

# Barometric Pressure Sensor

## Model CS115

The CS115 Barometric Pressure Sensor uses Druck's resonant silicon technology to measure barometric pressure over a 600 to 1100 millibar range. It outputs a variable frequency of 600 to 1100 Hz that Campbell Scientific dataloggers can directly measure (our CR510, CR10(X), CR1000, CR23X, and CR5000 dataloggers use a period averaging instruction and our CR7 and CR9000(X) dataloggers use a pulse count instruction). Sensor warm-up and measurement time is two seconds maximum.

### Construction and Mounting

The CS115 includes an intake valve for pressure equilibration, a terminal block connector for datalogger power and signal connections, and a 2.5 foot cable. A circuit included in the CS115 allows 12 volts to be switched from the datalogger to the sensor only during measurement, thereby reducing power requirements. Mounting flanges are provided for attaching the sensor to the backplate of an ENC 12/14 or larger enclosure.



The CS115 provides accurate barometric pressure measurements for a wide range of elevations.

### Manufacturer's Specifications

Operating Temperature:	-40° to +60°C
Measurement Range:	600 to 1100 mb
Overpressure Limit:	1375 mb
Humidity Requirements:	non-condensing
Media Compatibility:	non-corrosive gas
Supply Voltage:	9.5 to 24 Vdc
Current Consumption:	8 mA nominal
Frequency Output:	600 to 1100 Hz; -2.5 to +2.5 Vdc zero crossing square wave
Total Accuracy <sup>1</sup> :	±0.3 mb @ +20°C ±0.5 mb @ -10° to +50°C ±1.5 mb @ -20° to +60°C ±2.0 mb @ -40° to +60°C

Long-Term Stability:	< 0.1 mb per year
Dimensions (main box):	2.4" x 2.4" x 1.2" (6.0 cm x 6.0 cm x 2.9 cm)
Weight:	4.4 oz (125 g)
Warm-up Time:	< 2 s
Response Time: (100% response)	300 ms
EMC Compatibility:	Emissions - BS EN 50081-1 Immunity - BS EN 61000-6-2
Trigger:	ON 1 to 24 Vdc (device supplied in trigger mode) OFF 0 Vdc

<sup>1</sup>Non-linearity, hysteresis, and repeatability over calibrated temperature range.



**CAMPBELL SCIENTIFIC, INC.**

815 W. 1800 N. • Logan, Utah 84321-1784 • (435) 753-2342 • FAX (435) 750-9540  
Offices also located in: Australia • Brazil • Canada • England • France • South Africa • Spain

Copyright © 2002, 2004  
Campbell Scientific, Inc.  
Printed November 2004