

The ETM1 is a cost effective, true RMS single phase power transducer that provides pulses proportional to energy consumption (Watt-hours) and two analog signals proportional to other power parameters.

## FEATURES

- ◆ Accurate, true RMS measurements.
- ◆ EMS compatible output signals:
  - slow pulses for DDC
  - standard 100 ms pulses for totalizers and counters.
  - two 5 V analog outputs
- ◆ Direct connection up to 240VAC.
- ◆ Standard 5A CT or small MCT current sensor that may eliminate the need for CT.
- ◆ Reversed Wiring Immunity.
- ◆ Fast and Easy Installation (DIN Rail).



## PRODUCT DESCRIPTION

ELKOR ETM1 true RMS single phase transducer is a micro-processor based metering product designed specifically for residential or single phase commercial power monitoring. The ETM1 provides a cost effective and practical method for remote power monitoring in single phase circuits. The transducer can interface directly with any generic Energy Management System, PLCs or pulse counter-totalizers.

The ETM1 is powered from the metered line. The unit accepts any standard 5A CT or Miniature Current Transformer (MCT) as its current input. In some installations the MCT sensor can be wired off the existing CT contributing to installation cost savings.

The ETM1 provides optically isolated pulses for Watt-hour and two 0-5 VDC analog outputs. Watt-hour pulses are slow (50% duty cycle) and easy to monitor by any control system via a standard DI point. The unit may be programmed to provide short 100 ms pulses for totalizer-counters or data loggers. The first analog output always represents instantaneous real power (Watts) while the second may be ordered to represent Volt-Amperes (VA), Voltage, Current or Power Factor. The transducer is insensitive to input polarity. The ETM1 is housed in a plastic enclosure c/w an universal DIN rail adapter. It features LED indication for pulsed output and excitation.

## SPECIFICATIONS

### INPUT:

Voltage (single phase) :

115 to 127 VAC or 220 to 240 VAC

Note: Voltage fluctuations +/-20% will not deteriorate metering accuracy.

### Current:

5A from a standard CT (ETM1-CT) or low voltage signal from ElkorMCT (ETM1-MCT)

Max. Ratings: Voltage - 140VAC / 250 VAC  
Current - 10 A (CT version)

### OUTPUT:

Watt-hour Pulse: MOSFET relay, change of state (50% duty cycle max. frequency 0.1 Hz) or 100 ms pulses (max. 350 V/100 mA)

Watts: 0-5 VDC (V1) output

VA, PF, V or Iabc available as 0-5 VDC on second output (V2).

### POWER SUPPLY REQUIREMENTS:

0.75 VA - excitation provided by 'on board' power supply;

### ISOLATION:

2500 VAC 1sec. input to output.

### ACCURACY:

Better than 1% ,TRMS of full rated span (@ PF=1 to 0.7; t=25C).

### ENVIRONMENT:

Indoor; 0-50 C, 10-90%RH non-condensing.

### WARRANTY:

Full two years manufacturer's warranty.