Specifications

Power Supply	120 VAC/VDC (108-132 V); 24 VAC/VDC (22-26 V), 2 VA maximum
Output Signal	4-20 mA, 0-5 VDC, 0-10 VDC
Output Limit	112% of standard output range maximum value
Frequency Range	ATP: 40-100 Hz (sinusoidal) ATPR: 10-400 Hz
Response Time	ATP: 100 ms (to 90% step change) ATPR: 600 ms (to 90% step change)
Accuracy	1.0% FS
Output Loading	4-20 mA models: 500 ohm maximum 0-5/10 VDC models: 25 KΩ minimum for stated accuracy
Isolation Voltage	Tested to 5 KV
Case	UL94 V-0 Flammability rated thermoplastic
Sensing Aperture	3.0" (76.2 mm) diameter
Environmental	-20 to 50°C, (-4 to 122°F) 0-95% RH, Non-condensing
Listing	Designed to meet UL/cUL and CE approval

Model Number Key

ATP R 3 - 420 - 120 - FL

Case Style:
FL - Solid-Core

Power Supply:
24U - 24 VAC/VDC
120 - 120 VAC/VDC

Output:
005 - 0-5 VDC
010 - 0-10 VDC
420 - 4-20 mA

Range (switch selectable):
3 - 0 - 375, 500, 750 A
4 - 0 - 1000, 1333, 2000 A

Measurement:
R - True RMS
(Blank) - Average responding

Sensor Type:
ATP - Powered AC current transducer

Power Supply

This product is available to be used with either 120 VAC or 24 VDC or AC. Two wires supply the power to run the transducer, and two wires are used to provide the output signal to the load (display, controller, PLC, etc.). The maximum power consumption is 2 VA.

Input Maximums

	----------MAXIMUM AMPS----------		
MODEL	1 SEC	6 SEC	CONTINUOUS
ATP3	3,750 A	1,500 A	750 A
ATPR3	3,750 A	1,500 A	750 A
ATP4	10,000 A	4,000 A	2,000 A
ATPR4	10,000 A	4,000 A	2,000 A

Know Your Power





Other NK Technologies Products Include:
AC & DC Current Transducers
AC & DC Current Operated Switches
1ϕ & 3ϕ Power Transducers
Current & Potential Transformers (CTs & PTs)

NK Technologies

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INSTRUCTIONS



ATP & ATPR 3 & 4 SERIES

Powered AC Current Transducers

0-5/10 VDC, 4-20 mA Output
True RMS or Average Responding

Quick "How To" Guide

1. Run the wire you are monitoring through aperture.
2. Mount the sensor to a surface if needed.
3. Connect output wiring.
   A. Use 24-12 AWG copper conductors rated 75°C minimum and tighten terminals to 3.5 in-lbs torque.
   B. Make sure output load does not exceed product specifications.
   C. Connect proper power supply and load in series.
4. Select Range.
   A. Chose correct range by positioning the Range switch.

292000013 Rev 3

Description

ATP and ATPR Series transducers combine a current transformer and a signal conditioner into a single package. This provides higher accuracy, lower wiring costs, easier installation and saves valuable panel space. ATP/R Series products are available in solid core with 0-5 VDC, 0-10 VDC and 4-20 mA outputs.

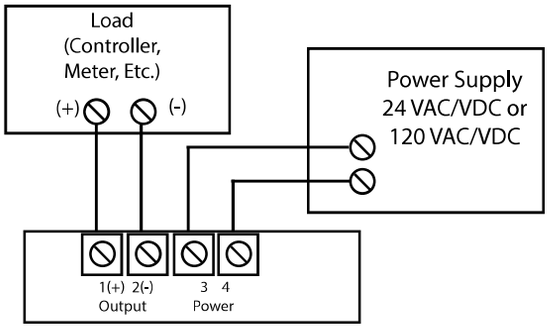
ATPR Series products feature a True RMS output designed for applications on distorted current waveforms such as VFD outputs.

Output Wiring

Connect control or monitoring wires to the sensor. Use 24-12 AWG copper wire and tighten terminals to 3.5 inch-pounds torque. Be sure the output load does not exceed 500 Ohms for product with the 4-20 mA output, and should be at least 25 KΩ for voltage output models.

Connection Notes:

- Captive screw terminals
- 24-12 AWG solid or stranded
- Observe Polarity of Output Connections
- See label for ranges selector positions



Installation

Run wire to be monitored through the sensing aperture.

ATP and ATPR Series transducers are designed for use in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures.

Mount ATP/ATPR transducer using the screw holes in mounting base, taking care maintain at least one-inch clearance in all directions between the sensor and other magnetic devices for proper operation. *Note: The transducer is not directionally sensitive, so the transducer label side can face either the source or the load, and the transducer can be mounted in any position.*

Range Select

ATP and ATPR Series transducers feature field selectable ranges. The ranges are factory calibrated, eliminating time consuming and inaccurate field setting of zero or span.

1. Determine the normal operating amperage of your monitored circuit.
2. Select the range that is equal to or slightly higher than the normal operating amperage.
3. Move the three position range selector switch to the appropriate position.

Trouble Shooting

1. Sensor has low or no output

A. Power supply is not properly sized *Check power supply voltage and current rating.*

B. Polarity is not properly matched. *Check and correct wiring polarity.*

C. Monitored load is not AC or is not on. *Check that the monitored load is AC and that it is actually on.*

2. Output Signal Too Low

A. Switch-selectable Input Range may be set too high for current being monitored. *Move switch to the correct range.*

B. Confirm load current is sinusoidal. *If not, an ATPR transducer designed for use with distorted waveforms should be used.*

C. Output load (monitored current) is below minimum required. *Loop the monitored wire several times through the aperture until the "sensed" current rises above minimum. Sensed Amps = (Actual Amps) x (Number of Loops). Count loops on the inside of the aperture.*

3. Output Signal is always pegged at 20 mA

A. Range may be too low for current being monitored. *Select different ATP/ATPR model with higher range.*

292000013 Rev 3