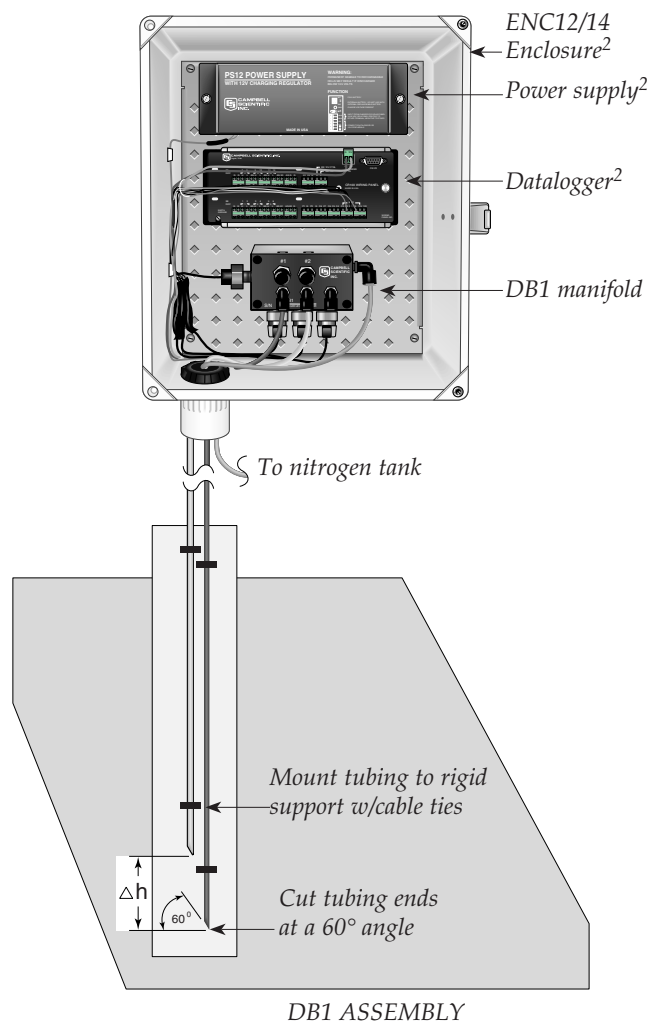


# Double Bubbler Liquid Level Sensor

## Model DB1

The DB1 is a self-calibrating system that measures water level (or other liquids), such as stage measurement in channels and stilling wells. It detects level by measuring the pressure required to force nitrogen bubbles from a pair of submerged tubes. The orifices of the tubes are separated by a fixed vertical distance. The pressure line that is measured is determined by the datalogger, which opens and closes valves on the manifold assembly. A single pressure transducer measures each of the tubes, as well as the atmospheric pressure (see figure below). This technique compensates for temperature effects and long-term drift in the transducer, producing a more accurate measurement.

The DB1 can be measured and controlled by Campbell Scientific's CR10X, CR800, CR1000, or CR3000 dataloggers. Its power consumption typically requires a sealed rechargeable battery that is connected to a charging source (solar panel or ac power).<sup>1</sup>



<sup>1</sup>For information on analyzing your system's power requirements please request a copy of Campbell Scientific's Power Supply brochure or Application Note.

<sup>2</sup>DB1 includes manifold only. Datalogger, enclosure, power supply and tubing must be purchased separately.



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