

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.

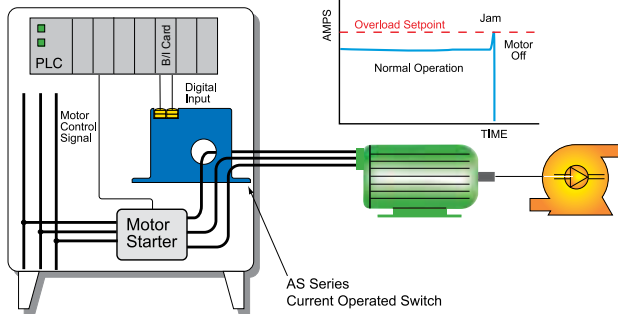
Lighting Circuits

- 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

OEMs

Test & Evaluation Units for OEMs

Free program expedites evaluation process. See page 3 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 (-03 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.

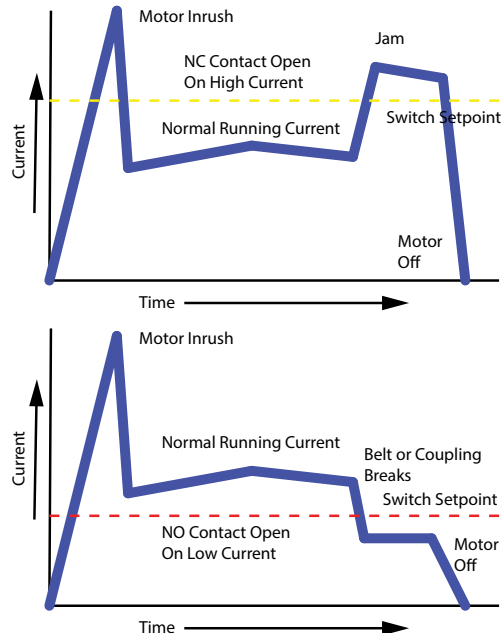
Built-in Mounting Feet

- Provides the secure installation inspectors require.

UL/cUL and CE Approved

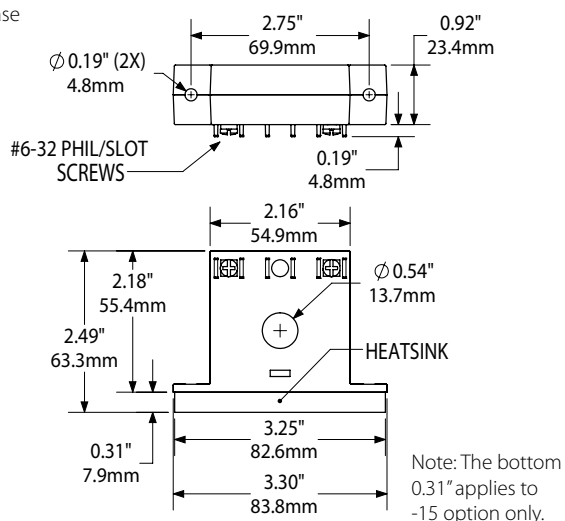
- Accepted worldwide.

AS1, AS3, ASX, ASXP Series Sample Output

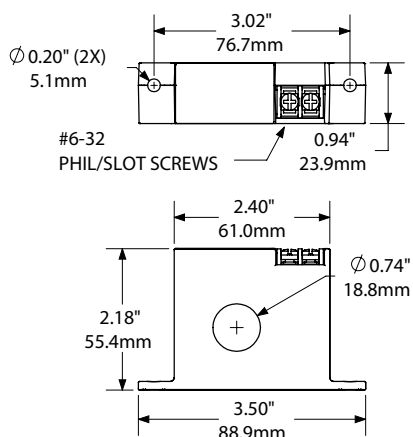


Current Sensing Switch Dimensions

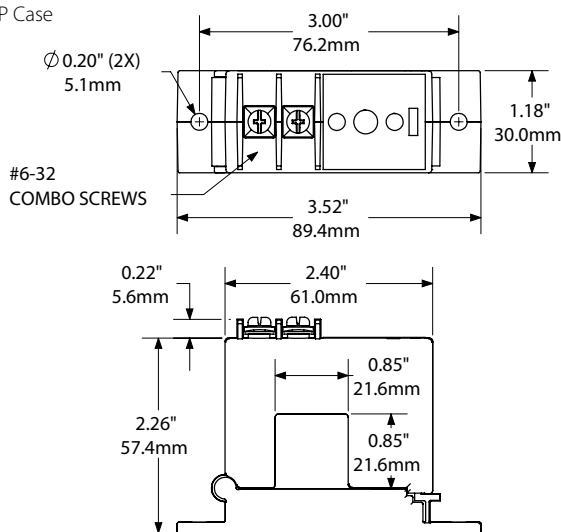
FF Case



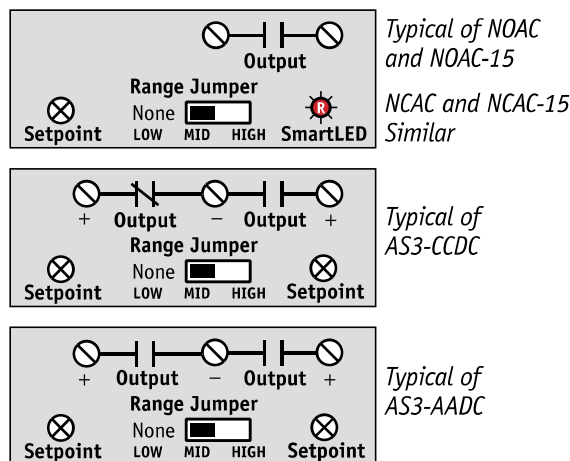
FT Case



SP Case



Current Sensing Switch Connections



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

Current Sensing Switch Specifications



Power Supply	None, self-powered																
Setpoint Range	<ul style="list-style-type: none"> Solid-core: 1-6, 6-40 & 40-175 A (adjustable) Split-core: 1.75-6, 6-40 & 40-200 A (adjustable) 																
Output Switch	Isolated solid-state switch																
Output Rating	<ul style="list-style-type: none"> 1.0 A @ 240 VAC (standard AC units) 0.15 A @ 30 VDC (standard DC & multi-pole units) 3 A @ 120 VAC (-03 option) 15 A @ 120 VAC, 10 A @ 240 VAC (-15 option) When mounted on 1ft², 930 cm² metal surface. Max 3 A in free air. 																
Off-state Leakage	<ul style="list-style-type: none"> NOAC: <10 μA NCAC: 2.5 mA AADC: <10 μA NODC: <10 μA NCDC: 1.35 mA CCDC: 0.3 mA (N.C. Terminal) 																
Response Time	2.5 sec. max.																
Time Delay	None																
Hysteresis	5% of Setpoint																
Overload	<table border="1"> <thead> <tr> <th>RANGE</th> <th>CONTINUOUS</th> <th>6 SEC.</th> <th>1 SEC.</th> </tr> </thead> <tbody> <tr> <td>• 1-6 A</td> <td>• 150 A</td> <td>• 400 A</td> <td>• 600 A</td> </tr> <tr> <td>• 6-40 A</td> <td>• 150 A</td> <td>• 500 A</td> <td>• 800 A</td> </tr> <tr> <td>• 40-175 A</td> <td>• 210 A</td> <td>• 800 A</td> <td>• 1200 A</td> </tr> </tbody> </table>	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
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 1480 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/cUL, 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)

**(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
03	3 A @ 120 VAC (-FT only)
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.