Specifications

Power Required	None - self powered
Output Switch	5 amp @ 240VAC Electromechanical relay
Switch Rating	NOR- N.O. 5A, 120 VAC , 30VDC
Off State Leakage	NONE
Response Time	0.120 Second
Hysteresis	Approx 5% of Setpoint
Setpoint, -GO Option	Fixed Core: 5.6 A Max trip
Setpoint Adjust	None
Isolation Voltage	UL Listed to 1,270 VAC Tested to 5,000 VAC
Frequency Range	6-100Hz
Sensing Apeture	-FT 0.75" (19mm)
Environmental	-4 to122° F (-20 to 50° C) 0-95% RH, Non Condensing
Listings	UL/cUL

Model Number Key

AS1 - NOR - FT - GO

OPTIONS:
GO - Go/No-Go Sensor

CASE STYLE:
FT - Fixed Core, Top Terminals

OUTPUT (SPST Relay):
NOR - Normally Open, 5.0A, 120 VAC, 30VDC

SENSOR TYPE:
AS1 - AC current operated switch with a single extended range

NK Technologies

INSTRUCTIONS

AS1-NOR SERIES

AC Current Operated Switch
Go-No Go non-adjustable, Relay Output

Ranges & Maximum Amps

Fixed Setpoint Sensors (-GO)

TYPE	MIN. TRIP POINT	MAXIMUM INPUT AMPS		
		CONTINUOUS	6 SEC.	1 SEC.
FIXED CORE, NOU	5.6A	250A	400A	1000A

Know Your Power

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

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Quick "How To" Guide

1. Run the wire to be monitored through aperture.
2. Mount the sensor.
3. Connect output wiring.
   A. Use up to 14 AWG copper wires.
   B. Ensure load matches the output shown on the sensor label.
4. Energize the load
   A. Output closes at 5.6 amps

AS1-NOR Inst. Rev 2 12/14 P/N 39-450-0005

Description

AS1 Series are self-powered, SPST relay output current-operated switches which trigger when the current level sensed through the aperture exceeds the minimum. The relay output contacts can switch up to 120 VAC or 30 VDC; this "universal" output makes them well suited for application in automation systems.

Installation

For All Versions

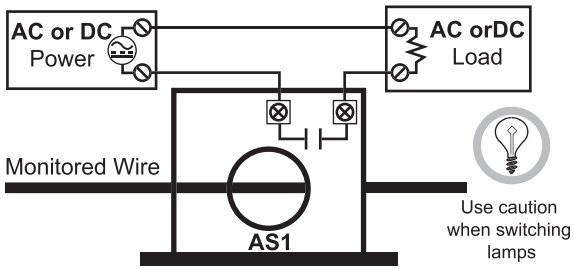
Run wire to be monitored through aperture (opening) in the sensor.

AS1 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.

Output Wiring

Connect control or monitoring wires to the sensor. 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.

CAUTION Incandescent lamps can have "Cold Filament Inrush" current of up to 10 times their rated amperage. Use caution when switching lamps.



Setpoint Adjustment

AS1-NOR Series is non-adjustable, meaning the output closes when there is current circulating in the primary conductor over the minimum.

Adjustment Notes:

1. Output contacts are relay contacts. Check output status by checking continuity with a standard ohmmeter, or measuring the voltage across the open or closed contact.

Typical Adjustment

No adjustment is needed. The relay will change state when AC current exceeds 5.6 amps. If the monitored conductor is passed through the sensing window multiple times, the output will close at a lower primary current. If the conductor passes through the sensor twice, the relay will close with primary current of 2.8 AC amps; if it is passed through the sensor three times, the relay will close at 1.87 amps. It is best to bundle the loops together with nylon ties.

Trouble Shooting

1. Sensor is always tripped

A. Load current may be too high to allow the output to open at "low current:" conditions.

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. 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.*

D. Switch has been overloaded and contacts are burned out. *Check the output load, remembering to include inrush on inductive loads (coils, motors, ballasts).*