

# AS3 SERIES

## Current Sensing Switches

AS3 Series Current Sensing Switches provide the same dependable indication of status offered by the AS1, but with the added benefit of increased setpoint accuracy. A choice of three, jumper-selectable input ranges allows the AS3 to be tailored to an application, providing more precise control through improved setpoint resolution. Self-powering, isolated solid-state outputs, 1–6 A, 6–40 A and 40–200 A input ranges, and a choice of split- or solid-core case are standard.

### Current Sensing Switch Applications

#### Electronic Proof of Flow

- No need for pipe or duct penetrations.
- More reliable than electromechanical pressure or flow switches.

#### Conveyors

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

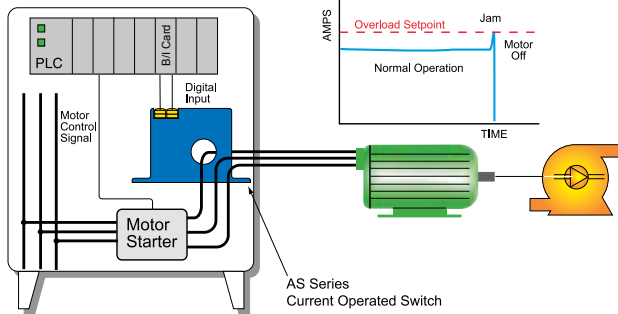
#### Lighting Circuits

- Easier to install and more accurate than photocells.

#### Electrical Heaters

- Faster response than temperature sensors.

### Pump Jam & Suction Loss Protection



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



### Current Sensing Switch Features

#### Choice of N.O. or N.C. Solid-State Outputs

- 1 A @ 240 VAC, 0.15 A @ 30 VDC.
- 15 A @ 120 VAC (-15 model).
- 3 A @ 120 VAC output optional.

#### Self-powered

- Cuts installation and operating costs.

#### Easily Adjustable Setpoint

- Speeds startup.

#### Solid- or Split-core Case

- Choose the appropriate version for each installation.

#### LED Indication

- Provides quick visual indication of contact status.

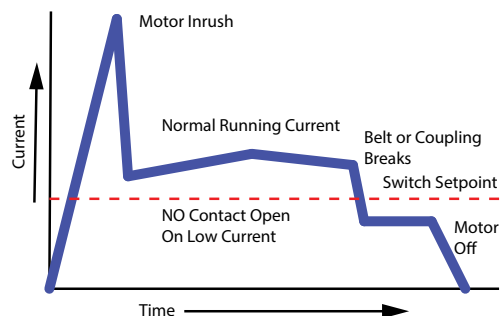
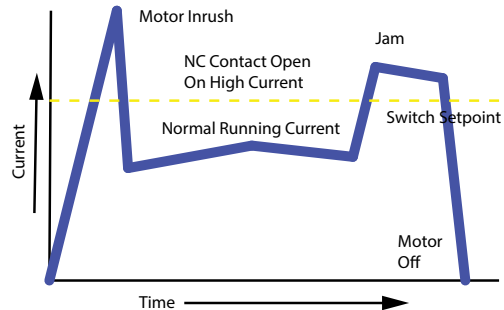
#### Built-in Mounting Feet

- Provides the secure installation inspectors require.

#### UL/cUL and CE Approved

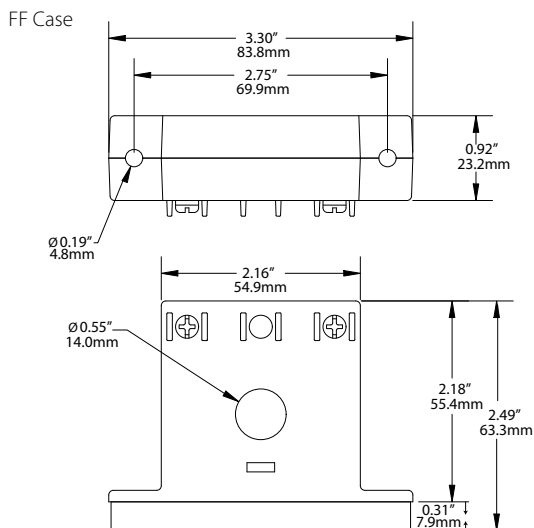
- Accepted worldwide.

### AS1, AS3, ASX, ASXP Series Sample Output



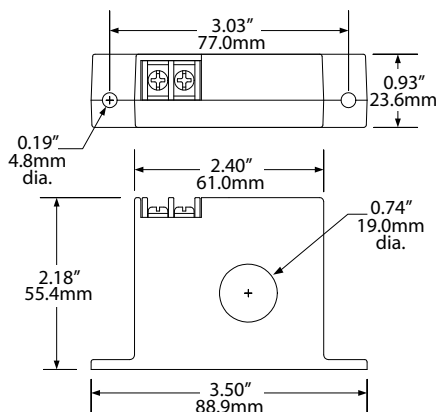
**OEMs** Test & Evaluation Units for OEMs  
Free program expedites evaluation process. See page 1 for details.

### Current Sensing Switch Dimensions

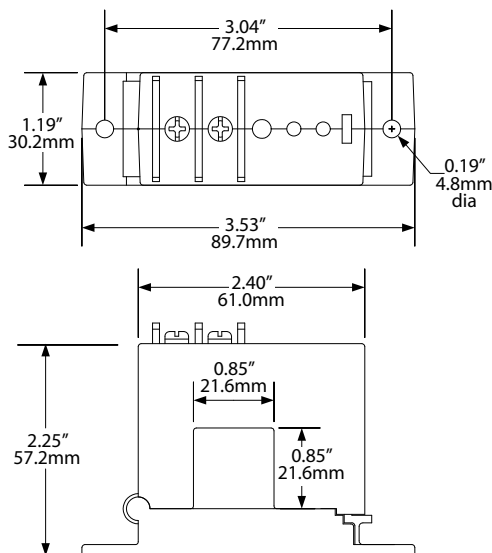


Note: The bottom 0.31" applies to -15 option only.

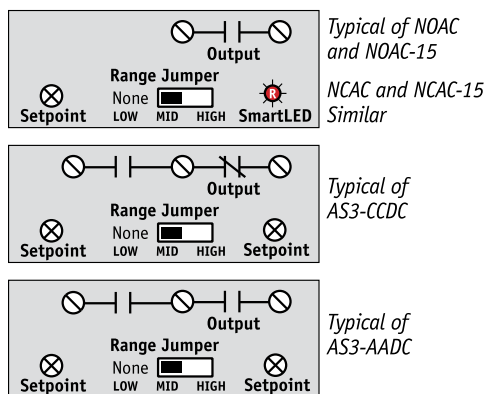
### FT Case



### SP Case



### Current Sensing Switch Connections



Note: Terminals are #6 screws. DC contacts are polarity sensitive.

### Current Sensing Switch Specifications



<b>Power Supply</b>	None, Self-powered												
<b>Setpoint Range</b>	<ul style="list-style-type: none"> <li>Solid-core: 1-6, 6-40 &amp; 40-175 A (adjustable)</li> <li>Split-core: 1.75-6, 6-40 &amp; 40-200 A (adjustable)</li> </ul>												
<b>Output Description</b>	Isolated solid-state relay												
<b>Output Rating</b>	<ul style="list-style-type: none"> <li>1.0 A @ 240 VAC (standard AC units)</li> <li>0.15 A @ 30 VDC (standard DC &amp; multi-pole units)</li> <li>15 A @ 120 VAC, 10 A @ 240 VAC (-15 option)</li> </ul>												
<b>Off-state Leakage</b>	<ul style="list-style-type: none"> <li>NOAC: &lt;10 µA</li> <li>NCAC: 2.5 mA</li> <li>AADC: &lt;10 µA</li> <li>NODC: &lt;10 µA</li> <li>NCDC: 1.4 mA</li> <li>CCDC: 0.3 mA (N.C. Terminal)</li> </ul>												
<b>Response Time</b>	2.5 sec. max.												
<b>Time Delay</b>	None												
<b>Hysteresis</b>	Low: 0.15 A, Mid: 0.3 A, High: 0.9 A												
<b>Overload</b>	<table border="1"> <thead> <tr> <th>RANGE</th> <th>6 SEC.</th> <th>1 SEC.</th> </tr> </thead> <tbody> <tr> <td>• 1-6 A</td> <td>• 400 A</td> <td>• 600 A</td> </tr> <tr> <td>• 6-40 A</td> <td>• 500 A</td> <td>• 800 A</td> </tr> <tr> <td>• 40-175 A</td> <td>• 800 A</td> <td>• 1200 A</td> </tr> </tbody> </table>	RANGE	6 SEC.	1 SEC.	• 1-6 A	• 400 A	• 600 A	• 6-40 A	• 500 A	• 800 A	• 40-175 A	• 800 A	• 1200 A
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<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												

\*UL listing for -FF and -SP models only.



**Current Sensing Switch Ordering Information**

Sample Model Number: AS3-NOAC-FF-NL  
Adjustable AC current sensing switch, normally open AC contacts, solid-core case, without indicating LED.



(1) Output Rating

NOAC	Normally Open, 1 A @ 240 VAC
NCAC	Normally Closed, 1 A @ 240 VAC
NODC	Normally Open, 0.15 A @ 30 VDC
NCDC	Normally Closed, 0.15 A @ 30 VDC
AADC	Dual, Normally Open, 30 VDC (-FF only)
CCDC	1 N.O., 1 N.C. Solid State, 0.15 A @ 30 VDC (-FF only)

(2) Case Style

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

(3) Options

NL	No LED
03	3 A @ 120 VAC (-FT only, not UL listed)
15	15 A @ 120 VAC (-FF only)
	(Blank is standard)



The AS3 series current sensing switches are the go-to models for a huge variety of applications. The models designed to control AC circuits can be manufactured with 1, 3 or 15 A capacities. The models with DC capabilities can be manufactured with dual contacts, adjustable between the selected ranges. NK Technologies’ original designs are refined to a wide range of application.

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Free program expedites evaluation process. See page 1 for details.