

BAROMETRIC PRESSURE SENSOR

SB-110 and SB-120



SB-110

SB-120

Features

High Accuracy and Stability

Accurate within ± 1.5 kPa 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 0.1 % per year. Temperature effects on signal are less than 0.1 % per C across a wide temperature range (-40 to 100 C).

Low Power, Large Signal

Pressure sensor power requirement is approximately:

Typical: 30 mW (6 mA, 5 V)

Maximum: 50 mW (10 mA, 5 V)

Voltage input ranges from 0.2 to 4.7 V DC for a pressure range of 15 to 115 kPa.

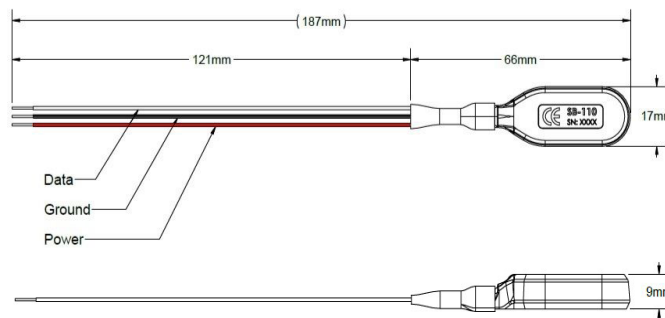
Multiple Deployment Designs

The SB-110 has short lead wires and a small design to be installed within the logger housing.

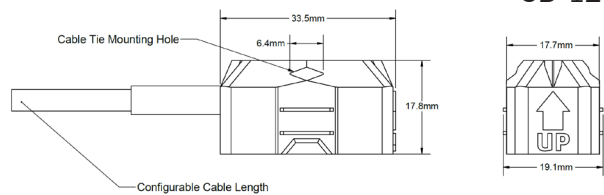
The SB-120 housing and cable is protective against weather, enabling outdoor installation.

Dimensions

SB-110



SB-120



Product Specifications

	SB-110	SB-120
Measurement Range	15 to 115 kPa (approximate)	
Maximum Pressure Exposure	400 kPa (exposure beyond this limit may cause permanent damage to sensor)	
Sensitivity	45.0 mV per kPa; 0.45 mV per 0.01 kPa (approximate)	
Calibration Factor	0.0224 kPa per mV (generic slope; reciprocal of sensitivity) and 9.63 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	0.01 % per C	
Operating Environment	-40 to 100 C; 0 to 100 % relative humidity (non-condensing)	
Input Voltage Requirement	4.75 to 5.25 V DC	
Analog Output	0.2 to 4.7 V DC	
Current Draw	Typ 6 mA DC, Max 10 mA DC	
Dimensions	187 mm x 17 mm x 9 mm (L x W x H)	33.5 mm x 19.1 mm x 17.8 mm (L x W x H)
Mass	5 g	
Cable	12 cm pigtail	5 m, 10 m, 20 m, or customized lead length
Warranty	4 years against defects in materials and workmanship	