

GMW Associates

Clip-on and Clamp-on Current Probes with Analog Signal Output for Test Stand and In-Vehicle Current Monitoring

Presented by (and principal author):

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GMW Clip-on and Clamp-on “Coreless” Current Probes are available with apertures of 27mm, 77mm and 160mm, full-scale current ranges from +/-250A to +/-16kA, and frequency response from dc to 75kHz. They are small cross-section, light-weight, moisture, ice and vibration resistant with an operating temperature range of -40C to +100C. They have no magnetic core eliminating magnetic hysteresis and ringing artifacts. During a primary current overload the output signal electrically limits with the correct sign and then outputs the correct signal within 10us of the current recovering within the Probe nominal current range. The Probes are undamaged by any current overload for any period of time. The Signal and Power Cable disconnects from the Probe enabling it to be threaded through a small aperture in a firewall or protection barrier to the monitoring Data Logger or Scope.

Current Measurement For Electric Vehicle Charger Test

Presented by: Ben Hartzell, ben@gmw.com – *VP Marketing*

GMW will provide a brief overview of test instrumentation for current control and metering in vehicle battery and charging systems. We will compare and contrast:

- Fluxgate-based DC/AC current transducers for high accuracy and resolution measurements;
- Clip-around Rogowski coils with matching analog integrator for ac current measurements from a few Hz to 50Mhz, and can be optimized for accuracy and resolution at a specific frequency;
- Light weight clip-on and clamp-on DC/AC probes suitable for in vehicle tests, both in motion and in climate test chambers;
- 3-component magnetic field probe for measurement and mapping wireless Inductive Power Transfer systems.