

Advanced Power Technologies, LLC

Application Note-AN030

Title: Test GIC SENSOR input without Hall Effect CT

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Procedure to check the GIC monitoring function without Hall Effect CT

1. Make sure there are no connections to the GIC sensor terminal on the Unit.
2. Power up the unit and measure the 5V across the GIC sensor input channel:1 and channel:4
3. Install a resistor across the channel: 1 and channel: 4. The range of the resistor should be 500 Ω to 1k Ω .
4. Apply 2.5V across V2 using a power supply.
5. Using a separate power source apply 2.5V across V3.
6. Measure the voltage of V1 by using a DMM.
7. Measure the voltage across V4 using a DMM.

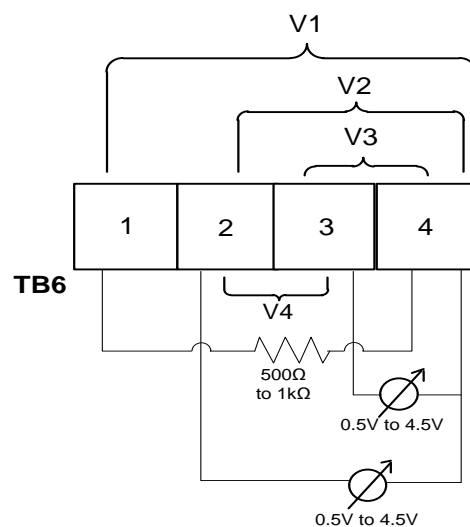


Fig 1: Test connection on ECLIPSE

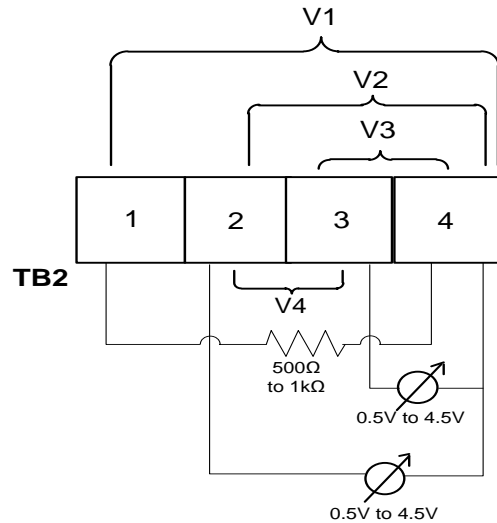


Fig 2: Test Connection on ECLIPSE HECT

8. Calculate the DCL value with the following equation:

$$DCL = 625A \times \frac{V_4}{V_1}$$

9. Check the DCL value reported on the ECLIPSE front panel display. DC load reading normally shows less than 1% error.

Note:

To include the DCL value on the ECLIPSE front panel display, access the MAIN MENU by pressing up/down arrow button. Select SETTINGS -> FRONT PANEL DISPLAY ORDER. Select an analog point and enter the PIN CODE. DCL can be select by pressing up/down arrow button, press enter to confirm the setting.

In case if ECLIPSE HECT measure the analog output on TB3:1 and TB3:2. The DCL value is;

Reading in A = (Reading in mA – 12mA) / 8mA * 500A

Compare this DCL value with the DCL calculated in Step: 8

10. Follow the step: 3 to Step: 9 by varying the supply voltage. The voltage input can be selected between 0.5V to 4.5V, instead of 2.5V.