



PRODUCT



CS106
Barometer



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 data loggers. The CS106 has an attached 76.2 cm (30 in.) cable.

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 data logger. An internal switching circuit allows the data logger to power the CS106 only during measurement, which reduces power consumption.

Specifications

-NOTE-	1 hPa = 1 mBar
Pressure Range	500 to 1100 hPa
Long-Term Stability	± 0.1 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	Linearity	±0.25 hPa
Elevation	~609.6 m (2,000 ft) below sea level (as in a mine) to 4,572 m (15,000 ft) above sea level	Hysteresis	±0.03 hPa
Accuracy	» ±1.5 hPa (@ -40° to +60°C) » Accuracy refers to the root sum squared (RSS) of end point non- linearity, hysteresis, repeatability, and calibration uncertainty. » ±0.3 hPa (@ +20°C) » ±0.6 hPa (@ 0° to 40°C) » ±1.0 hPa (@ -20° to +45°C)	Repeatability	±0.03 hPa
		Calibration Uncertainty	±0.15 hPa
		Current Consumption	» < 1 µA (quiescent) » < 4 mA (active)
		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)