Rev. 1.14

ATPR "E-OUT" SERIES
AC Current Transducers

ATPR RMS AC Current Transducers combine a current transformer with a true RMS signal conditioner in a single package. ATPR Series AC Current Transducers produce a 0–5 or 0–10 VDC 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 housing only.

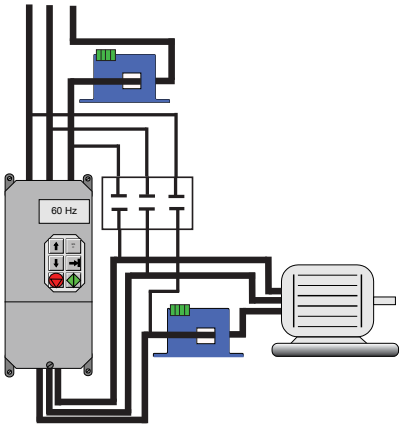
AC Current Transducer Applications

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.

Monitoring a Variable Frequency Drive



Use the ATPR current transducer on the line or load side of the drive and the signal will be accurate in either position.

Test & Evaluation Units For OEMs

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

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 mount or attach with optional DIN rail brackets.*

Designed for UL and CUL; CE Approval
- Accepted worldwide.

*See DIN Rail accessory page for panel mounting kit.

For additional Application Examples, see page 102 and www.nktechnologies.com

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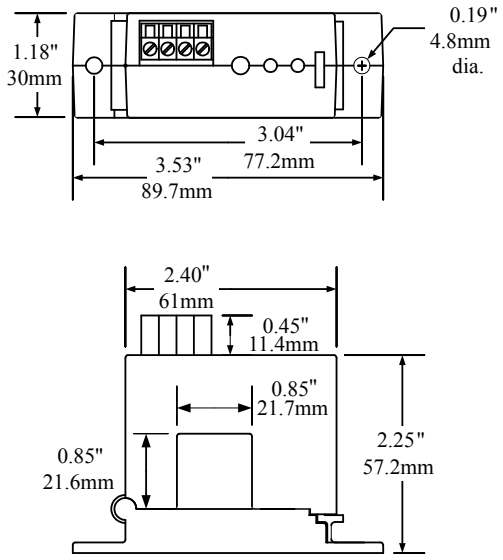
MADE IN USA

AC Current Transducer Dimensions

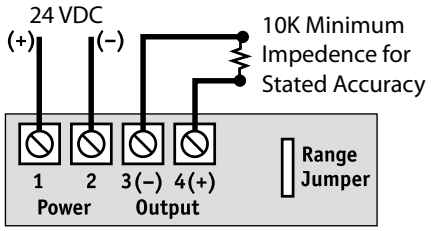
SP Case



AC Current Transducer Specifications

Power Supply	24 VDC nominal (20–28 VDC)
Output	0–5 VDC, Proportional to RMS Current
	0–10 VDC, Proportional to RMS Current
Response Time	600 ms
Output Range	• 0–2 or 0–5 A • 0–10, 20 or 50 A • 0–100, 150 or 200 A
Output Ripple	1% Maximum
Isolation Voltage	UL listed to 1270 VAC, tested to 5000 VAC
Frequency Range	10–400 Hz
Sensing Aperture	0.85" (21.6 mm) sq.
Case	UL94 V0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings	Designed to meet UL 508 Industrial Control Equipment (USA & Canada)

AC Current Transducer Connections



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.

	(1)		(2)			(3)			(4)	
ATPR		–				2	4	D	S	P

(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 Nominal (20–28 VDC)

(4) Case Style

SP	Split-core