

## 4 - 20 mA LOOP POWERED CURRENT TRANSDUCER

### FEATURES:

- ◆ Highly accurate, true RMS measurement.
- ◆ Self powered from the 4 - 20 mA loop.
- ◆ Robust construction (potted box).
- ◆ Compact size and easy wiring.
- ◆ Ideal for Control and Energy



### APPLICATION:

The ETA1.420 transducer offers inexpensive yet accurate true RMS monitoring of AC current in one circuit.

This product is ideal as a precision AC load transducer for Control and Energy Management applications.

Combined with a standard 5A CT the loop powered ETA1.420 provides a convenient tool for accurate load monitoring in any electrical equipment.

### SPECIFICATIONS:

<i>Power:</i>	Standard 4-20 mA loop; voltage 8 - 35 VDC
<i>Current Input:</i>	Wire current input through CT up to calibrated Range. Unit may be wired off a secondary 5A CT for higher input ranges.
<i>Output:</i>	4-20 mA loop (sinking); max. impedance 750 ohm @ 24VDC (barrier strip terminal provided).
<i>Accuracy:</i>	TRMS, 0.3% FS for 0-5A & 0-10A ranges, 0.5% for other ranges.
<i>Enclosure:</i>	Potted plastic box L=3", W=1.1", H=0.4" + CT height, panel mount ready. Interfacing CT permanently attached (non universal version); Dielectric test (input/output) - 4 kVRMS

### PRODUCT DESCRIPTION:

The ETA1.420 is a microprocessor based precision current transducer that performs true RMS current measurements in one AC circuit wired through an interfacing CT mounted on the top of the enclosure.

The ETA1.420 may be ordered for various current ranges. The 0-5A and 0-10A current ranges feature a very high accuracy CT providing 0.3% accuracy (full scale). Other standard ranges include 30A, 50A and 100A. The ETA1.420 may be calibrated for other input ranges upon request. The 5A calibrated ETA1.420 can be applied to the secondary wire of a 5A CT thus extending the metering range as required.

The ETA1.420 is powered from the 4 - 20 mA current loop (it acts as a 'two wire loop device'). It will accept a wide range of loop excitation voltages, typically 24 VDC. The ETA1.420 unit is hermetically potted in a small plastic enclosure equipped with two mounting holes. A barrier strip terminal is provided for the output wiring.

The ETA1.420-U does not include a built in CT and is equipped with spade connectors allowing remote installation of various Elkor miniature CTs (MCTA and MSCT).

Input Range	Part Number	Accuracy (full scale)	Window Size	Maximum Wire Size
0-5A	ETA1.420-A-5	0.3%	6.9mm (0.272")	AWG #10
0-10A	ETA1.420-A-10			
0-30A	ETA1.420-B-30	0.5%	9.5mm (0.375")	AWG #8
0-50A	ETA1.420-B-50			
0-100A	ETA1.420-C-100		14.5mm (0.570")	AWG #2
Universal (MCTA or MSCT)	ETA1.420-U	See MCTA and MSCT specifications		