ASD SERIES
Current Sensing Switches

ASD series sensors provide a limit alarm contact with the easiest adjustment method ever designed. The single turn potentiometer allows the trip point to be set before the sensor is installed, or before the monitored circuit is energized. The LED display provides a quick visual indication of where the contact changes.



Features a single turn potentiometer and LED display
US Patent 9747776

Current Sensing Switch Applications

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

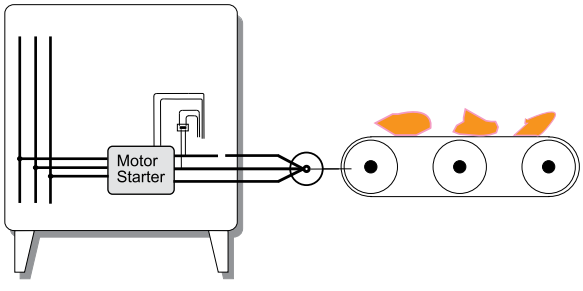
Conveyors
- Detects jams and overloads.
- Interlocks multiple conveyor sections.

Pump Control
- Output contact is adjusted so it is closed during normal operation, opening if the pump runs dry or there is a loss of head pressure for any reason.

Cooling Towers
- Monitor for overcurrent conditions caused by open duct access doors or undercurrent from a broken drive belt or coupling.

Conveyor Protection

If the conveyor jams, the solid-state contact opens to stop the infeed or drive motor.



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

Current Sensing Switch Features

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

External Powered
- Allows for higher accuracy.

Easily Adjustable and Precise Setpoint
- Speeds startup.
- Improves the safety by allowing the trip point adjustment with no power through the sensing window.

LED Display
- Provides quick visual indication of where the contact changes. When current exceeds the setpoint, the display flashes on and off.
- Easiest and most accurate setpoint adjustment available.

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

UL/cUL and CE Approved
- Accepted worldwide.

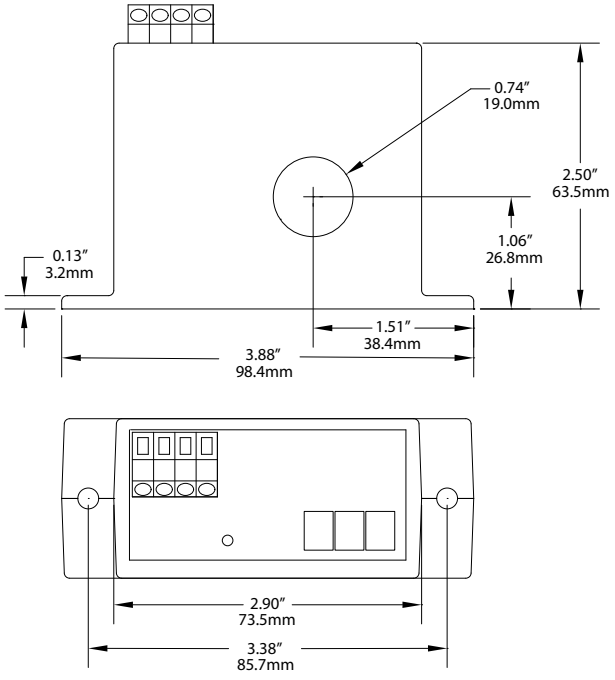
*For information on the DIN rail accessories kit, see page 140.

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

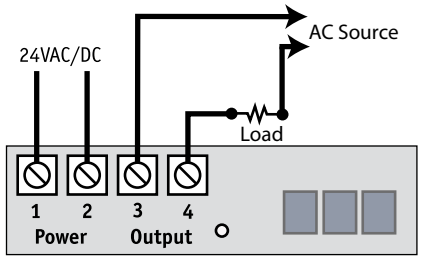
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Current Sensing Switch Dimensions



Current Sensing Switch Connections



Display shows trip point in amps
so 15 A displays 015.

Current Sensing Switch Specifications

Power Supply	24 VAC/DC (18–28 V)
Power Consumption	70 mA max.
Setpoint Range	• ASD1: 1–50 A (adjustable) • ASD2: 4–200 A (adjustable)
Output Description	Isolated solid-state relay
Output Rating	Max.: 1.0 A @ 240 VAC
Off-state Leakage	• <10 µA normally open • 2.5 mA normally closed
Response Time	120 ms max.
Time Delay	None
Hysteresis	5%
Isolation Voltage	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: ASD1-NOAC-24U-FL
Adjustable AC current operated switch, normally open, solid-core case.
(DIN rail adapters are included)

	(1)		(2)					(3)				(4)	
ASD		–					-	**2**	**4**	**U**	–	**F**	**L**

(1) Range

1	1–50 A switch adjustment
2	4–200 A switch adjustment

(2) Output Contact

NOAC	Normally Open, closes on current rise, AC control only
NCAC	Normally Closed, opens on current rise, AC control only

(3) Power Supply

24U	24 VAC or DC

(4) Case Style

FL	Solid-core

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