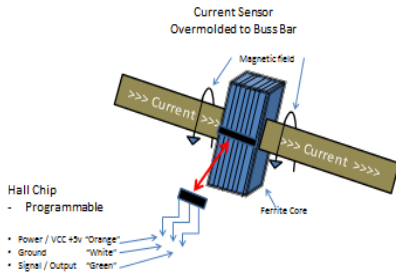
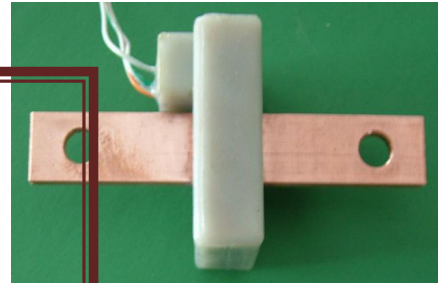


Current Sensor

300A to 1,500A DC Open Loop



By: Fred g. Hendershot



Programmed for:

- *High Accuracy*
- *High Bandwidth*
- *Small Package Size*
- *Overmolded Design*
- *Custom Packaging*
- *Sealed – Tamper proof*

Size per Amp:

300A	20x26x7mm
800A	22x36x12mm
1,500A	30x40x12mm
Dual Sensor	

Description

This Current Sensor design is programmable to adjust for gain or sensitivity. The output unidirectional current sensing applications.

Applications

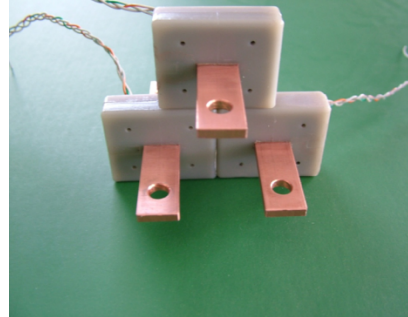
Applications include high voltage and high current power supplies, inverters, hybrid vehicle motor control, battery management sensing, and industrial power monitoring applications.

Benefits

- Wider Bandwidth 120 kHz vs. 17 kHz
- Better Signal to Noise Ratio
- Overmolded
 - Sealed Unit
 - Tamper Proof
 - No Screws – Buss Bar Mounted
 - No Stress on Chip
 - No Vibration Issues

uses an Allegro A136X hall device which any offset voltage and to set the output voltage can be programmed for or for bi-directional current sensing

-
- Special Packaging Available
 - Stackable in any configuration

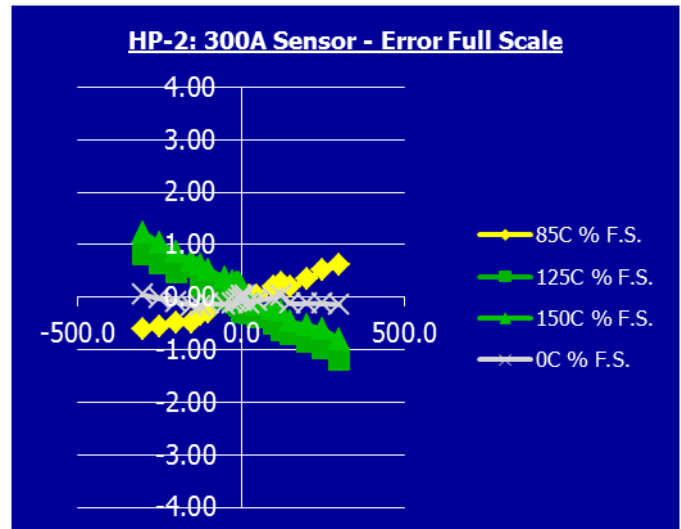
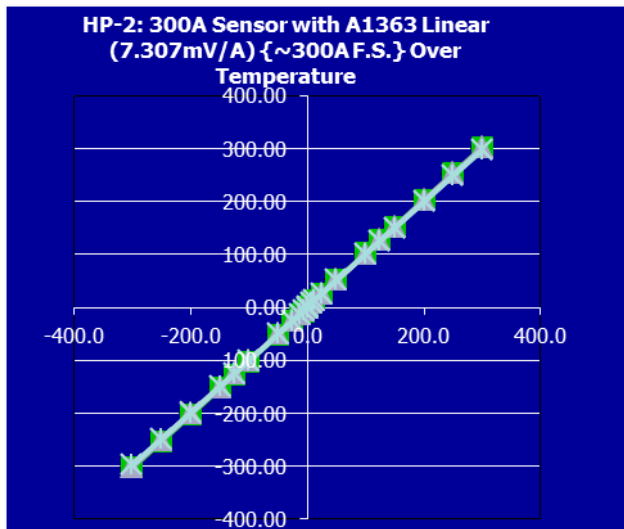


- Lower Connector Cost
- Lower System Cost Overall
 - Secondary Overmolding to Address Unique Packaging Requirements (Saddle approach)
- Integration of:
 - Capacitors
 - Buss Bar
 - Unique Mounting
- Better Overall Temperature Performance
- US Based Engineering, Manufacturing and local Sales

Specification

- Very low losses due to inductive measurement
- Calibrated over temperature -20 to 120C
- Near 1% Error over temperature and full range
- QVO +/-5mV Sense +/-1.5%
 - Temperature performance within temperature range is linearly compensated both for zero gauss (QVO) output and the sensitivity (Gain) on the Hall Chip.
- Fast response time & resolution
 - 120 kHz nominal bandwidth (-3dB)
 - 4 us typical response time ($t_{PROP} + t_{RISE}$)
 - 5.5 mG_{p-p}/√(Hz) output noise density
- Highly programmable via EEPROM memory
 - Finer resolution sensitivity & offset trim (18 total bits)
 - Sensitivity range is adjustable to <0.5% step
 - Non-linear sensitivity and offset trim over temperature enables a new level of output accuracy
 - 30 bits for offset
 - 30 bits for sensitivity
 - All temperature coefficients factory trimmed at Allegro's facility
 - Polarity bit for redundant systems
- Ratio-metric for use in 5 V regulated systems
- IDDQ and SCAN provide high digital reliability

- 5 kV HBM ESD performance
- Improved EMC performance
- Error < +/- 2% error, -40 to 150 °C
- Reduced spiking with high dV/dt events



Thank you for your interest in our new current sensor and the MSS approach to meet the everchanging market demands for innovation and performance.

Purchasing Contact:

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