to 115 kPa.

Dimensions



| | |
|---------------------------|--|
| 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 Range | 0 to 5 V DC |
| Current Drain | 7 mA DC |
| Dimensions | 16 mm diameter |
| Mass | 5g |
| Cable | 12 cm pigtail |
| Warranty | 4 years against defects in materials and workmanship |



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