

# APN & APO SERIES Power Monitors

APN & APO Series Power Transducers feature the patented Autophase™ technology, which helps to correct common wiring errors ranging from CT reversal to phase mismatch.

Analog 4–20 mA or 0–5/10VDC (proportional to kW) and pulse kWh outputs are available as standard options; RS232 outputs are optional in either configuration.



Power Monitoring Sensors

## Applications

### Cost Allocation

- Measure and display power, both demand (KW) and consumption (KWH).

### Improve Plant Performance

- Measure and correct low power factor.
- Measure and stop erratic machine operation and overheats; extending equipment life.

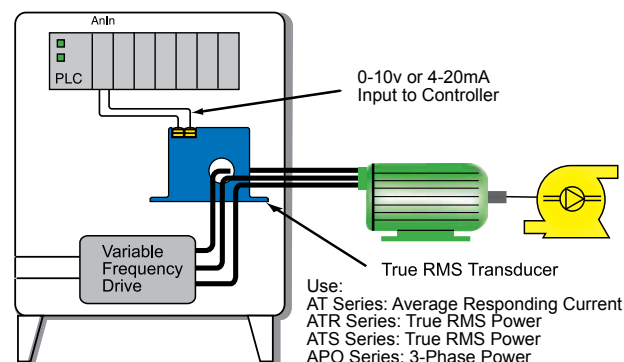
### Machine Control

- KW monitoring provides a good picture of machine tool operation.

### Generator Performance

- A cost-effective way to monitor power output from backup generators, ensuring “information age” standard.

### Pump Load Monitoring



## Features

### Meter Grade Digital Accuracy

- Provides for reliable measurement.

### Patented AutoPhase™ Technology

- Senses and automatically corrects for errors in CT orientation or mismatches between voltage inputs and CTs, identifying the reversed CTs and mismatched phases.

### Compatible with a Wide Variety of CTs

- APO/APN Series KWH meters accept inputs from traditional existing 5A CTs or from ProteCT™ 0.333V output CTs, which improve safety and eliminate the need for costly shunting blocks.

### Available in Quick-mount NEMA-rated Enclosures

- Installation is simple and efficient.

### Networked Options

- RS232 serial communications to monitor 24 individual data points.

### Agency Approved

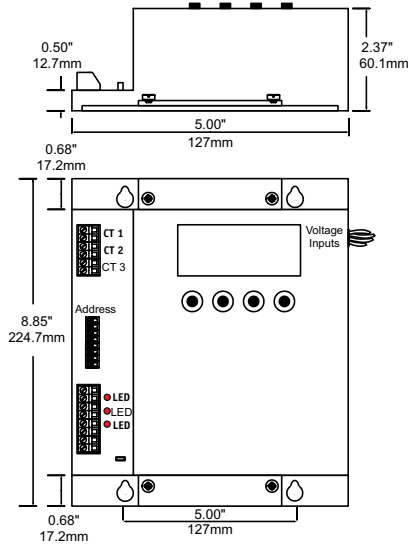
- UL and CUL listed.



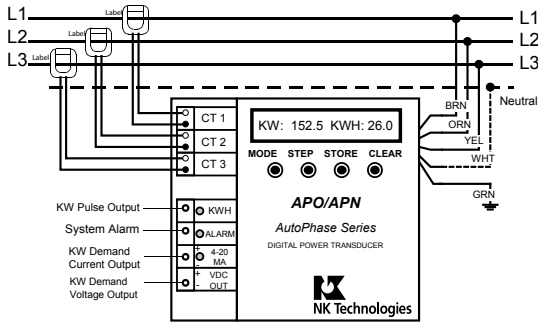
Free program expedites evaluation process. See page 1 for details.

**Dimensions**

**Case**



**Connections**



**Specifications**



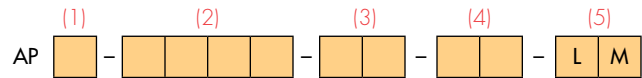
Power Supply	None—Self-powered
Accuracy	0.5% FS, True RMS Power $\pm$ 0.5Hz
Voltage Range	120–600VAC, Auto Range Select, Up to 12KV with optional Potential Transformers
Amperage Range	<ul style="list-style-type: none"> <li>• 5–1 500A with ProteCT™ CTs</li> <li>• 50–3000A with Current Output (5A) CTs</li> </ul>
Isolation Voltage	3700VAC
Built-in Fuse Rating	600VAC, 0.5A (no external fuses required)
LCD Display	Two line, 16 character

<b>Connections</b>	<ul style="list-style-type: none"> <li>• Voltage 12" leads, #18 AWG, pre-tinned</li> <li>• Current Input: Captive screw terminal for 14–22 AWG wire</li> <li>• Outputs: Captive screw terminal for 14–22 AWG wire</li> </ul>
<b>Digital Output</b>	RS232 ASCII Data String (optoinal)
<b>Analog Outputs*</b>	<ul style="list-style-type: none"> <li>• KW: Choice of two; 4–20 mA and 0–5 or 0–10VDC</li> <li>• Alarm Contact: N.O. solid-state contact, 0.1A @ 30VAC/VDC (from 75–95% under voltage)</li> <li>• KWH: Solid-state contact, 0.1A @ 30VAC/VDC; Range 0.01, 0.1, 1.0 or 10KWH per pulse</li> </ul>
<b>Listings</b>	UL Listed (Measuring and Testing Equipment)

**Ordering Information**

Sample Model Number: APN-R32-5A-MX-LM

AC power transducer with RS232 output, module for mounting inside a panel or switchgear with an LCD display.



(1) AP Type

O	Non-networkable Power Transducer
N	Networkable Power Transducer

(2) Output Type

KWKH	KW (4–20 mA & 0–10VDC) & KWH Pulse*
R232	RS232*

\* APN type only

(3) CT Input

5A	5 Amp CTs (Ratio:5)
PC	ProtectCT low voltage output CTs

(4) Case Style

MX	Module (Aluminum)
MN	Module in NEMA 1 enclosure

(5) Display

LM	LCD on Module
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