

# ATP/ATPR-FL SERIES

## AC Current Transducers

ATP/ATPR-FL Series High-AC-Current Transducers are large-format solid-core transducers designed for high current applications from 200 A to 2000 A. Powered by 120 VAC or 24 VAC/DC, the ATP/ATPR-FL Series takes advantage of available power supplies and eliminates the need for costly control power transformers. Options include average responding and True RMS versions, 0–5/10 VDC or 4–20 mA analog outputs and switch-selectable input ranges.

### AC Current Transducer Applications

#### Commercial and Industrial MCC's

- Fits conveniently in motor control centers, senses current on industrial motors and provides analog inputs back to PLC or controller.

#### VFD or SCR Controlled Loads, Electronic Ballasts

- Helpful in monitoring VFD-controlled motors to provide operational status. Provides accurate measurement of ballast input power and phase angle fired SCRs.

#### Large Pumping Applications

- Ideal for proof-of-flow in water/wastewater, boiler and other industrial pumping applications 150 HP and over. 120 VAC/DC or 24 VAC/DC supply options allow for powering off of readily available supply, eliminating need for CPTs.

#### Power Distribution Centers (PDCs)

- Monitors current output on commercial generation equipment and serves as a current input for use in power consumption calculations.



### AC Current Transducer Features

#### Large Aperture

- Accommodates large conductors or wire bundles.

#### Select the Right Output

- True RMS technology is accurate on distorted waveforms like those associated with VFD or SCR outputs.
- Average Responding for use with linear, sinusoidal waveforms.

#### Jumper-selectable Ranges

- Reduces inventory.
- Eliminates zero and span pots.

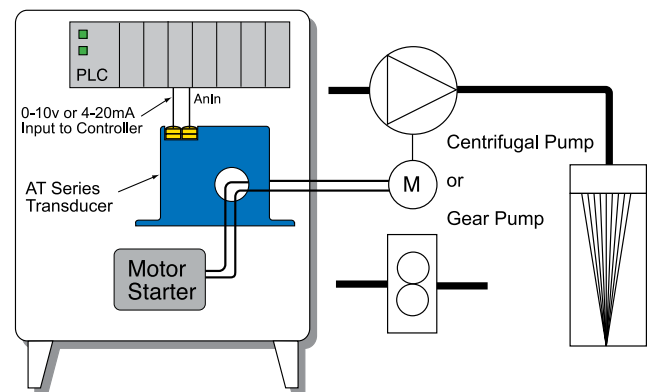
#### Isolation

- Output is magnetically isolated from the input for safety.
- Eliminates insertion loss (voltage drop).

#### Designed for UL/cUL Approval, CE Approved

- Accepted worldwide.

Centrifugal Pump Monitoring



OEMs

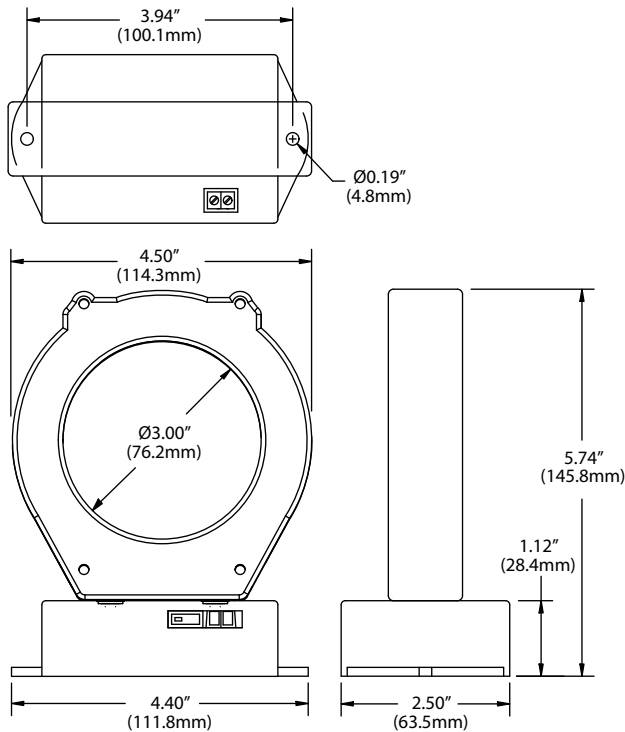
Test & Evaluation Units for OEMs

Free program expedites evaluation process. See page 3 for details.

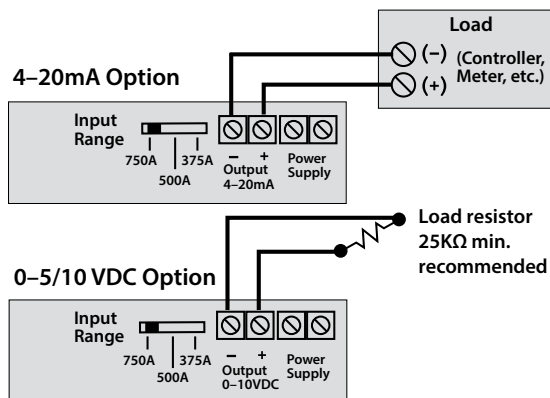
For additional Application Examples, go to [www.nktechnologies.com/applications](http://www.nktechnologies.com/applications)

## AC Current Transducer Dimensions

FL Case



## AC Current Transducer Connections



Notes:

Terminals are deadfront captive screw terminals.  
Use 12–22 AWG solid or stranded.

## AC Current Transducer Specifications



<b>Power Supply</b>	• 120 VAC/DC (108–132 V) • 24 VAC/DC (22–26 V)
<b>Power Consumption</b>	<2 VA
<b>Output Signal</b>	• -005 Model: 0–5 VDC • -010 Model: 0–10 VDC • -420 Model: 4–20 mA
<b>Output Limit</b>	• -005 Model: 112% (5.6 V) • -010 Model: 112% (11.2 V) • -420 Model: 112% (22.4 mA)
<b>Output Impedance</b>	25 KΩ min.: VDC models 500 Ω max.: 4–20 mA models
<b>Accuracy</b>	1.0% FS
<b>Response Time</b>	• ATP: 100 ms (10–90% step change) • ATPR: 600 ms (10–90% step change)
<b>Frequency Range</b>	• ATP: 40–100 Hz, sinusoidal • ATPR: 10–400 Hz
<b>Isolation Voltage</b>	UL listed to 600 VAC, tested to 5 KV
<b>Input Range (switch-selectable)</b>	• ATP3/ATPR3: 0–375 A/500 A/750 A • ATP4/ATPR4: 0–1000 A/1333 A/2000 A
<b>Case</b>	UL94 V-0 Flammability Rated
<b>Environmental</b>	–4 to 122°F (–20 to 50°C) 0–95% RH, non-condensing
<b>Listings</b>	Designed for UL/cUL and CE approval

## AC Current Transducer Ordering Information

Sample Model Number: ATPR-3-420-120-FL

True RMS AC current transducer, 120 VAC/DC, powered with a 4–20 mA output, 375/500/750 A ranges in a solid-core case.

ATP (1) – (2) – (3) – (4) – (5) F L

(1) Measurement

R	True RMS
	Average Responding (blank)

(2) Full Scale Range

3	375, 500, 750 A
4	1000, 1333, 2000 A

(3) Output Signal

005	0–5 VDC
010	0–10 VDC
420	4–20 mA

(4) Power Supply

24U	24 VAC/DC
120	120 VAC/DC

(5) Case Style

FL	Solid-core
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