

# AS1 SERIES

## Current Sensing Switches

AS1 Series Current Sensing Switches combine a current transformer, signal conditioner and limit alarm into a single package for use in status monitoring or proof of operation applications. Offering an extended setpoint range of 1–150 A and universal, solid-state outputs, the self-powered AS1 can be tailored to provide accurate and dependable digital indication of overcurrent conditions across a broad range of applications. Available in solid-core case styles or in a split-core case to maximize ease of installation.



### Current Sensing Switch Applications

#### Electronic Proof of Flow

- Current sensing switches eliminate the need for multiple pipe or duct penetrations and are more reliable than electromechanical pressure or flow switches.

#### Conveyors

- Detects jams and overloads.
- Interlocks multiple conveyor sections.

#### Lighting Circuits

- Proof positive that the lamp is energized.

#### Electrical Heaters

- Faster response than temperature sensors.

### Current Sensing Switch Features

#### Universal Output

- N.O. or N.C. solid-state switch for control circuits up to 240 VAC/DC.
- Compatible with most automation systems.

#### Self-powered

- Cuts installation and operating costs.

#### Easily Adjustable Setpoint

- Speeds startup.

#### Solid or Split-core Case

- Versions tailored for each installation.

#### LED Indication

- Provides quick visual indication of contact status.

#### Built-in Mounting Feet

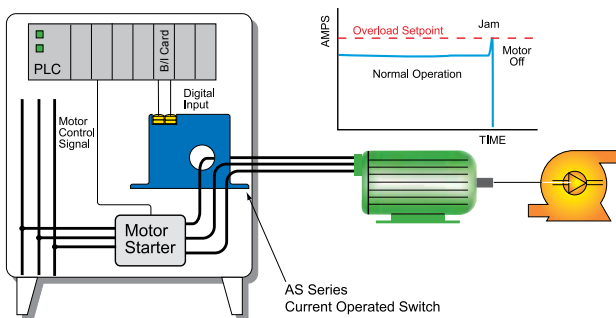
- Simple, two-screw panel mounting or attach with optional DIN rail brackets.\*

#### UL/cUL and CE Approved

- Accepted worldwide.

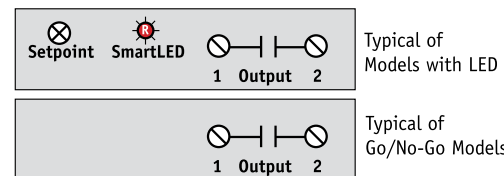
\*For information on the DIN rail accessories kit, see page 122.

### Pump Jam & Suction Loss Protection



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

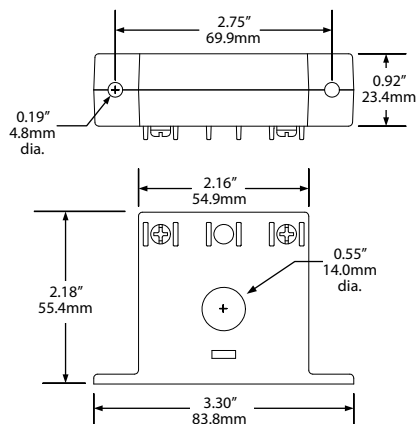
### Current Sensing Switch Connections



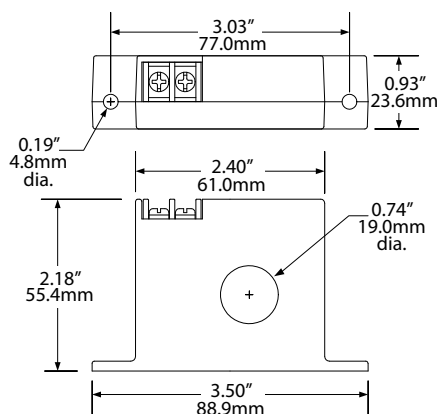
**OEMs** Test & Evaluation Units for OEMs  
Free program expedites evaluation process. See page 1 for details.

Current Sensing Switch Dimensions

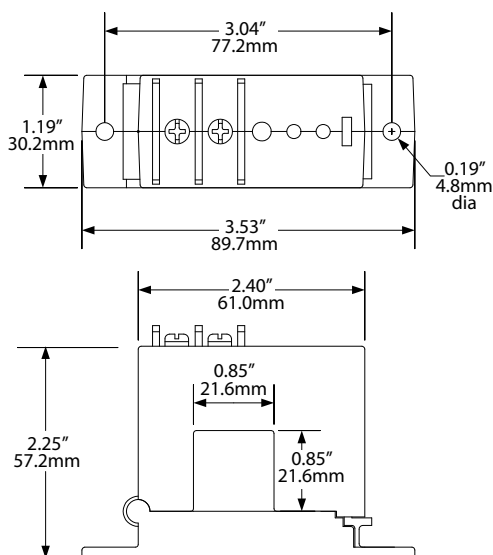
FF Case



FT Case



SP Case



Current Sensing Switch Specifications



<b>Power Supply</b>	None, Self-powered												
<b>Setpoint Range</b>	<ul style="list-style-type: none"> <li>• Solid-core: 1–150 A (adjustable-specific models)</li> <li>• Split-core: 1.75–150 A (adjustable-specific models)</li> </ul>												
<b>Output Description</b>	Isolated solid-state relay												
<b>Output Rating</b>	<ul style="list-style-type: none"> <li>• N.O. Version 0.15 A @ 240 VAC or VDC</li> <li>• N.C. Version: 0.2 A @ 135 VAC or VDC</li> <li>• Not polarity sensitive</li> </ul>												
<b>Off-state Leakage</b>	<10 $\mu$ A												
<b>Response Time</b>	120 ms max.												
<b>Time Delay</b>	None												
<b>Hysteresis</b>	5%												
<b>Overload</b>	<table border="1"> <thead> <tr> <th>MODEL</th> <th>6 SEC.</th> <th>1 SEC.</th> </tr> </thead> <tbody> <tr> <td>• -GO (NOU)</td> <td>• 500 A</td> <td>• 1000 A</td> </tr> <tr> <td>• -GO (NCU)</td> <td>• 400 A</td> <td>• 1000 A</td> </tr> <tr> <td>• All other</td> <td>• 400 A</td> <td>• 1000 A</td> </tr> </tbody> </table>	MODEL	6 SEC.	1 SEC.	• -GO (NOU)	• 500 A	• 1000 A	• -GO (NCU)	• 400 A	• 1000 A	• All other	• 400 A	• 1000 A
MODEL	6 SEC.	1 SEC.											
• -GO (NOU)	• 500 A	• 1000 A											
• -GO (NCU)	• 400 A	• 1000 A											
• All other	• 400 A	• 1000 A											
<b>Isolation Voltage</b>	UL listed to 1270 VAC, tested to 5 KV												
<b>Frequency Range</b>	6–100 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, CE												

Current Sensing Switches

Current Sensing Switch Ordering Information

Sample Model Number: AS1-NOU-SP  
Adjustable AC current sensing switch, normally open, split-core case.



(1) Output Rating

NOU	Normally Open
NCU	Normally Closed

(2) Case Style

FF	Solid-core, Front Term.
FT	Solid-core, Top Term.
SP	Split-core

(3) Options

GO	Non-adjustable; output changes with min. current present (solid-core 0.75 A, split-core 1.25 A)
NL	No LED
Y39	Output Bypass Switch (not UL listed) – available for FT case only
	Standard, with LED (blank)

