Specifications

Power Required	24VAC/VDC or 120VAC, Refer to Model
Output Switch	Mechanical Relay
Switch Rating	NOR - 10A @ 125VAC
Response Time	Adjustable 0 to 15 seconds
Hysteresis	Constant 5% of setpoint
Set Point Ranges	Adjustable 20-50 A
Setpoint Adjust	3/4-turn potentiometer
Isolation Voltage	UL Listed to 1,270 VAC Tested to 5,000 VAC
Frequency Range	40-100Hz See Ordering Information for low frequency operation
Sensing Aperture	-FL 0.75” (19mm)
Operating	5 to122 DegF (-15 to 50 DegC)

Model Number Key

ASXP 2 - NOR - 120 - FL

CASE STYLE:
FL -- Fixed Core

POWER SUPPLY:
120 -- 120VAC

OUTPUT (Mechanical Relay):
NOR -- Normally Open, 10A @ 125 VAC
NCR -- Normally Closed, 10A @ 125 VAC

RANGE:
1 -- 0 - 20 A
2 -- 20 - 50 A

SENSOR TYPE:
ASXP -- Powered AC current operated switch with integral time delay

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)

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NK Technologies

INSTRUCTIONS

ASXP SERIES

Powered AC Current Operated Switch with Integral Time Delay

Quick “How To” Guide

1. Route monitored wire through aperture.
2. Mount the sensor.
3. Connect power supply and output wiring.
   A. Use up to 14 AWG copper wires.
   B. Ensure supply power and load matches that shown on sensor label.
4. Adjust Setpoint and Time Delay.
   A. Use trip adjust potentiometer to choose setpoint.
   B. Use delay potentiometer to select delay (seconds) before contact action once setpoint is exceeded.

ASXP Instruction Sheet, Rev 2.0, 12-08 P/N 394100001

Description

ASXP Series products are powered, current-operated switches which trigger when sensed current levels exceed the adjusted setpoint. Models are available which provide NO or NC mechanical relay contacts. Contact action can be delayed for up to 15 seconds by using the Time Delay Adjust potentiometer.

Installation

ASXP switches can be located in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures.

Mounting can be done in any position or hung directly on wires with a wire tie. Ensure at least one inch clearance exists between sensor and other magnetic devices.

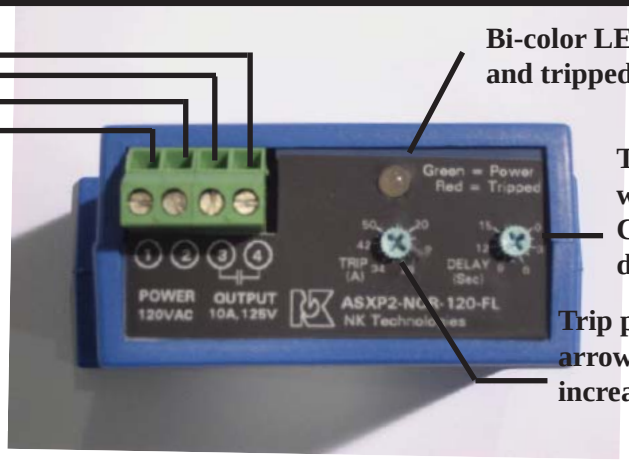
Run wire to be monitored through aperature (opening) in the sensor.

For control or monitoring wiring, use up to 14 AWG copper wire and tighten terminals to 5 inch-pounds torque. Be sure the output load does not exceed the switch rating.

Connect power supply to terminals 1. and 2. on the sensor. Check to ensure supply power matches voltage and type required by sensor. Once powered, the LED on the unit should indicate unit is on by glowing green.

Connect output wiring to terminals 3. and 4. Note that if unit is powered and monitored conductor has current flow, the output contacts may energize depending on setpoint and time delay settings.

Power Supply and Output Wiring



Setpoint Adjustment

ASXP Series setpoint and time delay are adjusted through two 3/4-turn pots which have arrow indication of the selected value. The unit comes from the factory with setpoint set to its maximum (fully clockwise CW) and time delay set to the lowest level (fully counter-clockwise CCW).

Typical Adjustment

1. Turn the **Trip** pot to minimum setpoint. (Fully CCW, 0A or 20A depending on model). Ensure **Delay** pot is at 0 sec. (Fully CCW).
2. Ensure normal operating current running through sensor. The output should be tripped since the pot is at its minimum setpoint and bi-color LED should change from green to red, indicating contacts are energized.
3. Turn the **Trip** pot CW until the unit un-trips. This is indicated by the LED changing color from red to green and by the changing of the output switch status.
4. Now turn the **Trip** pot CCW slowly until the unit trips again.
   It is now set at the current level being monitored. This value can be confirmed by reading the trip point off the graded scale of the trip pot.
   A. To Set UNDERLOAD - Turn pot ***slightly*** CCW.
   B. To Set OVERLOAD - Turn pot ***slightly*** CW.
5. Adjust the **Delay** of the contact action in the same fashion. Increase time delay by turning pot CW to desired value using scale on Delay potentiometer.

Trouble Shooting

1. **Sensor is always tripped**
   A. The setpoint may be too low. *Turn pot CW to increase setpoint.*
   B. Switch has been overloaded and contacts are burned out. *Check the output load, remembering to include inrush on inductive loads (coils, motors, ballasts)*
2. **Sensor will not trip**
   A. The setpoint may be too high. *Turn pot CCW to decrease setpoint.*
   B. 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.*
   C. Switch has been overloaded and contacts are burned out. *Check the output load, remembering to include inrush on inductive loads (coils, motors, ballasts).*