

# Barometric Pressure Sensor

## Model CS100



*The CS100 provides accurate, unattended measurements of barometric pressure over a wide range of elevations.*

The CS100 Barometer uses Setra's Setraceram™ capacitive sensor and IC analog circuit to measure barometric pressure over a 600 to 1100 millibar range. The CS100 outputs a linear signal of 0 to 2.5 Vdc allowing it to be directly connected to Campbell Scientific dataloggers. The minimum sensor warm-up and measurement time is one second. The sensor features a built in power switch to minimise power use between measurements.

### Construction and Mounting

The sensor is housed in a stainless steel and polyester case fitted with an 1/8" barbed fitting for pressure connection. A removable terminal strip provides for datalogger power and signal connections. The

barometer is intended to mount inside an ENC 12/14 or larger enclosure.

### "High Altitude" Version

Campbell Scientific offers a version of the CS100 that measures barometric pressure over a 500 to 1100 millibar range. Contact us for more information.

### High Reliability

The CS100 comes with a 3 year warranty.

## Specifications

### Total Accuracy<sup>1</sup>:

- ±0.5 mb @ +20°C
- ±1.0 mb @ 0° to 40°C
- ±1.5 mb @ -20° to +50°C
- ±2.0 mb @ -40° to +60°C

**Linearity:** ±0.4 mb

**Hysteresis:** ±0.05 mb

**Repeatability:** ±0.03 mb

**Resolution:** ±0.01 mb

**Long-Term Stability:** ±0.1 mb per year

**Response time:** <100 ms

**Operating Temperature:**  
- 40° to +60°C

**Dimensions:** 9.1 cm x 6.1 cm x 2.5 cm (3.6" x 2.4" x 1.0")

**Weight:** 135 g (4.8 oz)

**Excitation:** 9.5 to 28 Vdc

**Current Consumption:** <3 mA (active), <1 µA (sleep mode)

**Warm-up time:** 1 s

**CE Compliant**

<sup>1</sup>The root sum squared (RSS) of end point non-linearity, hysteresis, repeatability, and calibration uncertainty.

These are sensor errors only. Please refer to the relevant datalogger datasheets to consider the likely total measurement errors and resolution.