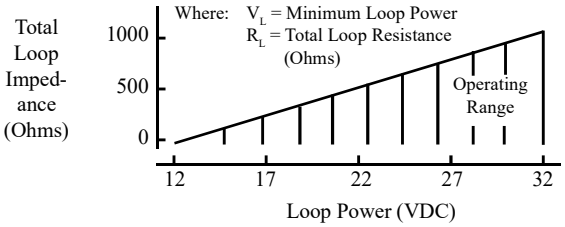
Specifications

Power Supply	24 VDC nominal loop powered 36 VDC maximum
Power Inputs Expressed as:	
Amps	2-120 A
KW	0.5 KW to 100 KW
HP	1/4 HP@120 VAC to 150 HP@480 VAC
Voltage Input	120, 240, 480 or 600 VAC nominal
Voltage Variation	+/- 25% of nominal
Amperage Over-range	150% FS indefinitely 300% FS 10 seconds 600% FS 5 seconds
Output Signal	4-20 mA
Output Limit	22 mA
Accuracy	1% FS
Response Time	100 ms (to 90% of step change)
Frequency Range	50-60 Hz
Indication	Power LED (green)
Output Terminals	Finger-safe captive screw, 10-30 AWG Torque to 5-7 inch pounds
Fusing	External fusing of voltage input recommended
Isolation Voltage	UL tested to 2 KV
Sensing Aperture	0.75" (19.1 mm) diameter
Case	UL94 V-0 Flammability rated
Environmental	-4 to 122°F, -20 to 50°C 0-95% RH Non-condensing
Listings	UL/cUL (except 600 V models)

Power Supply

$V_L = 12\ VDC + (R_L \times .020\ A)$



Model Number Key

Example: APS4-420-24L-10.0
Single phase watt transducer, 480 VAC input, 4-20 mA output with 24 VDC loop powered, 10 KW max input.

APS 4 - 420 - 24L - 10.0

Voltage:
1 - 120 VAC
2 - 240 VAC
4 - 480 VAC
6 - 600 VAC

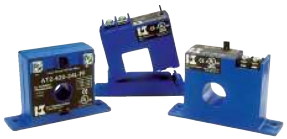
Output:
420 - 4-20 mA

Power Supply:
24L - 24 VDC Loop Powered

Full scale KW:
0.5
0.75
1.0
2.0
5.0
10.0
20.0
50.0
75.0
100.0

Note:
- Not all kW ranges are available for each voltage input range.
- 600 VAC models are not UL/cUL listed.

Know Your Power



Other NK Technologies Products Include:
AC & DC Current Switches
Ground Fault Sensors
Voltage & Power Transducers
Current Transformers (CTs)

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NK Technologies

INSTRUCTIONS

APS Series

AC Power Transducer

True Power of 1ϕ or 3ϕ Balanced Loads

Quick "How To" Guide

1. Route wire to be monitored through aperture. For 480 VAC and/or 3 phase installations, ensure wires are routed through the aperture in a two-pass configuration as shown on reverse side.

2. Mount the sensor to a surface if needed.

3. Connect voltage and output wiring to appropriate terminals. Ensure voltage is derived from same line that runs through the aperture. Use field supplied fuse or circuit breaker per standard wiring practice.
   A. Use 10-30 AWG copper wires rated 75°C minimum, tighten terminals to 5-7 inch-pounds torque.
   B. Make sure loop power meets specifications.

790180010 Rev 6

Description

APS Series are power transducers, measuring voltage,current and power factor concurrently. They provide an analog signal proportional to the true power consumed by the monitored load. They can be applied on single phase loads and on balanced three phase loads.

Wiring

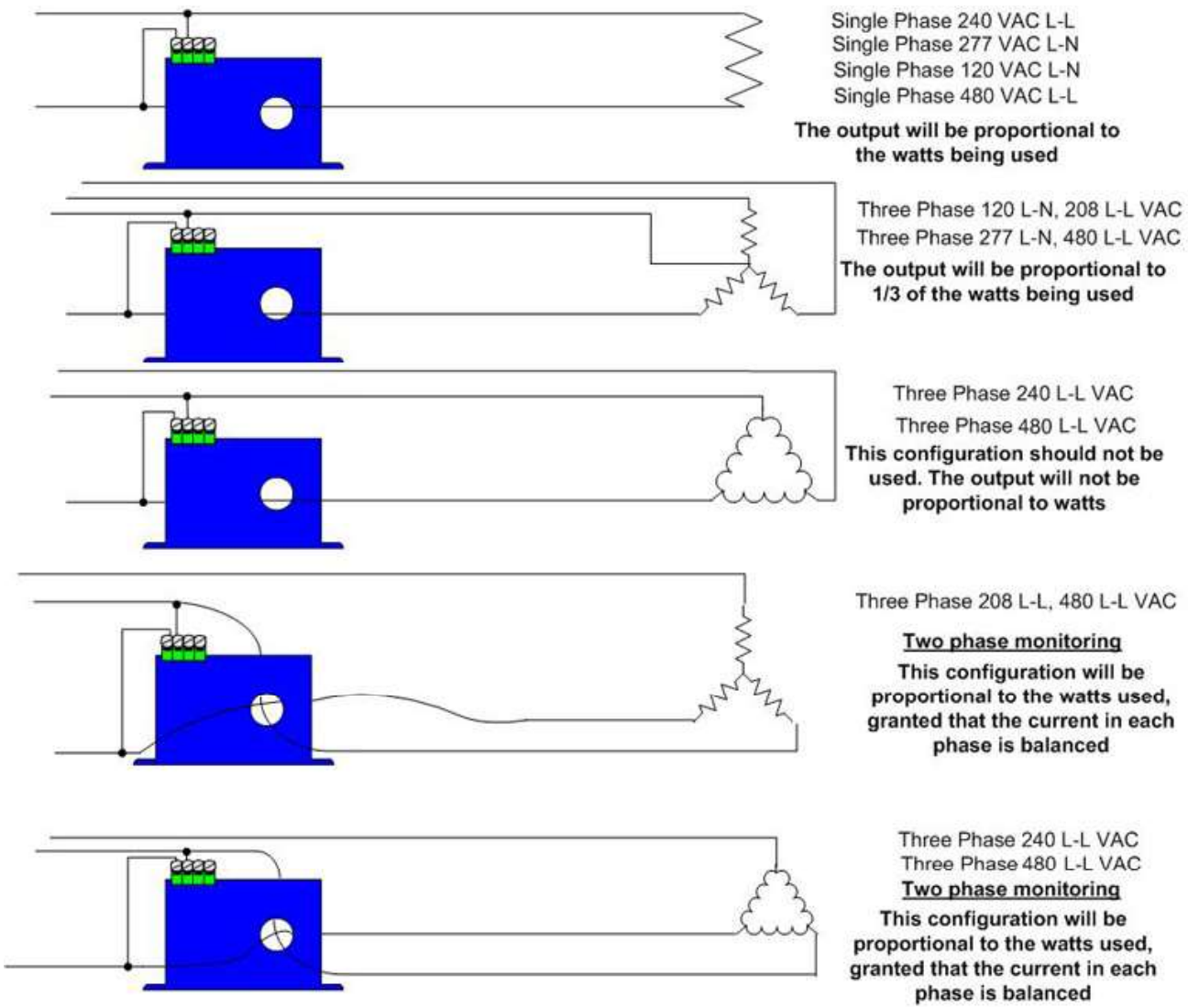
Current Sensing:
Determine the type of electrical load you are monitoring. The diagrams at right show some typical examples. The APS can be used to monitor total power on a balanced 3-phase load, or it can be used in a typical single-phase application. Use 10-30 AWG copper conductors rated at 75°C minimum. Tighten terminals to 5-7 in-lb torque.

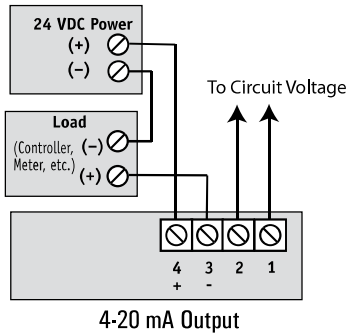
Voltage Connection:
Determine the voltage of the system you are monitoring and make sure the transducer is rated to match. Connect the leads to the appropriate terminal block on the unit as shown in the diagrams at right. Add fuses if required by local code (fuses not included). Use code approved splice materials and techniques.

Output Connection:
The APS transducer is a loop powered unit. Ensure a 24 VDC power supply is in series with the sensor and load as shown. Be sure the supply has sufficient voltage and current available. See Power Supply section.

Environment:
The APS transducer is intended for use in a Pollution Degree 2 environment.

Wiring Details and Output Calibration (con't)





Output signal loop impedance should not exceed 600 ohms when powered by 24 VDC.