

APT-TH SERIES

Three-hole Power Transducer

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.
- Orange for incorrect installation.

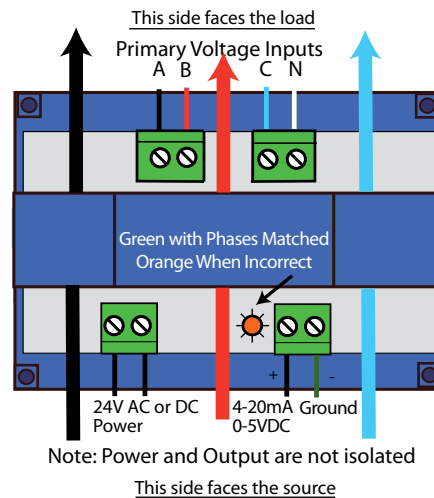
Three Ample Sensing Windows

- Wire carrying 200 A fits easily.

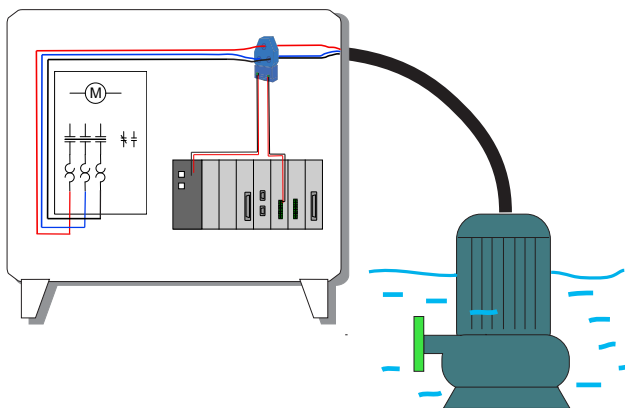
UL/cUL and CE Approved

- Accepted worldwide.

Power Transducer Connections



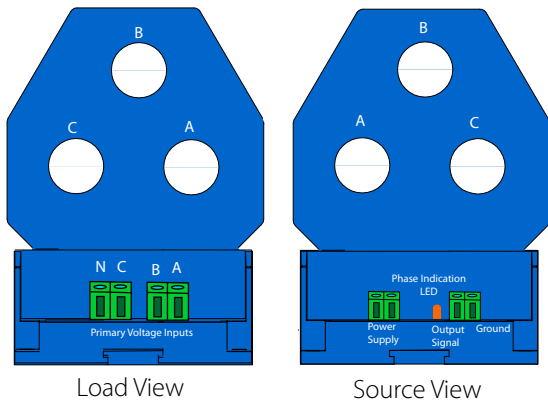
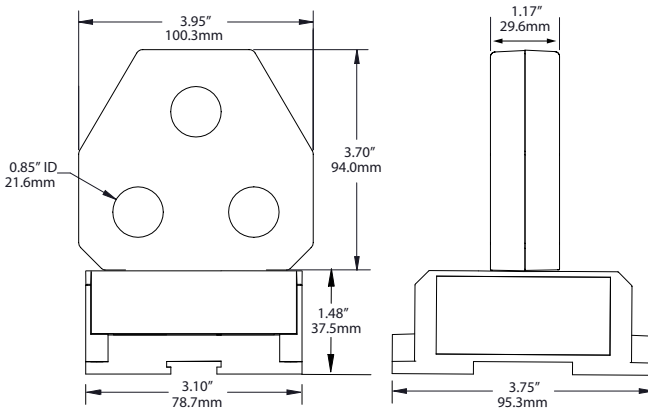
Submersible Pump Application



Power Sensing Products



Power Transducer Dimensions



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 | * |

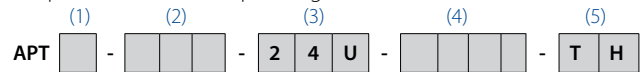
Power Transducer Specifications



| | |
|------------------------------|---|
| Power Supply | 24 VAC or DC |
| Power Consumption | <4 VA |
| Primary Voltage Input | 208, 240, 480, 600 VAC |
| Output | 4–20 mA 0–5 VDC |
| Response Time | 500 ms (10–90% step change) |
| Accuracy | +/-1% FS |
| Frequency Range | 40–100 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/DC powered, 10.0 kW input range, three-hole, solid-core case.



(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/DC |
|-----|-----------|

(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.

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