

# ATPR VOLTAGE OUTPUT SERIES

## AC Current Transducers

ATPR AC Current Transducers combine a current transformer with a True RMS signal conditioner in a single package. These current transducers produce a 0–5 or 0–10 VDC True RMS output on distorted waveforms found in the output of variable frequency drives, phase angle fired heating controls and on linear loads in “noisy” power environments. The ATPR Series AC Current Transducers are available in split-core case only.



### AC Current Transducer Applications

#### VFD Controlled Loads

- Monitor the output of variable frequency driven loads, even when the unit is in bypass mode.

#### SCR Controlled Loads

- Accurate measurement of phase angle fired heating controls.
- Current measurement produces a quicker response to element failure than temperature controls.

#### Switching Power Supplies and Electronic Ballasts

- True RMS sensing is the most accurate way to measure power supply and ballast input power.

### AC Current Transducer Features

#### True RMS Sensing

- Sensor output is proportional to the current flowing in the circuit, even with high distortion or harmonic loads.
- Compatible with most automation systems.

#### External Powered

- Provides the highest degree of accuracy and response.

#### Range-selectable

- One sensor covers a wide variety of loads.
- Field-selectable ranges keep spare part inventory at a minimum and allow for changes in load conditions.

#### Split-core Case

- Simple installation, release the latch and snap over the conductor.

#### DC Voltage Output

- Perfect for data acquisition systems, panel meters or controllers with only voltage inputs available.

#### Built-in Mounting Feet

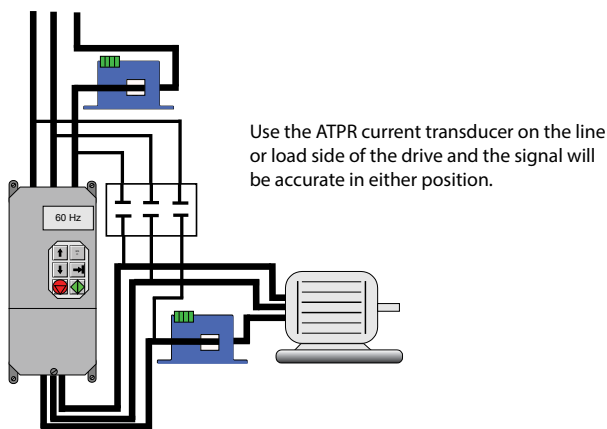
- Simple, two-screw panel mounting or attach with DIN rail brackets (included).\*

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

- Accepted worldwide.

\*For information on the DIN rail accessories kit, see page 140.

Monitoring a Variable Frequency Drive

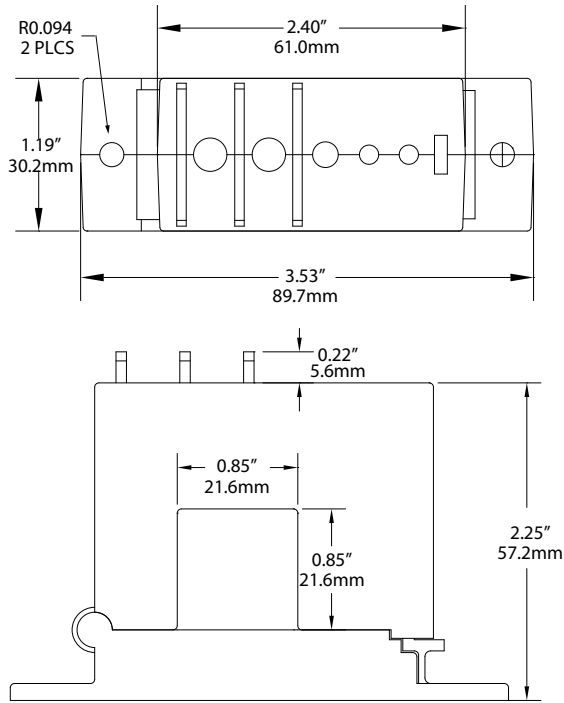


- For additional Application Examples, go to [www.nktechnologies.com/applications](http://www.nktechnologies.com/applications)

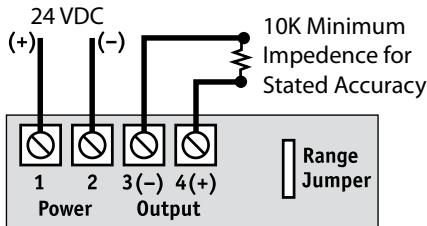
**OEMs** Test & Evaluation Units for OEMs  
Free program expedites evaluation process. See page 3 for details.

AC Current Transducer Dimensions

SP Case



AC Current Transducer Connections



AC Current Transducer Specifications

<b>Power Supply</b>	24 VDC (20–28 VDC)
<b>Power Consumption</b>	<2 VA
<b>Output Signal</b>	• 0–5 VDC, proportional to True RMS current • 0–10 VDC, proportional to True RMS current
<b>Output Impedance</b>	10 KΩ min.
<b>Response Time</b>	600 ms
<b>Frequency Range</b>	10–400 Hz
<b>Isolation Voltage</b>	UL listed to 1270 VAC, tested to 5 KV
<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: ATPR1-010-24D-SP  
True RMS AC current transducer, 10/20/50 A FS input ranges, 0–10 VDC output, 24 VDC power supply, split-core case. (DIN rail adapters are included)



(1) Full Scale Range

0	2, 5 A
1	10, 20, 50 A
2	100, 150, 200 A

(2) Output Type

005	0–5 VDC, True RMS
010	0–10 VDC, True RMS

(3) Power Supply

24D	24 VDC
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(4) Case Style

SP	Split-core
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