Locus Engineering Inc.

Preliminary

Programmable Endpoint Digital Voltmeter



FEATURES

- 16 bit delta-sigma analog to digital converter
- +2.048V reference +/-0.05% accuracy
- INL: 10ppm of full scale range
- Programmable high and low endpoints
- +/- 0.001 to +/- 999,999 endpoint values
- Calculates y=mx+b line equation with 64 bit precision
- Programmable upper and lower alarm thresholds
- Settings are saved in Flash memory
- 8Hz conversion and display rate
- Alarm output
- ESD protected inputs
- 115.2 Kbaud serial output every measurement
- 1.1"x3.75" package
- 5V to 9V input power
- Backlit display

DESCRIPTION

The E2060 DVM is a compact programmable endpoint digital voltmeter suitable for displaying sensor information with their true values. Input signals are digitized at an 8Hz rate to 16 bits using a delta-sigma A/D converter. Using the user defined high and low endpoints, the microcontroller converts the digitized value to a point on the line y=mx+b with 64 bits precision and then rounds the result prior to being displayed. The DVM also has programmable hysterisis alarm thresholds and alarm output polarity which allows out of normal conditions to be easily interfaced. Signal values are also available on the serial port every measurement. A voltage regulator allows a range of input voltage options.

APPLICATIONS

- Process control
- Instrumentation