

# 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 (up to 600 VAC), 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.

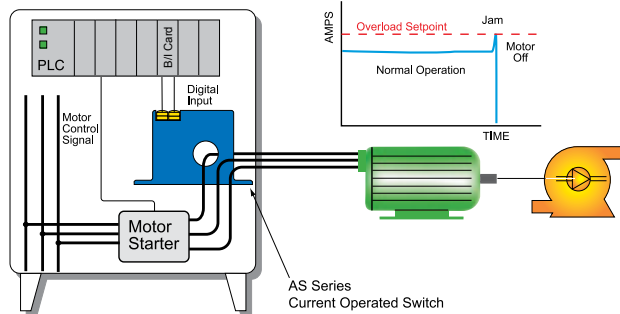
#### Lighting Circuits

- 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)

\*For information on the DIN rail accessories kit, see page 153.



### Current Sensing Switch Features

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

- 1 A @ 240 VAC or 0.15 A @ 30 VDC.
- 3 A @ 120 VAC (-03 model).
- 15 A @ 120 VAC (-15 model).

#### 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.

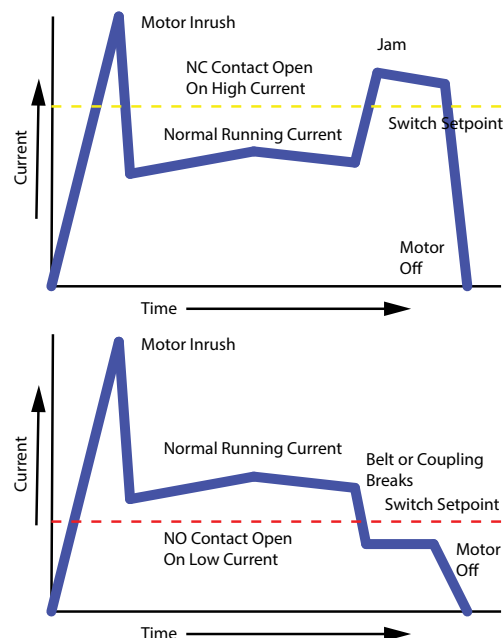
#### Built-in Mounting Feet

- Simple, two-screw panel mounting or attach with included DIN rail adapter kit (DIN-2)\*

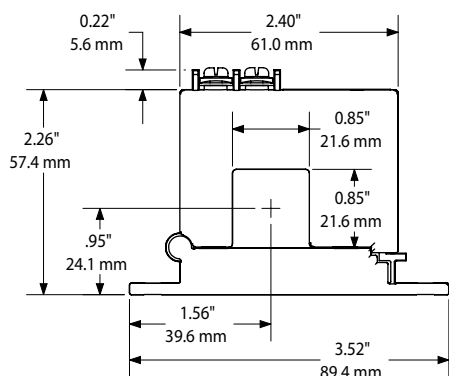
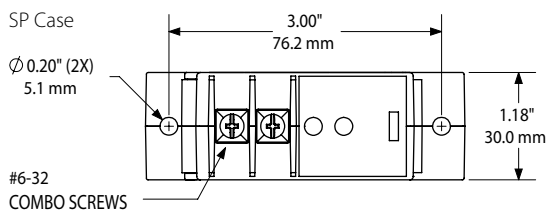
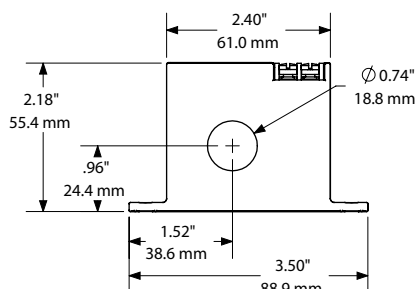
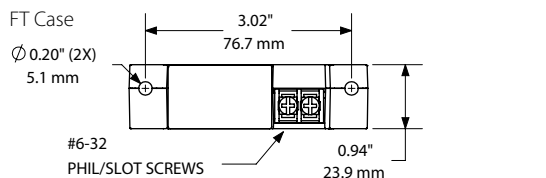
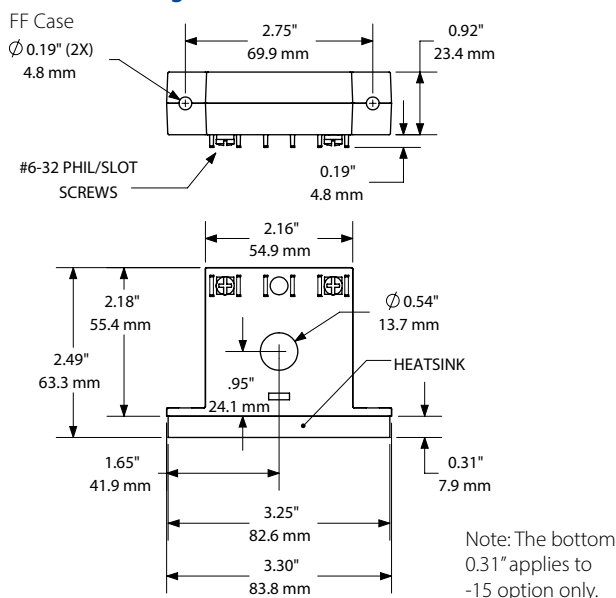
#### UL/cUL Listed and CE Certified

- Accepted worldwide.

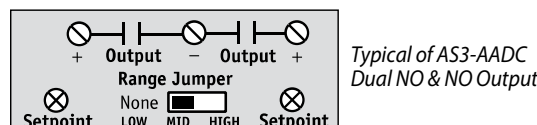
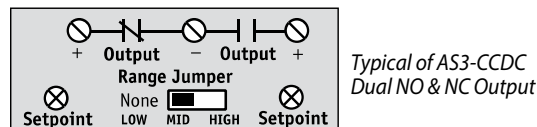
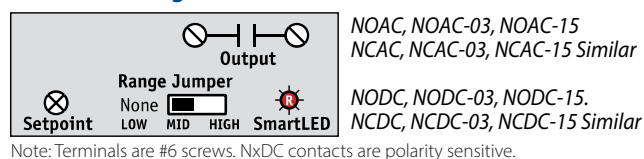
### AS1, AS3, ASX, ASXP Series Sample Output



## Current Sensing Switch Dimensions



## Current Sensing Switch Connections



## Current Sensing Switch Specifications



Power Supply	None, self-powered			
Setpoint Range	<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>			
Output Switch	Isolated solid-state switch			
Output Rating	<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>• 3 A @ 120 VAC (-03 option)</li><li>• 15 A @ 120 VAC, 10 A @ 240 VAC (-15 option) When mounted on 1ft², 930 cm² metal surface. Max 3 A in free air.</li></ul>			
Off-state Leakage	<ul style="list-style-type: none"><li>• NOAC: &lt;10 µA</li><li>• NCAC: 2.5 mA</li><li>• AADC: &lt;10 µA</li></ul>	<ul style="list-style-type: none"><li>• NODC: &lt;10 µA</li><li>• NCDC: 1.35 mA</li><li>• CCDC: 0.3 mA (N.C. Terminal)</li></ul>		
Response Time	2.5 sec. max.			
Time Delay	None			
Hysteresis	5% of Setpoint			
Overload	RANGE	CONTINUOUS	6 SEC.	1 SEC.
	• 1-6 A	• 150 A	• 400 A	• 600 A
	• 6-40 A	• 150 A	• 500 A	• 800 A
	• 40-175 A	• 210 A	• 800 A	• 1200 A
Isolation Voltage	UL listed to 5000 VAC			
Frequency Range	6–100 Hz			
Case	UL94 V-0 Flammability Rated			
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing -03/-15 versions 104°F (40°C) ambient			
Listings	UL Listed to UL 508 ( <a href="#">NRNT.E129625</a> ), CE			



## 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. (DIN rail adapters are included)

AS3 – (1) – (2) – (3)

### (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, 0.15 A @ 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 terminal
SP	Split-core
FT	Solid-core, top terminal

### (3) Options

NL	No LED (NOAC-FF, NCAC-FF, NODC-FF, NCDC-FF, NODC-SP only)
03	3 A @ 120 VAC (NOAC-FT, NCAC-FT only)
15	15 A @ 120 VAC (NOAC-FF, NCAC-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 applications.

## AS3 Series: Available Configurations

		Options & Case Styles						
		Standard (1 A AC or 0.15 A DC)			No LED (-NL)		3 A (-03)	15 A (-15)
Relay	AC DC	FF	SP	FT	FF	SP	FT	FF
NOAC	•	•	•	•	•		•	•
NCAC	•	•	•	•	•		•	•
NODC	•	•	•	•	•	•		
NCDC	•	•	•	•	•			
AADC	•	•						
CCDC	•	•						