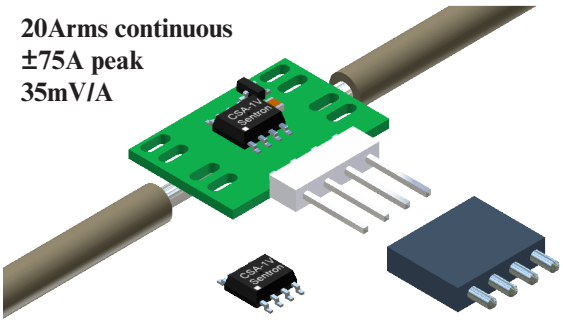
GMW High Voltage Isolation Current Sensor, AN_124KIT

The AN_124KIT provides a easy method of evaluating the Sentron CSA-1VG current sensor IC in a configuration that provides a high dielectric voltage isolation between the primary conductor and the sensor circuitry that may be required for UL applications. The sensor measures the magnetic field created by the current flowing in the conductor and converts it to a voltage proportional to the current. The primary current conductor is on the back side of the PCB and there is a SMD ferrite chip mounted over the conductor to increase the sensitivity and increase immunity to stray magnetic fields. The Sensitivity is 35mV/A with a 20A continuous rating. The kit can respond to short, high current pulses (<25mS) up to 75A.

Connection to the primary conductor is made by soldering the external wires to the conductor on the bottom side of the PCB as shown in the figure below.

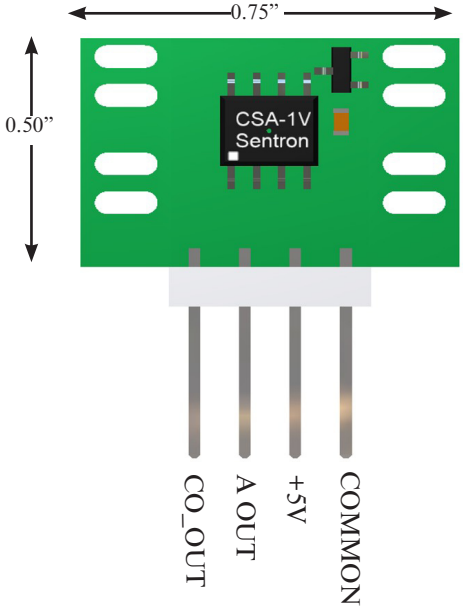
The kit includes a mating connector to facilitate easy interfacing with the PCB board as well as an extra CSA-1VG IC to be used in the customers own layout if desired See the CSA-1VG-SO specification at *http://www.gmw.com* for the specific details of the IC.

20Arms continuous
±75A peak
35mV/A



AN_124KIT with additional CSA-1V & mating connector, (wires not included)

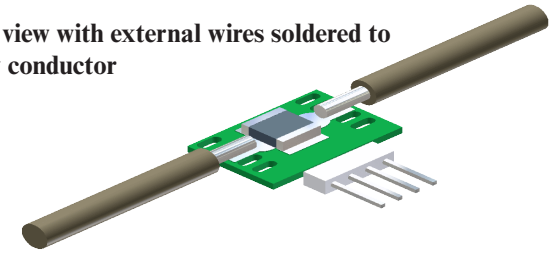
Top View



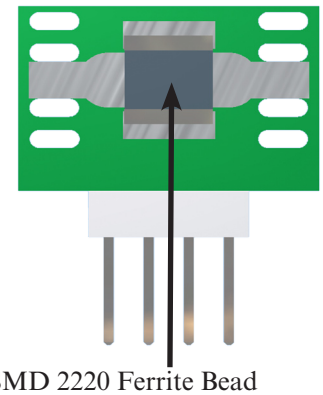
Features

- Measures AC or bidirectional DC currents in external conductors
- Sensitivity of 35mV/A. Linear range to ±60A
- Full scale linear output of 2.5V± 2.0V instantaneously proportional to the primary current
- Supply Voltage of 5V± 10%
- 1kV Isolation between Primary Conductor and Sensor output
- Interface Connector - 4 Pin 0.100” centers (Mating connector included)

Bottom view with external wires soldered to primary conductor

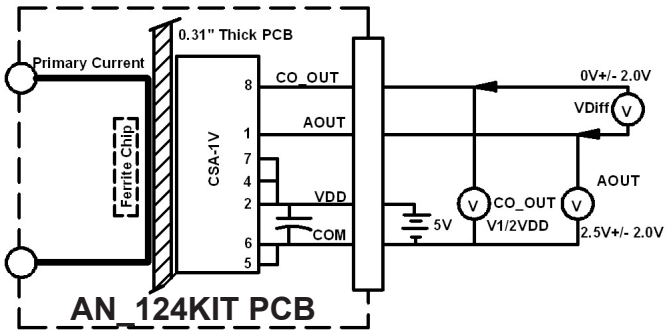


Bottom View showing Conductor and Ferrite



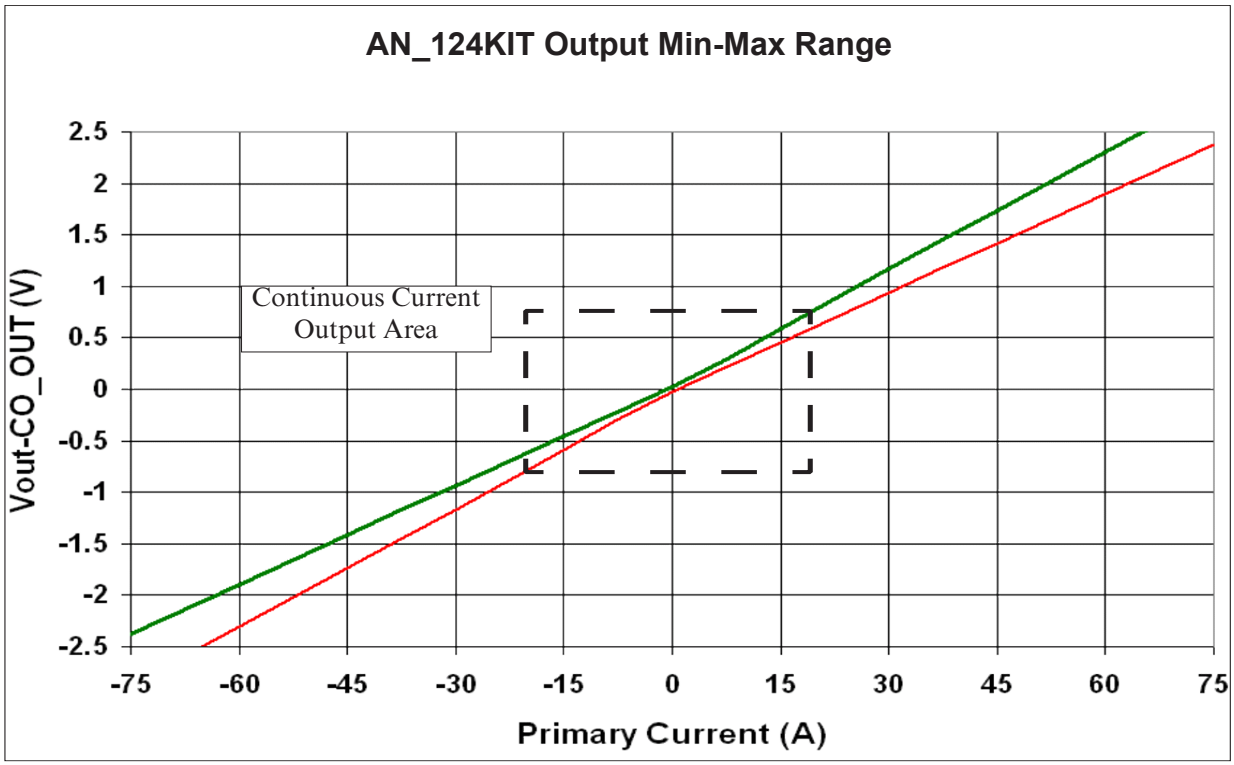
SMD 2220 Ferrite Bead
P/N: Steward HI2220T101R-10

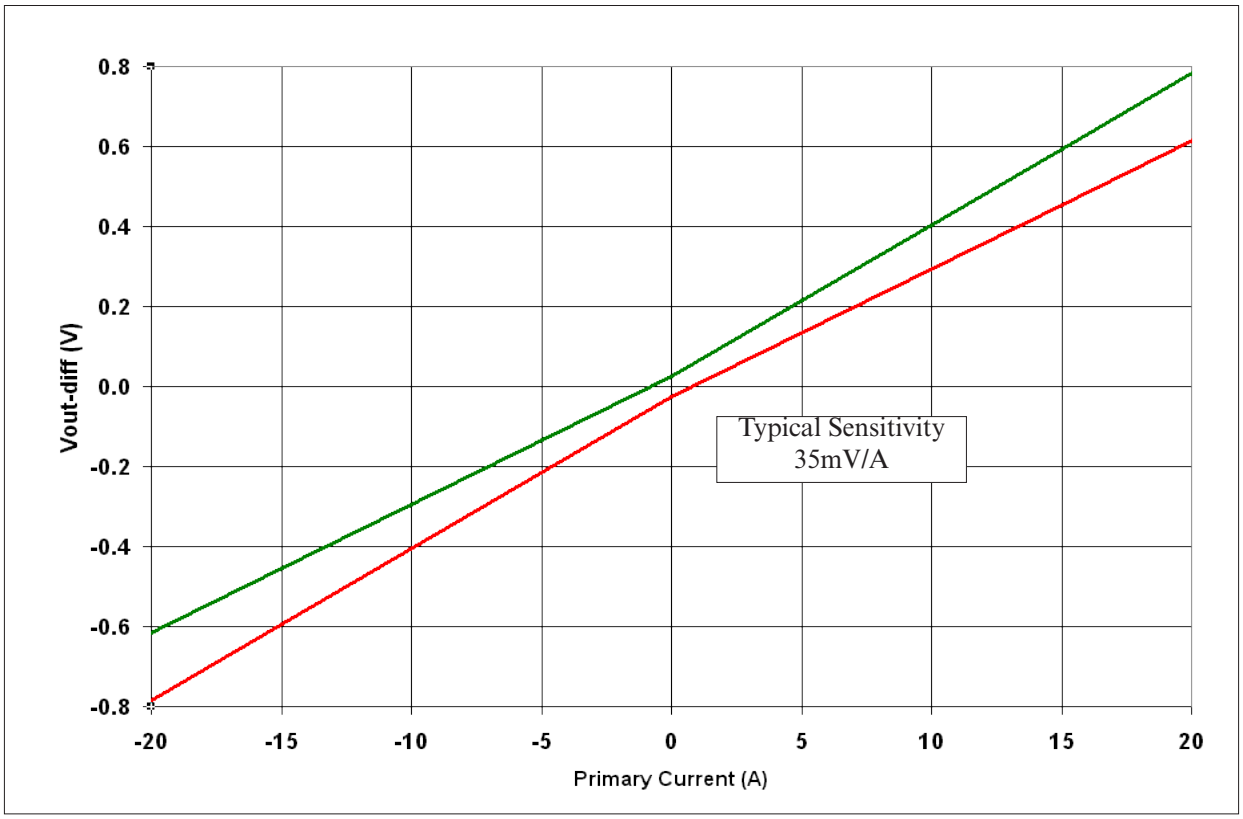
AN_124KIT Electrical Block Diagram and Connection Diagram



Revision Date: 5 JUNE 2008

North American Distributor:
GMW Associates • 955 Industrial Road • San Carlos, CA 94070 • USA
Tel +1 (650) 802-8292 • Fax +1 (650) 802-8298 • sales@gmw.com • www.gmw.com





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