



## Wider Pressure Range

Resides inside weatherproof enclosure

### Overview

The CS106, manufactured by Vaisala, measures barometric pressure for the range of 500 to 1100 hPa (mBar). This range equates to from below sea level (as in a mine) to over 15,000

feet above sea level. Designed for use in environmental applications, the CS106 is compatible with most Campbell Scientific dataloggers.

### Benefits and Features

- › Optimized to mount in Campbell Scientific enclosures
- › Integral switching circuit limits power consumption to measurement cycle
- › Three-year warranty

### Detailed Description

The CS106 uses Vaisala's BAROCAP silicon capacitive sensor to measure barometric pressure. It is encased in a plastic shell (ABS/PC blend) fitted with an intake valve for pressure equilibration.

The CS106 outputs a linear signal of 0 to 2.5 Vdc, which allows the barometer to be directly connected to a Campbell Scientific datalogger. An internal switching circuit allows the datalogger to power the CS106 only during measurement, which reduces power consumption.

### Specifications

-NOTE-	$1 \text{ hPa} = 1 \text{ mBar}$
Pressure Range	500 to 1100 hPa
Long-Term Stability	$\pm 0.1 \text{ hPa per year}$
Settling Time	1 s to reach full accuracy after power-up

Response Time	500 ms to reach full accuracy after a pressure step
Output Voltage	0 to 2.5 Vdc
Supply Voltage	10 to 30 Vdc

Accuracy	<ul style="list-style-type: none"> <li>› Accuracy refers to the root sum squared (RSS) of end point non-linearity, hysteresis, repeatability, and calibration uncertainty.</li> <li>› <math>\pm 0.3</math> hPa (@ +20°C)</li> <li>› <math>\pm 0.6</math> hPa (@ 0° to 40°C)</li> <li>› <math>\pm 1.0</math> hPa (@ -20° to +45°C)</li> <li>› <math>\pm 1.5</math> hPa (@ -40° to +60°C)</li> </ul>
Linearity	$\pm 0.25$ hPa
Hysteresis	$\pm 0.03$ hPa

Repeatability	$\pm 0.03$ hPa
Calibration Uncertainty	$\pm 0.15$ hPa
Current Consumption	<ul style="list-style-type: none"> <li>› &lt; 4 mA (active)</li> <li>› &lt; 1 <math>\mu</math>A (quiescent)</li> </ul>
Operating Temperature Range	-40° to +60°C
Dimensions	6.8 x 9.7 x 2.8 cm (2.7 x 3.8 x 1.1 in.)
Cable Length	76.2 cm (30 in.)
Weight	90 g (3.2 oz)

For comprehensive details, visit: [www.campbellsci.com/cs106](http://www.campbellsci.com/cs106) 

