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Digital Anemometer

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DIGITAL ANEMOMETER

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5 May 1975

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ABSTRACT

The digital anemometer is a solid state device utilizing integrated circuits. A wind velocity is optically sensed and the pulsed information is filtered and amplified prior to its arrival at the counter inputs. The display is embodied in MSI circuitry containing LED's, decoder-drivers, latches and counters. This circuitry is controlled by a programmable counter. Operating from a small time base, the controller is precisely timed by counting a preset number of time base pulses. This controller provides two synced control pulses of precise duration which allow the display to update over the calibrated time period. Update rates are initiated by a 555 Timer. An additional 555 Timer strobes the display for power conservation purposes.

The remote power supply provides power conversion to the five volt logic level. Included in the remote unit is the slave display which employs three decades of seven segment LED readouts. Power and logic information is transmitted over a twenty foot interconnection cable.