Specifications

Power Supply	24 VDC (20-28 VDC) See "Output Wiring" section
Power Consumption	<2 VA
Output Signal	0-5 VDC, 0-10 VDC (See Model Number Key)
Output Limit	112% of standard output range maximum value
Frequency Range	40-100 Hz
Response Time (90% of step change)	600 ms
Accuracy	1.0% Full scale
Output Loading	10 KΩ minimum
Isolation Voltage	Tested to 3 KV
Case	UL94 V-0 Flammability rated thermoplastic
Sensing Aperture	0.85" (21.6 mm) square
Environmental	-20 to 50°C, (-4 to 122°F) 0-95% RH, Non-condensing
Listings	Designed to meet UL/cUL and CE approval

Input Maximums

MAXIMUM INPUT AMPS

MODEL	RANGE	6 SEC	1 SEC
ATPR0	0-2 A	125	250
ATPR0	0-5 A	125	250
ATPR1	0-10 A	125	250
ATPR1	0-20 A	150	300
ATPR1	0-50 A	215	400
ATPR2	0-100 A	300	600
ATPR2	0-150 A	450	800
ATPR2	0-200 A	500	1,000

Model Number Key

ATPR 1 - 010 - 24D - SP

SENSOR TYPE:
ATPR - AC current transducers, 24 VAC/VDC powered
0-5 or 10VDC output

RANGE:
0 - 2 and 5 Amps
1 - 10, 20 or 50 Amps
2 - 100, 150 or 200 Amps

OUTPUT:
005 - 0-5 VDC
010 - 0-10 VDC

POWER SUPPLY:
24D - 24 VDC with non-isolated output

CASE STYLE:
SP - Split-Core

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



ATPR SERIES

Powered AC Current Transducers
0-200 A Input Range
0-5 VDC, 0-10 VDC Output

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 30-12 AWG copper wires rated 75°C minimum. Tighten terminals to 5-7 in-lbs torque.
   B. 0-5/10 VDC Models: Make sure output load is at least 10 KΩ to achieve stated accuracy.
4. Choose correct range by positioning the Range Jumper.
5. Energize the sensor by connecting 24 VDC to the power supply terminals.

292000503 Rev 2

Description

The ATPR Series powered AC current transducers combine a current transformer and signal conditioning electronics in a single package for use in applications where the current wave is distorted or non-sinusoidal. The combination of these devices results in a single unit with higher accuracy, fewer individual terminations, and a space-saving simplified installation.

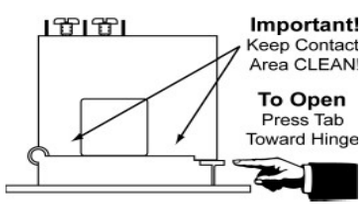
ATPR Series transducers are available in split-core enclosure and with 0-5 VDC or 0-10 VDC analog outputs. Custom input and output ranges may also be available; please consult with the factory. ATPR Series transducers are RMS responding and intended for use in variable speed applications with distorted waveforms, but will also be accurate when used to monitor sinusoid current wave shapes.

Installation

1. Place wire in which current is to be monitored through aperture of ATPR unit.

2. Mount ATPR unit using screw holes in mounting base unit, 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 and can be mounted in any position or hung directly on wiring with the use of wire ties.*

3. Press the tab in the direction as shown to open the sensor. After placing the wire in the opening, press the hinged portion firmly downward until a definite click is heard and the tab pops out fully.

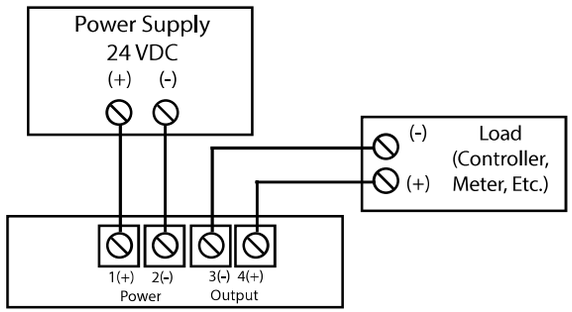


KEEP SPLIT-CORE SENSORS CLEAN.
Silicone grease is factory applied on the mating surfaces to prevent rust and improve performance. Be careful not to allow grit or dirt onto the grease in the contact area. Operation can be impaired if the mating surfaces do not have good contact. Check visually before closing.

Output Wiring

Connect control or monitoring wires to the sensor. Use 30-12 AWG copper wires and tighten terminals to 5-7 inch-pounds torque.

Connection Notes:
- Deadfront captive screw terminals
- 30.-12 AWG solid or stranded
- Observe polarity
- Power and ouptut are not isolated



Range Select

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 that the normal operating amperage.

3. Place the range jumper in the appropriate position.

Trouble Shooting, 0-5 and 0-10 VDC Models

1. Sensor has no output
- A. Polarity is not properly matched. *Check and correct wiring polarity.*
- B. Monitored load is not AC or is not on. *Check that the monitored load is AC and that it is actually on.*
- C. The core contact area may be dirty. *Open the sensor and clean the contact area.*

2. Output Signal Too Low
- A. The jumper may be set in a range too high for current being monitored. *Move jumper to the correct range.*
- B. Output load too low. *Check output load, be sure it is at least 10 KΩ.*
- C. 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 at maximum
- A. The jumper may be set in a range that is too low for current being monitored. *Move jumper to the correct range.*

4. Output does not match the current measured with a hand meter
- A. The ATPR sensors are producing a signal proportional to the RMS current, and not the average current.
- B. Check that the test meter is RMS or the two readings with not match.

292000503 Rev 2