APT-TH SERIES

Power Transducers

The APT-TH Series Power Transducers monitor watt consumption of three phase loads. They provide an analog signal proportional to the active power consumed by the monitored load. The three current carrying conductors pass through the three windows of the top section and the matching voltage input at the terminals. The APT-TH is a one-piece solution for measuring power; no external current transformers are needed and installation is easy. The design of the APT-TH ensures that the monitor is always correctly orientated. If connected improperly by mismatching the current and voltage inputs, or placing a conductor through the sensing window back to front rather than front to back, the LED will change color from green to amber. The LED will also turn amber if the phase A conductor is placed through the phase B sensing window, or if power factor is lower than 0.50.



Power Transducer Applications

Pump Monitoring

- Monitor pumps to detect open intake or outflow lines, cavitation or failing bearings.

Grinding and Milling

- Measure wattage/horsepower to optimize feed rate.
- Detect broken or missing tools or drill bits.
- Detect when the tool contacts the material.

Equipment Monitoring

- Constant output proportional to wattage consumed can be compared with utility bills, providing a cost per hour or cost per operation of a machine or process.

Power Transducer Features

One-piece Solution

- No external current transformers.
- No chance for loose CT secondary provides added safety.

Easy Installation

- Snaps onto DIN rail or can be panel mounted using screws.

Finger Safe Terminals for Safety

LED Indicator

- LED on base shows correct phase relationship match.
- Green for normal operation.
- Amber/Orange for incorrect installation.

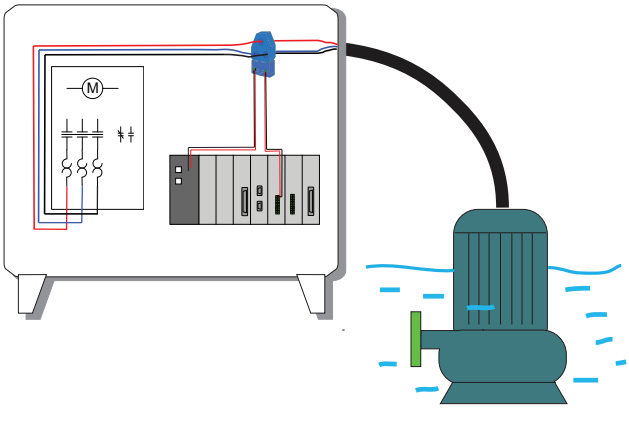
Three Ample Sensing Windows

- Wire carrying 200 A fits easily.

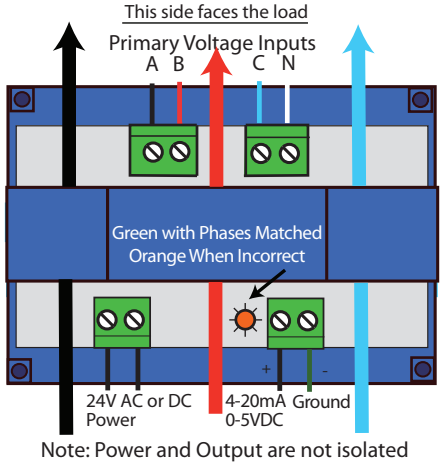
UL/cUL and CE Approved

- Accepted worldwide.

Submersible Pump Application



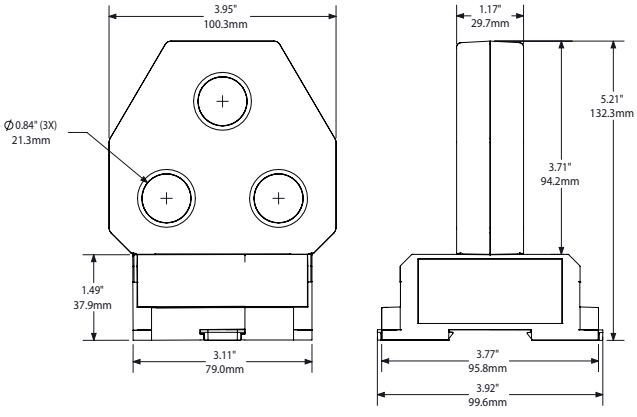
Power Transducer Connections

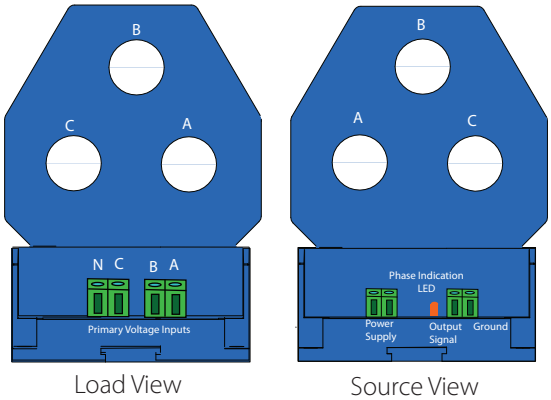


OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.

NK Technologies

Power Transducer Dimensions





Load View Source View

Model Information

	APT1 (208 V)	APT2 (240 V)	APT4 (480 V)	APT6 (600 V)
0.5 kW	*	*	NA	NA
0.75 kW	*	*	NA	NA
1.00 kW	*	*	*	NA
2.00 kW	*	*	*	*
5.00 kW	*	*	*	*
7.50 kW	*	*	*	*
10.0 kW	*	*	*	*
15.0 kW	*	*	*	*
20.0 kW	*	*	*	*
40.0 kW	*	*	*	*
50.0 kW	*	*	*	*
60.0 kW	*	*	*	*
75.0 kW	*	*	*	*
100 kW	NA	NA	*	*
150 kW	NA	NA	*	*
200 kW	NA	NA	NA	*

Power Transducer Specifications

Power Supply	24 VAC or VDC
Power Consumption	<6 VA
Primary Voltage Input	208, 240, 480, 600 VAC
Output Signal	4–20 mA 0–5 VDC
Output Loading	4-20 mA: <400 Ω 0-5 VDC: >33 KΩ
Response Time	500 ms (10–90% step change)
Accuracy	+/-1% FS
Frequency Range	40-65 Hz
Case	UL94 V-0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings	UL, cUL and CE

Ordering Information

Sample Model Number: APT1-005-24U-10.0-TH, power transducer, 208 V, three-phase monitored voltage, output 0–5 VDC, 24 VAC/VDC powered, 10.0 kW input range, three-hole, solid-core case.

	(1)		(2)			(3)			(4)				(5)	
APT		-				-	2	4	U	-				-	T	H

(1) Monitored Voltage

1	208 V three-phase
2	240 V three-phase
4	480 V three-phase
6	600 V three-phase

(2) Output Signal

420	4–20 mA
005	0–5 VDC

(3) Power Supply

24U	24 VAC/VDC

(4) Input Range (kW)*

0.50	5.00	20.0	75.0
0.75	7.50	40.0	100
1.00	10.0	50.0	150
2.00	15.0	60.0	200

(5) Case

TH	Three-hole, solid-core

Note: Not all ranges are available for each primary voltage input range. See Model Information chart.