Applications Notes

Application #1  Monitoring Loads 300 Amps or Less

Application #2  Monitoring Loads from a Current Transformer Secondary

Example

When used with a 2000:5 CT $I_{in} = 2000 \times \left( \frac{I_o}{16} \right)$

$F \left( \frac{I_o}{16} \right) = 10 \text{mA}, \text{ then } I_{in} = 2000 \times \left( \frac{10 - 4}{16} \right) = 750 \text{ amps}$

Application #3  Energizing multiple transducers from a single power supply

Calculating

$I_{in} = \text{ ac Amps measured}$

$I_o = \text{ mA dc out of PCL}$

Rated Input CT Primary Rating (when monitoring a CT)

Rated Input PCL Primary Rating (when monitoring direct)

Where:

$I_{in} = \text{ Rated input } \times \left( \frac{I_o - 4}{16} \right)$

NOTE: Output current of each CT is limited to 30mA max. From this the required by using capacity of the D.C. supply can be calculated by multiplying the total number of CT's times 0.03A to find the maximum requirement output capacity of the supply.

It is possible to achieve an output close to full scale increase output resolution by using multiple turns through the window of the CT. The following equation would apply:

$I_{in} = \text{ Rated input Amps } \times \left( \frac{I_o - 4}{16} \right)$

EXAMPLE: A 37000 5 is used with two turns and is monitoring a 2A load.

If $I_o = 16.8 \text{ mA}$ then $I_{in} = \frac{5}{2} \times \left( \frac{16.8 - 4}{16} \right) = 2 \text{ Amps}$