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.

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.

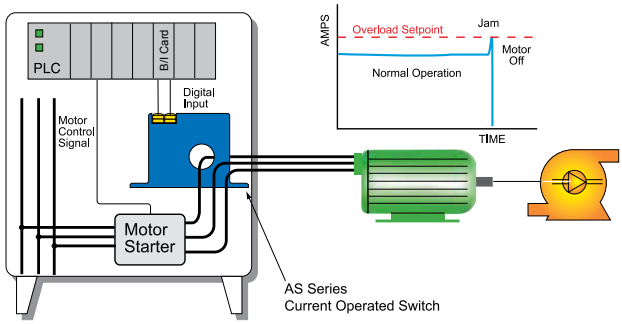
Solid- or Split-core Case
- Choose the appropriate version for each installation.

LED Indication
- Provides quick visual indiction of contact status.

Built-in Mounting Feet
- Provides the secure installation inspectors require.

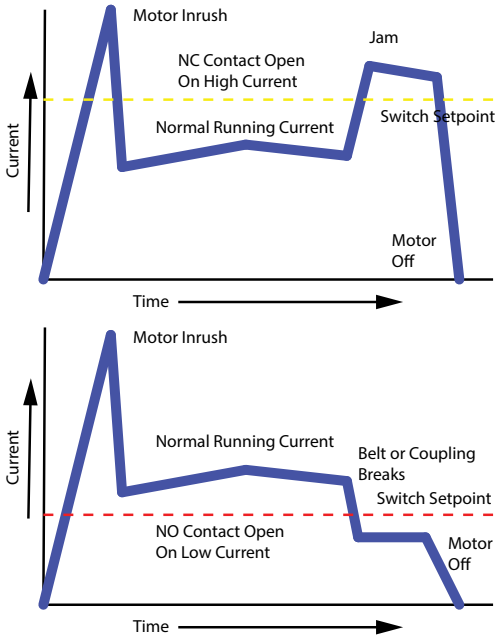
UL/cUL and CE Approved
- Accepted worldwide.

Pump Jam & Suction Loss Protection



For additional Application Examples, go to www.nktechnologies.com/applications

AS1, AS3, ASX, ASXP Series Sample Output



OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.

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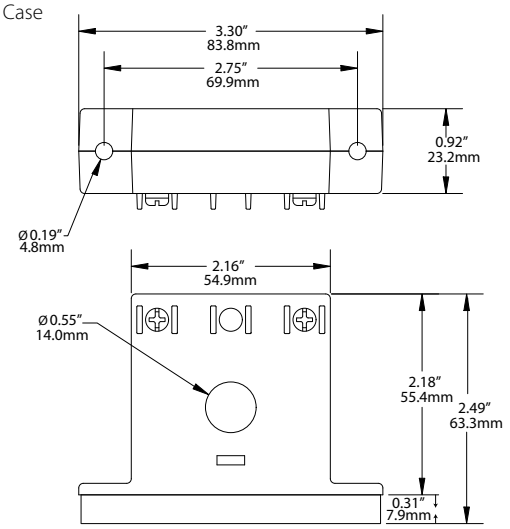
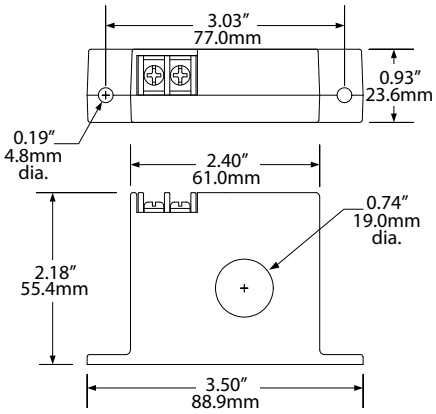
Current Sensing Switch Dimensions

FF Case

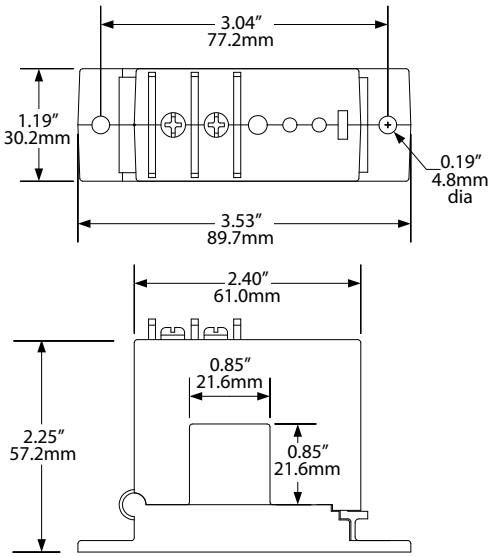


Note: The bottom 0.31″ applies to -15 option only.

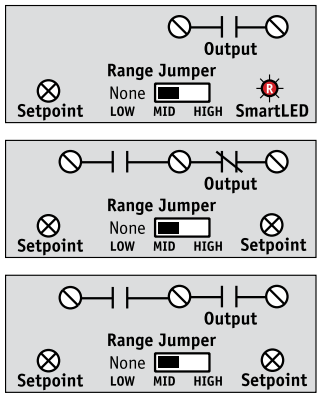
FT Case



SP Case



Current Sensing Switch Connections



Typical of NOAC and NOAC-15

NCAC and NCAC-15 Similar

Typical of AS3-CCDC

Typical of AS3-AADC

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

Current Sensing Switch Specifications

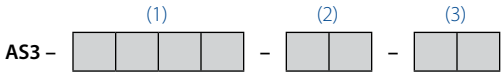
Power Supply	None, self-powered		
Setpoint Range	• Solid-core: 1–6, 6–40 & 40–175 A (adjustable) • Split-core: 1.75–6, 6–40 & 40–200 A (adjustable)		
Output Description	Isolated solid-state relay		
Output Rating	• 1.0 A @ 240 VAC (standard AC units) • 0.15 A @ 30 VDC (standard DC & multi-pole units) • 3A @ 120 VAC (-03 option) • 15 A @ 120 VAC, 10 A @ 240 VAC (-15 option)		
Off-state Leakage	• NOAC: <10 µA • NCAC: 2.5 mA • AADC: <10 µA	• NODC: <10 µA • NCDC: 1.4 mA • CCDC: 0.3 mA (N.C. Terminal)	
Response Time	2.5 sec. max.		
Time Delay	None		
Hysteresis	5%		
Overload	RANGE	6 SEC.	1 SEC.
	• 1–6 A • 6–40 A • 40–175 A	• 400 A • 500 A • 800 A	• 600 A • 800 A • 1200 A
Isolation Voltage	UL listed to 1270 VAC, tested to 5 KV		
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		
Listings	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. (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, 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, 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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