

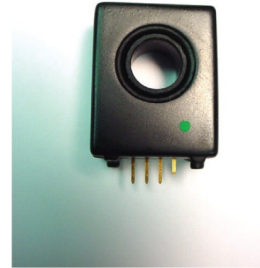
Model CSM-010-B

Current Sensors

+/-10 Ampere, DC to 50KHz Current Sensor

Description

In a compact, 5V logic compatible design, the CSM-010-B bipolar current sensor measures from less than -15 amperes to over 15 amperes with a bandwidth up to 50KHz. Its quiescent output of 2.50v nicely scales mid-range with today's 5V logic and microcomputer ADC inputs. The bandwidth may be easily lowered to match your sampling rates with an addition of a single external capacitor. The vertical design minimizes PWB footprint area and the large current wire opening permits easy dressing of large diameter wire or multiple turns of smaller wire for even higher sensitivity.



Features

- Wideband and DC stable
- Compact, PWB mount
- Highly accurate
- High standoff voltage
- DC motor equipment controls
- Selectable bandwidth
- Low cost

Applications

- Switch mode power supplies
- Solar array monitoring
- Battery 'fuel gauge' measurement

Specifications:

Power Supply:

- Input Voltage: 4.75vdc to 12.5vdc
- Input Current: 10mA typical; 14mA max.
- Protection: 13V zener diode internal (350mW)

Current Sensing Hole:

- Diameter: 0.354 inches
- Current Polarity: positive output with current exiting crimped side of case hole
- Dielectric withstand: 3000vrms, 60Hz, 1 minute

Measured Output:

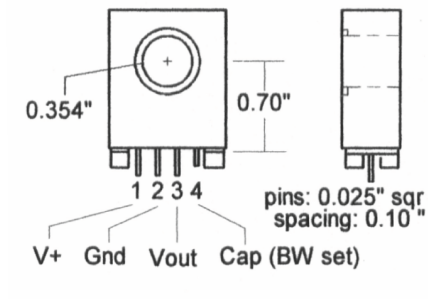
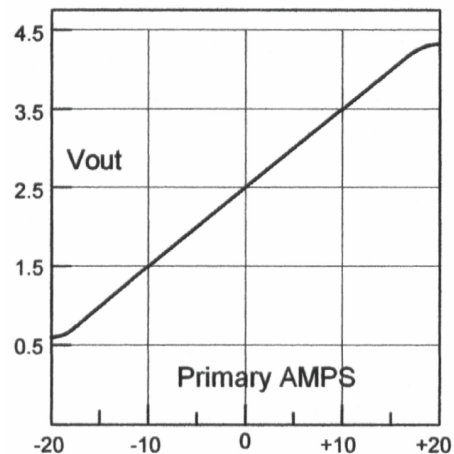
- Quiescent voltage: 2.50 vdc +/- 0.5%
- Current Scaling: 0.10 vdc/ ampere (+/- 2%, 1% typ.)
- Linear range: +/- 15 amps. min.
- Source Resistance & Loading: < 5 ohms, 2mA max.
- Bipolar Current Hysteresis: < 0.5%
- Baseline Noise: (at full BW, no cap) < 5mV rms
- Cap Filter: 10nF □ 10KHz, 100nF □ 1.0KHz

Environmental:

- Operating Temp: -20 degC to 85 degC.
- Storage Temp: -40 degC to 90 degC.
- R/H: 5% to 97%

Physical:

- Weight: 0.5 oz. approx.
- Case material: ABS, flame retarded
- Dimensions: 1.14" H x 0.91" W x 0.472" T



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