

ACS752

Hall-effect current sensor offers higher bandwidth and enhanced accuracy

Allegro has introduced a new product in its ACS75x family of current sensors that offers four times the bandwidth and almost double the accuracy of earlier versions.

The new ACS752 boasts a bandwidth of 50 kHz, compared with 13 kHz for the original ACS750, and an accuracy of 7.5% compared with 13%. It is available in 50 and 100 A versions, and operates over the industrial temperature range from -20°C to +85°C. The device runs off a single +5V supply, provides 3 kV isolation, and has a resistance of only 130 micro-ohms.

A precisely controlled self-aligning assembly process (patents pending) and factory programming of the linear Hall sensor combine to provide a high-level of performance, uniformity, and low thermal drift.

The innovative, lead-free electro-mechanical package integrates the current path, so that there is no need for the user to design a magnetic circuit or thread a conductor through the device.

The package consists of two primary leads that pass the current through a concentrator core and past the sensing element of a Hall-effect integrated circuit. It requires minimal effort to implement on a PC board in a high-volume production environment and may be soldered or welded. The volume of the package is less than one-eighth that of comparable competing current sensors.

The ACS752 is ideally suited to applications where isolation, low power dissipation, and low voltage drop are an advantage. Typical uses are in motor control, power-supply load management, power distribution or overcurrent fault protection.
