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

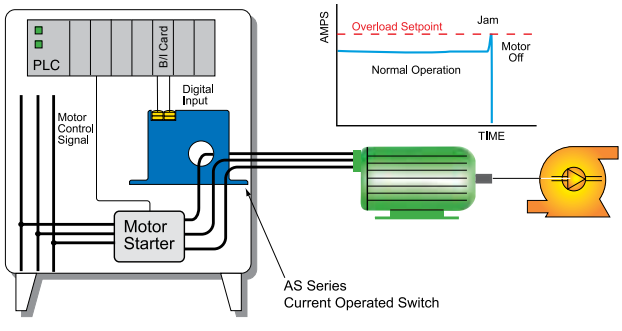
Electronic Proof of Flow
- Current sensing switches eliminate the need for multiple pipe or duct penetrations and are more reliable than electromechanical pressure or flow switches.

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

Lighting Circuits
- Proof positive that the lamp is energized.

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.

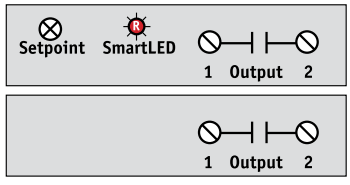
LED Indication
- Provides quick visual indication of contact status.

Built-in Mounting Feet
- Simple, two-screw panel mounting or attach with DIN rail brackets (ncluded).*

UL/cUL and CE Approved
- Accepted worldwide.

*For information on the DIN rail accessories kit, see page 140.

Current Sensing Switch Connections



Typical of Models with LED

Typical of Go/No-Go Models

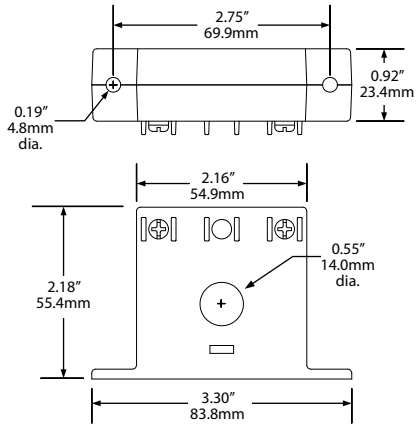
OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.

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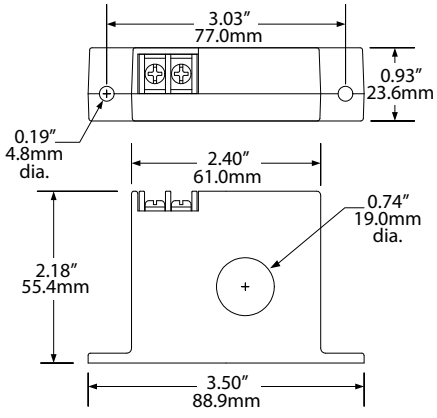
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Current Sensing Switch Dimensions

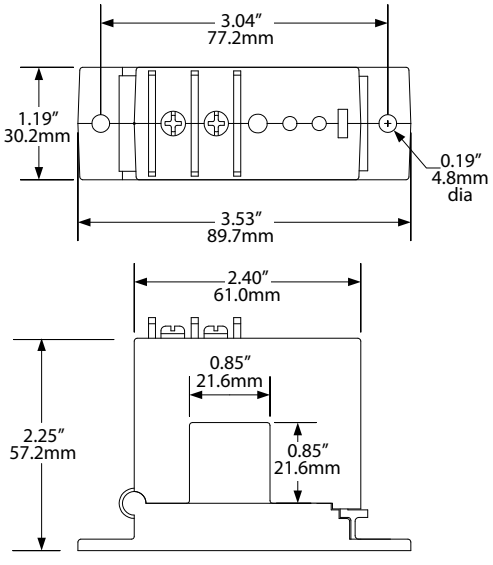
FF Case



FT Case



SP Case



Current Sensing Switch Specifications

Power Supply	None, self-powered
Setpoint Range	• Solid-core: 1–150 A (adjustable-specific models) • Split-core: 1.75–150 A (adjustable-specific models)
Output Description	Isolated solid-state relay
Output Rating	• 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 max.
Time Delay	None
Hysteresis	5%
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 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

Current Sensing Switch Ordering Information

Sample Model Number: AS1-NOU-SP

Adjustable AC current sensing switch, normally open, split-core case.

(DIN rail adapters are included)

AS1 – (1) – (2) – (3)

(1) Output Rating

NOU	Normally Open
NCU	Normally Closed

(2) Case Style

FF	Solid-core, front terminal
FT	Solid-core, top terminal
SP	Split-core

(3) Options

	Standard, with LED (blank)
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

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