

# ASO SERIES

## Current Sensing Switches

ASO Series Current Sensing Switches are designed to detect very low AC current, and provide a solid-state contact to open or close at a setpoint adjustable from 3 to 350 mA across two ranges. 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.

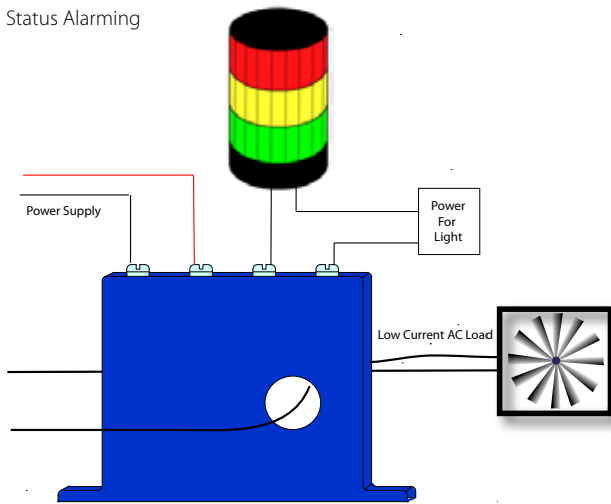
#### Adjustable Setpoints

- 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)

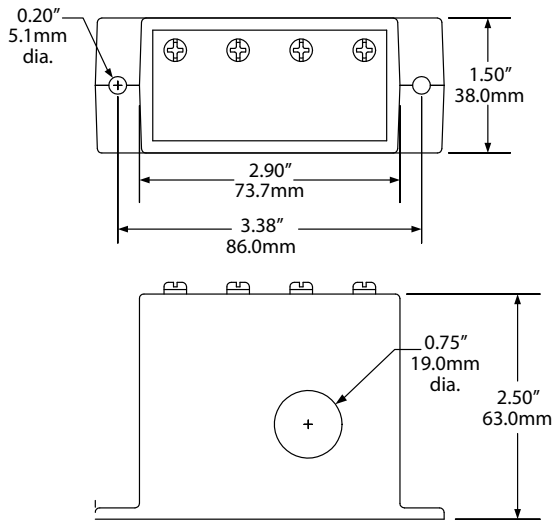
OEMs

Test & Evaluation Units for OEMs

Free program expedites evaluation process. See page 3 for details.

### Current Sensing Switch Dimensions

Case



### Current Sensing Switch Specifications

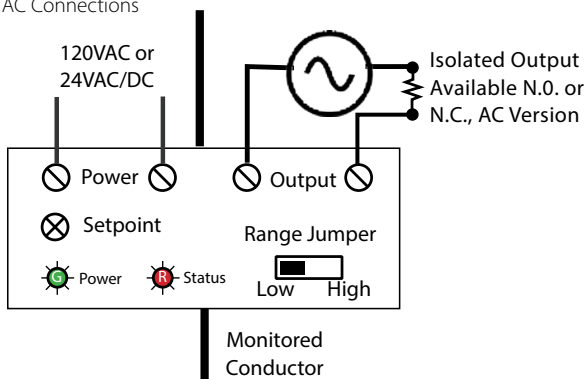


<b>Power Supply</b>	<ul style="list-style-type: none"> <li>• 120 VAC (96–144 V)</li> <li>• 24 VAC/DC (19–29 V)</li> </ul>
<b>Power Consumption</b>	2.5 VA
<b>Setpoint Range</b>	<ul style="list-style-type: none"> <li>• Low Range: 3–15 mA (adjustable)</li> <li>• High Range: 15–350 mA (adjustable)</li> </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>	1270 VAC, tested to 5 KV
<b>Frequency Range</b>	50–400 Hz
<b>Case</b>	UL94 V-0 Flammability Rated
<b>Environmental</b>	<ul style="list-style-type: none"> <li>-4 to 122°F (-20 to 50°C)</li> <li>0–95% RH, non-condensing</li> </ul>
<b>Listings</b>	UL/cUL, CE

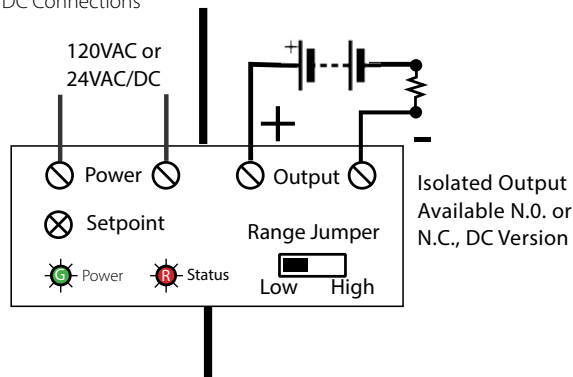
Current Sensing Switches

### Current Sensing Switch Connections

AC Connections



DC Connections



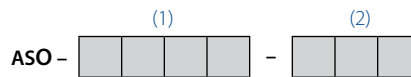
Notes:

- 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 Ordering Information

Sample Model Number: ASO-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

