

# 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.

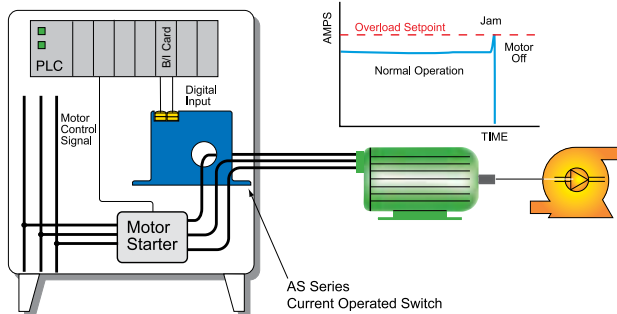
#### Lighting Circuits

- 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)

OEMs

#### Test & Evaluation Units for OEMs

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



### 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.

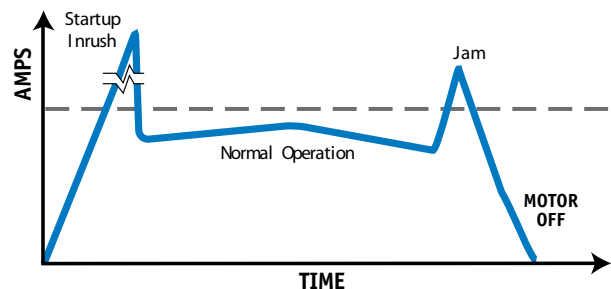
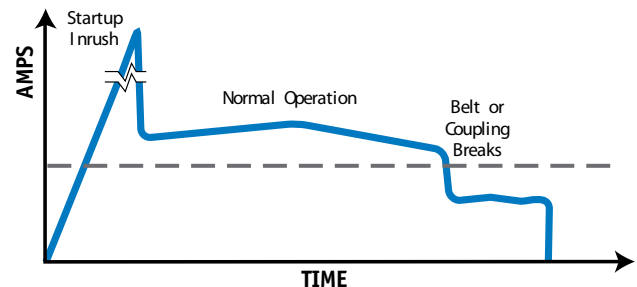
#### Built-in Mounting Feet

- Provides the secure installation inspectors require.

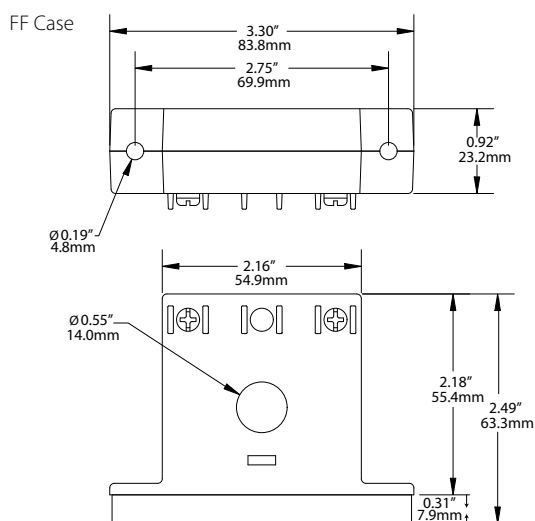
#### UL, CUL and CE Approval

- Accepted worldwide.

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

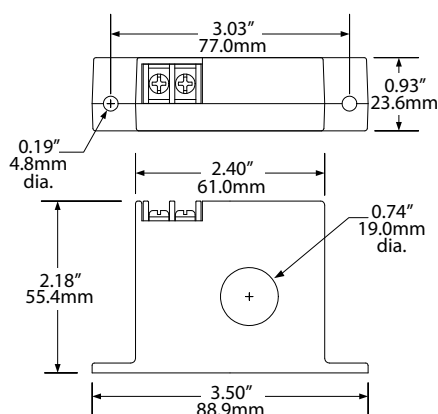


## Current Sensing Switch Dimensions

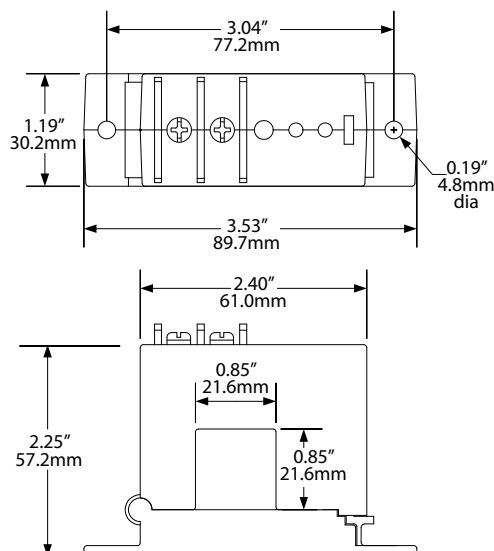


Note: The bottom 0.31" applies to -15 option only.

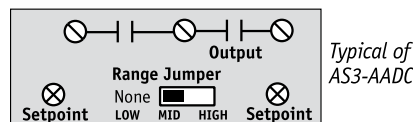
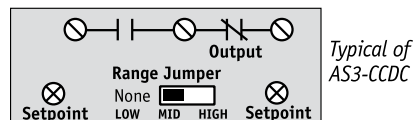
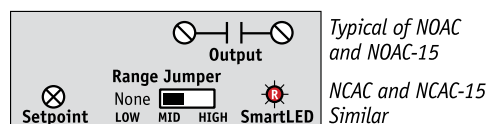
FT Case



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>Output</b>	Isolated solid-state relay; shared common (CCDC, AADC)		
<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 <math>\mu</math>A</li> <li>NCAC: 2.5 mA</li> <li>AADC: &lt;10 <math>\mu</math>A</li> </ul>	<ul style="list-style-type: none"> <li>NODC: &lt;10 <math>\mu</math>A</li> <li>NCDC: 1.4 mA</li> <li>CCDC: 0.3 mA (N.C. Terminal)</li> </ul>	
<b>Response Time</b>	1.25–2.5 sec.		
<b>Setpoint Range</b>	<ul style="list-style-type: none"> <li>Solid-core: 1–6, 6–40 &amp; 40–175 A</li> <li>Split-core: 1.75–6, 6–40 &amp; 40–200 A</li> </ul>		
<b>Hysteresis</b>	Low: 0.15 A, Mid: 0.3 A, High: 0.9 A		
<b>Overload</b>	RANGE	6 SEC.	1 SEC.
	<ul style="list-style-type: none"> <li>1–6 A</li> <li>6–40 A</li> <li>40–175 A</li> </ul>	<ul style="list-style-type: none"> <li>400 A</li> <li>500 A</li> <li>800 A</li> </ul>	<ul style="list-style-type: none"> <li>600 A</li> <li>800 A</li> <li>1200 A</li> </ul>
<b>Isolation Voltage</b>	UL listed to 1270 VAC, tested to 5000 VAC		
<b>Frequency Range</b>	6–100 Hz		
<b>Sensing Aperture</b>	<ul style="list-style-type: none"> <li>-FF Case: 0.55" (14.0 mm) dia.</li> <li>-FT Case: 0.74" (19.0 mm) dia.</li> <li>-SP Case: 0.85" (21.6 mm) sq.</li> </ul>		
<b>Case</b>	UL94 V0 Flammability Rated		
<b>Environmental</b>	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing		
<b>Listings</b>	UL 508 Industrial Control Equipment (USA & Canada)*, 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.

AS3 –  <sup>(1)</sup> –  <sup>(2)</sup> –  <sup>(3)</sup>

#### (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)

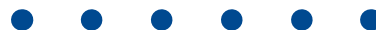
#### (2) Case Style

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

\*Available with 3 A @ 120 VAC output.

#### (3) Options

NL	No LED
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.



#### Test & Evaluation Units for OEMs

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



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