

SENTRY KW2000 and KWN2000 Series

AutoPhase kW/kWh Transducers

The KW2000 Power Transducers provide an analog output signal proportional to power demand (kW), plus a pulsed output for totalizing energy consumption (kWh). The KWN2000 Series Transducers connect directly to a Modbus network. The KWN2000 units provide values for kW/kWh plus several other power parameters.



FEATURES

Accurate

Advanced microprocessor running at 5 MIPS provides high-speed sampling, true RMS calculations and meter grade digital accuracy (0.5% full scale).

Fast Installation

Patented AutoPhase Technology corrects common wiring errors such as CT reversal and phase mismatch, and can save hours of field labor.

Input Flexibility

Accepts ProteCT 0.333V safe CTs, eliminating the need for shorting blocks. Also accepts traditional 5A CTs. No separate potential transformers (voltage transformers) are required for monitoring up to 600VAC.

Network Integration

The network versions are designed for direct connection to a Modbus network bus.

APPLICATIONS

- Energy management
- Facility and equipment power monitoring
- Sub-metering
- Performance contracting



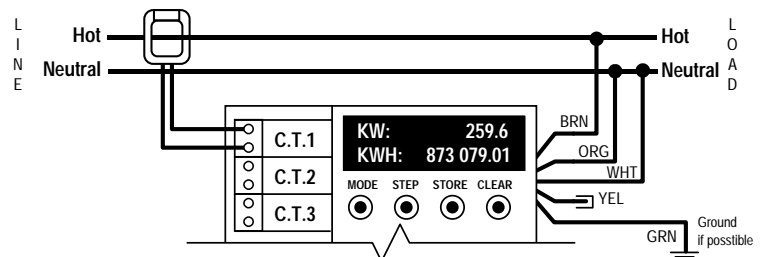
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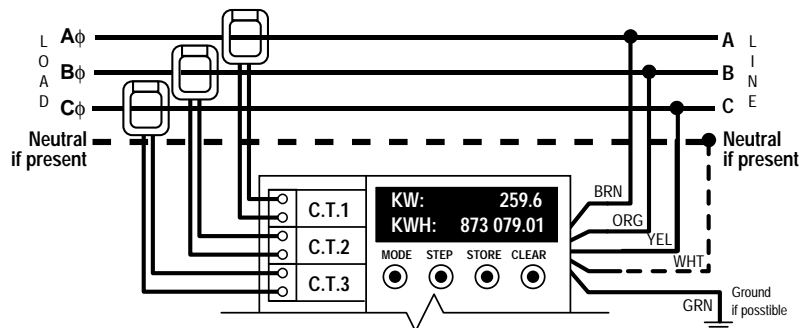
CONNECTIONS

1φ Single Phase



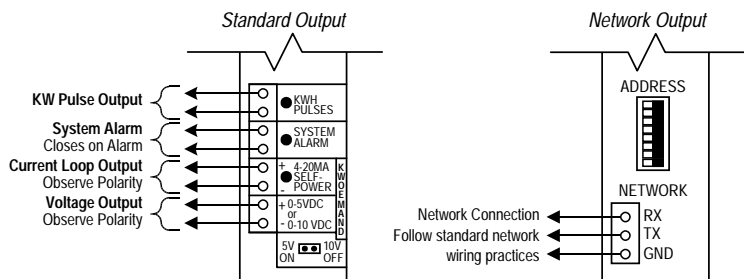
See Output Wiring, below

3φ Three Phase



See Output Wiring, below

Output Wiring



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AutoPhase kW/kWh Transducers

ORDERING INFORMATION

MODEL	HOUSING	CURRENT INPUT	PROGRAMMING	DISPLAY
Standard Output Models				
KW2013V	Module	ProteCT	Keypad	LCD
KW2113V	NEMA 1	ProteCT	Keypad	LCD
KW2213V	NEMA 1	ProteCT	Keypad on Module	LCD on Hinged Cover
KW2013A	Module	5A CT	Keypad	LCD
KW2113A	NEMA 1	5A CT	Keypad	LCD
KW2213A	NEMA 1	5A CT	Keypad on Module	LCD on Hinged Cover
Network Models*				
KWN2013V-xx	Module	ProteCT	Keypad	LCD
KWN2113V-xx	NEMA 1	ProteCT	Keypad	LCD
KWN2213V-xx	NEMA 1	ProteCT	Keypad on Module	LCD on Hinged Cover
KWN2013A-xx	Module	5A CT	Keypad	LCD
KWN2113A-xx	NEMA 1	5A CT	Keypad	LCD
KWN2213A-xx	NEMA 1	5A CT	Keypad on Module	LCD on Hinged Cover

*Replace "xx" with "MOD" as shown:

xx **Network**
 MOD Modbus network

Note: Please indicate CT values with order.

SPECIFICATIONS

- Power Requirement . . . None, powered from monitored line.
- Accuracy 0.5% FS, True RMS power
- Voltage Range 120–600V (Std.), 208-600V (Network), auto-ranging. Up to 35KV with optional potential transformers. Contact us for 120V Network version.
- Amperage Range 5–500 Amps with ProteCT 0.333V CTs
50–4000 Amps with 5A output CTs
- Frequency Range 50–60 Hz
- Isolation Voltage 3,700 VAC
- Built-in Fuse Rating . . . 600 VAC, 0.5A (no external fuses required)
- Environmental 0/122°F (–18/50°C), 0–95% RH, non-condensing
- Dimensions Module: 9" H x 6.5 W x 2.6" D (23 x 16.5 x 6.5 cm)
NEMA1: 10" H x 10" W x 4" D (26 x 25 x 10 cm)
- Connections Voltage: 12" leads, #18 AWG
- Current Inputs
and All Outputs . . . Captive screw terminals accept 14-22 AWG wire
- LCD Display Two lines, 16 characters

OUTPUTS, STANDARD MODELS

- Analog Outputs Both available at all times (standard models)
 - kW 0–5 VDC or 0–10 VDC, user selectable, self-powered, opto-isolated, 10 kΩ minimum load impedance
 - kW 4–20mA, self-powered 24VDC loop, opto-isolated, 500Ω maximum load
- Discrete Outputs Both available at all times (standard models)
 - System Alarm Solid state N.O. contact, 100mA@30V AC/DC, 75, 80, 85, 95% under voltage set points
 - kWh Solid state contact, 100mA@30V AC/DC
Ranges: 0.01,0.1,1.0,10.0 kWh per pulse
- Communication RS232 serial data stream (standard models), consult factory for details

OUTPUTS, NETWORK MODELS

	φA	φB	φC	TOTAL
Voltage	•	•	•	
Amperage	•	•	•	
KW	•	•	•	•
KWH				•
KVA	•	•	•	•
KVAH				•
Power Factor	•	•	•	•
Frequency	•	•	•	
CT Value				•



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