

AS1 SERIES

Current Sensing Switches

AS1 Series Current Sensing Switches combine a current transformer, signal conditioner and limit alarm into a single package for use in status monitoring or proof of operation applications. Offering an extended setpoint range of 1–150 A and universal, solid-state outputs, the self-powered AS1 can be tailored to provide accurate and dependable digital indication of overcurrent conditions across a broad range of applications. Available in solid-core case styles or in a split-core case to maximize ease of installation.



Current Sensing Switch Applications

Electronic Proof of Flow

- Current sensing switches eliminate the need for multiple pipe or duct penetrations and are more reliable than electromechanical pressure or flow switches.

Conveyors

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

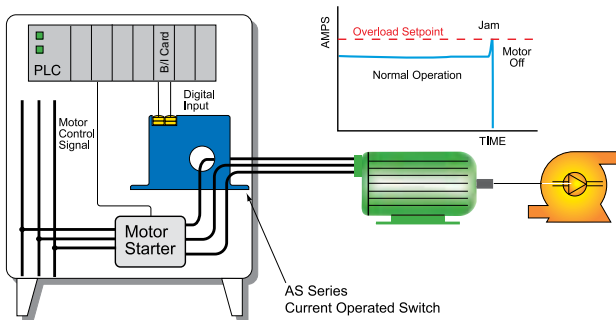
Lighting Circuits

- 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

Current Sensing Switch Features

Universal Output

- N.O. or N.C. solid-state switch for control circuits up to 240 VAC/DC.
- Compatible with most automation systems.

Self-powered

- Cuts installation and operating costs.

Easily Adjustable Setpoint

- Speeds startup.

Solid or Split-core Case

- Versions tailored for each installation.

LED Indication

- Provides quick visual indication of contact status.

Built-in Mounting Feet

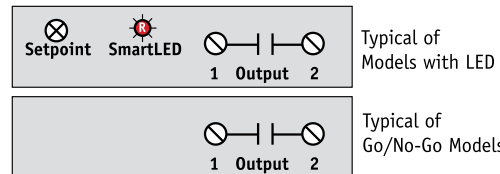
- Simple, two-screw panel mount or attach with optional DIN rail brackets.*

UL, CUL and CE Approval

- Accepted worldwide.

*For information on the DIN rail accessories kit, see page 116.

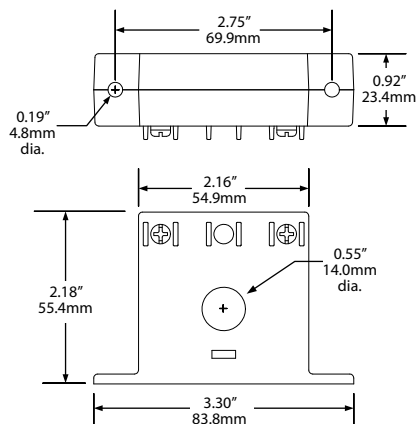
Current Sensing Switch Connections



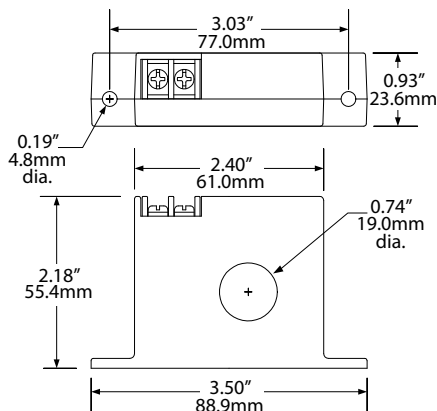
OEMs Test & Evaluation Units for OEMs
Free program expedites evaluation process. See page 1 for details.

Current Sensing Switch Dimensions

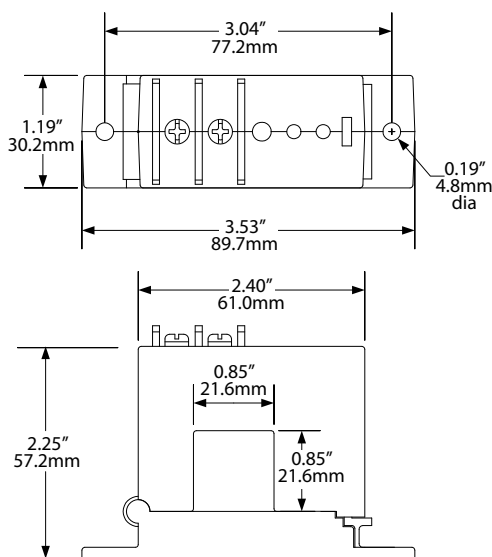
FF Case



FT Case



SP Case



Current Sensing Switch Specifications



Power Supply	None—Self-powered		
Output	Magnetically isolated solid-state switch		
Output Rating	<ul style="list-style-type: none"> • N.O. Version: 0.15 A @ 240 VAC or VDC • N.C. Version: 0.2 A @ 135 VAC or VDC • Not polarity sensitive 		
Off-state Leakage	<10 µA		
Response Time	120 ms		
Setpoint Range	<ul style="list-style-type: none"> • Solid-core: 1–150 A (adjustable) • Split-core: 1.75–150 A (adjustable) 		
Hysteresis	5% of setpoint		
Overload	MODEL	6 SEC.	1 SEC.
	• -GO (NOU)	• 500 A	• 1000 A
	• -GO (NCU)	• 400 A	• 1000 A
	• All other	• 400 A	• 1000 A
Isolation Voltage	UL listed to 1270 VAC, tested to 5000 VAC		
Frequency Range	6–100 Hz		
Sensing Aperture	<ul style="list-style-type: none"> • -FF Case: 0.55" (14.0 mm) dia. • -FT Case: 0.74" (19.0 mm) dia. • -SP Case: 0.85" (21.6 mm) sq. 		
Case	UL94 V0 Flammability Rated		
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing		
Listings	UL 508 Industrial Control Equipment (USA & Canada), CE		

Current Sensing Switches

Current Sensing Switch Ordering Information

Sample Model Number: AS1-NOU-SP
Adjustable AC current sensing switch, normally open, split-core case.



(1) Output Rating

NOU	Normally Open
NCU	Normally Closed

(2) Case Style

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

(3) Options

GO	Non-adjustable; output changes with min. current present (solid-core 0.75 A, split-core 1.25 A)
NL	No LED
Y39	Output Bypass Switch (not UL listed) – available for FT case only
	With LED (blank)

