

# ASO SERIES

## Current Sensing Switches

ASO Series Low-current Current Sensing Switches are specialized current sensing switches that combine an ultra-sensitive current transformer and signal conditioning electronics into a single package for sensing AC current from 3–350 mA. Useful for signal or lamp status monitoring, detecting low level fault currents or fan status proofing, the ASO Series features solid-state outputs and jumper-selectable ranges, which make it a versatile choice for low-current status indication applications.



### Current Sensing Switch Applications

#### Fan Monitoring

- Fan status in heating and drying applications.
- Identify lamp outages or other malfunctions through changes in current consumption.

#### Fractional HP Motors

- Ideal for monitoring small motors used in critical applications, for example, fan status proofing on a crucial cooling fan.

#### LED Lamp Operation

- Switch can detect LED light sources drawing less than one half watt at 120 VAC.

### Current Sensing Switch Features

#### Wide Range of Output Options

- Dependable, solid-state relay N.O. or N.C. contacts rated at 240 VAC or 30 VDC.
- Compatible with most automation controllers.

#### Isolated Inputs and Outputs

- Inductive sensing eliminates insertion loads on monitored circuits, effectively isolating it from the unit.
- Isolated outputs simplify wiring and enhance safety.

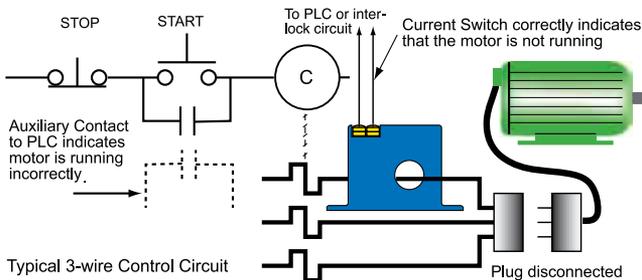
#### Adjustable Setpoints

- Setpoints are field-adjustable from 3 mA to 350 mA, speeding installation and allowing for tailored applications.

#### UL/cUL and CE Approved

- Accepted worldwide.

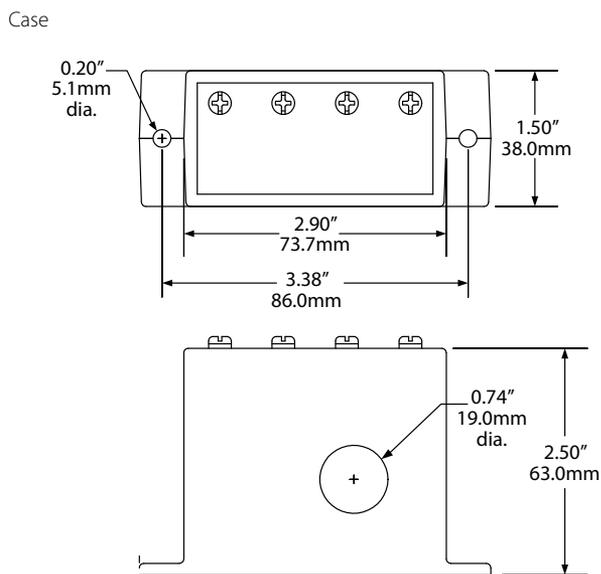
#### Status Alarming



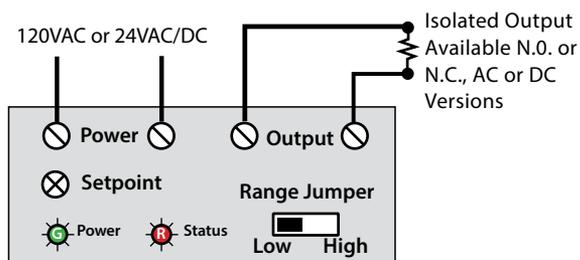
For additional Application Examples, go to [www.nktechnologies.com/applications](http://www.nktechnologies.com/applications)

**OEMs** Test & Evaluation Units for OEMs  
Free program expedites evaluation process. See page 1 for details.

### Current Sensing Switch Dimensions



### Current Sensing Switch Connections



Notes:  
 Terminals are #6 screws.  
 Use up to 14 AWG solid or stranded.  
 Power connections are not polarity sensitive.  
 DC output connections are polarity sensitive.

### Current Sensing Switch Specifications



<b>Power Supply</b>	<ul style="list-style-type: none"> <li>• 120 VAC (96–144 V)</li> <li>• 24 VAC/DC (19–29 V)</li> </ul>
<b>Power Consumption</b>	2.5 VA
<b>Setpoint Range</b>	<ul style="list-style-type: none"> <li>• Low Range: 3–15 mA (adjustable)</li> <li>• High Range: 15–350 (adjustable)</li> </ul>
<b>Input</b>	10 A max.
<b>Output Rating</b>	<ul style="list-style-type: none"> <li>• AC Version: 1 A @ 240 VAC</li> <li>• DC Version: 0.15 A @ 30 VDC</li> </ul>
<b>Response Time</b>	<ul style="list-style-type: none"> <li>• 150 ms @ 5% above setpoint</li> <li>• 100 ms @ 50% above setpoint</li> </ul>
<b>Time Delay</b>	None
<b>Hysteresis</b>	<5%
<b>Overload</b>	10 A continuous
<b>Isolation Voltage</b>	UL listed to 1270 VAC, tested to 5 KV
<b>Frequency Range</b>	50–400 Hz
<b>Case</b>	UL94 V-0 Flammability Rated
<b>Environmental</b>	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
<b>Listings</b>	UL/cUL (most models), CE

Current Sensing Switches

### Current Sensing Switch Ordering Information

Sample Model Number: AS0-NODC-120

Ultra low current sensing switch, normally open solid-state DC output and 120 VAC power supply. (DIN rail adapters are included)



#### (1) Output Type

NCAC	Normally Closed, 1 A @ 240 VAC
NOAC	Normally Open, 1 A @ 240 VAC
NCDC	Normally Closed, 0.15 A @ 30 VDC
NODC	Normally Open, 0.15 A @ 30 VDC

#### (2) Power Supply

24U	24 VAC/DC
120	120 VAC

