

WIRELESS ENERGY MONITOR

The ECM Power Meter provides a low cost and convenient Voltage, Current, Power and Energy monitoring to single-phase applications via wireless communications.

FEATURES:

- ◆ 120-240VAC line power
- ◆ Two CT inputs
- ◆ Easy installation; pluggable CT and voltage connections
- ◆ Xbee Pro (Zigbee) communications
- ◆ On-board diagnostic LED
- ◆ May be ordered for use with 333mV or mA output CTs.
- ◆ High system accuracy (1% typical, 0.2% with revenue CTs)
- ◆ Small size
- ◆ Low Cost



SPECIFICATIONS:	
INPUTS	
Power Supply	90-250Vac, (direct connection)
Supported Wiring Types	120 Single Phase 120/240 Split Phase 240 Single phase
Frequency	50-60 Hz nominal
Voltage Input	90-250Vac, (direct connection)
Current Input	<i>mA Model</i> <i>mV Model</i>
Input Rating	200mA via mA CTs 333mV output CTs (ie: Elkor "Safe" mA (400mV max) output CTs)
Burden/Input Impedance	1.5Ω typ 800kΩ min, 1.2MΩ typical
Connections	Screwless Terminal Blocks AWG 16-24
Current Overload	20% continuous maintaining full accuracy. 100% momentary current overload sustained.
OUTPUTS	
Wireless	Xbee Pro XB24C module (Zigbee)
LED	Tri-Color LED (Associate, Error , TX/RX)
MEASURED PARAMETERS (Modbus)	
Voltage [V] (A, B) Current [A] (A, B) Active Power [W] (A, B, Total) – Bi-directional Apparent Power [VA] (A, B, Total) Reactive Power [VAR] (A, B, Total) — Bi-directional Power Factor (A, B, System) — Bi-directional Frequency [Hz] Import/Export/Net Real Energy [Wh] (A, B, Total)	
All parameters are floating point (engineering unit scaled)	

MECHANICAL	
Dimensions (ECM)	3.1" x 1.6" x 1.1" W x L x H (W=3.8" including flanges)
Dimensions (ECM CT)	2" x 2.2" x 0.6" (ww=0.75"x0.75")
Mass (ECM)	41g (1.5oz)
Mass (ECM CT)	96g (3.4oz)
Mounting	Flanged Box 2-point screw wall mount
ACCURACY (including ECM 200:333mV CTs)	
Current (A)	0.5% typ 1.0% max
Voltage (V)	0.1% typ 0.2% max
Real Power (W)	0.5% typ 1.0% max
Apparent Power (VA)	0.5% typ 1.0% max
Reactive Power (VAR)	0.5% typ 1.0% max
Energy	0.5% typ 1.0% max
Power Factor	1.0% max
Frequency	0.01% max
Data Update Frequency	2Hz (every 500ms)
ORDERING INFORMATION	
ECM-[1]-[2]-[3]	
Where:	
[1] - Communications type (Z=Zigbee Pro)	
[2] - CT rating/type (ie: xxxA specifies full scale amps to 333mV mA for 200mA input)	
[3] - Optional Information	
Example: ECM-Z-200A	
specifies ECM with Zigbee Communication complete with 200A:333mV "ECM style" CTs	

