



## Standard Barometer

Resides inside a weather-proof enclosure

### Overview

The CS100 measures barometric pressure for the range of 600 to 1100 hPa (mBar). This range equates to from below sea level (as in a mine) up to 12,000 feet above sea level. Designed for

use in environmental applications, the CS100 is compatible with all Campbell Scientific data loggers.

### Benefits and Features

- › Optimized to mount in Campbell Scientific enclosures
- › Low power consumption
- › Three-year warranty
- › 500 to 1100 hPa (mBar) and 800 to 1100 hPa (mBar) versions also available by special order—contact Campbell Scientific
- › Integral switching circuit limits power consumption to measurement cycle

### Detailed Description

The CS100 is a Campbell Scientific version of Setra's model 278 barometer. It uses Setra's Setraceram capacitive sensor and IC analog circuit to measure barometric pressure. The CS100 includes a 0.76 m (2.5 ft) cable and a terminal strip for data logger power and signal connections.

The CS100 is encased in a stainless-steel and polyester case fitted with an 1/8 in. barbed fitting for pressure connection. It includes an internal switching circuit that allows the data logger to power the barometer only during measurement, which reduces power usage.

### Specifications

-NOTE-	<i>1 hPa = 1 mBar</i>	Resolution	±0.01 hPa
Pressure Range	600 to 1100 hPa	Excitation	9.5 to 28 Vdc
Long-Term Stability	±0.1 hPa per year	Accuracy	› ±1.5 hPa (@ -20° to +50°C) › ±1.0 hPa (@ 0° to 40°C)
Response Time	< 100 ms		

- › Accuracy refers to the root sum squared (RSS) of end point non-linearity, hysteresis, repeatability, and calibration uncertainty.
- ›  $\pm 0.5$  hPa (@ +20°C)
- ›  $\pm 2.0$  hPa (@ -40° to +60°C)

Linearity	$\pm 0.4$ hPa
Hysteresis	$\pm 0.05$ hPa
Repeatability	$\pm 0.03$ hPa
Warm-up Time	< 1 s

External Trigger Voltage	› 3 to 28 Vdc (operating mode) › 0 Vdc (sleep mode)
Current Consumption	› < 3 mA (active) › < 1 $\mu$ A (sleep mode)
Operating Temperature Range	-40° to +60°C
Cable Diameter	0.8 cm (0.3 in.)
Cable Length	0.8 m (2.5 ft)
Dimensions	9.1 x 6.1 x 2.5 cm (3.6 x 2.4 x 1.0 in.)
Weight	135 g (4.8 oz)

For comprehensive details, visit: [www.campbellsci.com/cs100](http://www.campbellsci.com/cs100) 

