ASL SERIES
AC Current Sensing Switches

The ASL Series Current Sensing Switches provide a current operated solid-state contact powered from the monitored circuit. The trip point adjustment uses a single turn potentiometer. This means the installer can set the point where the output changes state when the monitored circuit is not energized, by turning the adjustment arrow to the current magnitude needed, and install the sensor over the conductor. Proper installation couldn't be easier.

Current Sensing Switch Applications

AC Motor Loads

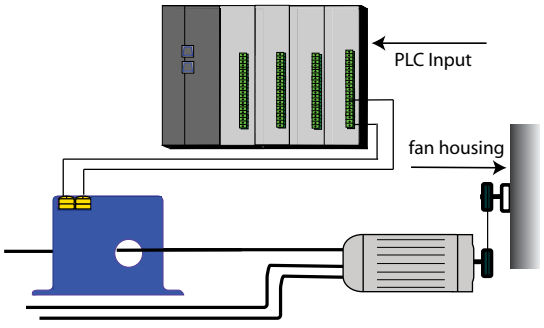
- Set a normally open contact over the normal running current level and it will open if the drive belt breaks or comes off the sheaves.
- Set a normally closed contact below the normal run current level and it will open on over loaded conditions.
- Monitor up to 150 A loads.

Critical Lighting Loads

- Monitor security lighting and water navigational indicators.

Heating Loads

- Receive independent verification that an element is working properly.
- Monitor drying and curing processes remotely.



Motor current causes the solid-state contact to close, and if the coupling or drive belt breaks the current falls and the sensor output opens again.

Current Sensing Switch Features

Easily Established Contact Actuation Point

- Patented potentiometer setpoint selection (patent pending).
- Trip point indicated on the labeling.
- Trip point can be set with no load present, adding a large measure of safety.
- Two-second delay before contact action upon initial energization allows the output to ignore motor inrush current.

Isolation

- Output is magnetically isolated from the input for safety.
- Eliminates insertion losses, no added burden.

Solid-state Reliability

- No moving components for switching.
- No need for periodic maintenance or calibration.

Panel Mounted Solid- or Split-Core Case

- Split-core housing allows installation without disturbing existing wiring and can be mounted in any position. Either case can be attached to a panel, hung on the conductor or on a DIN rail using adaptors (DIN-2 accessory).*
- Solid or split-core housings provide windows large enough for 150 A loads, non-contact design provides complete isolation between primary circuit and control circuitry.

No External Power Needed

- Sensor is powered from the monitored AC circuit.
- Choose normally open (closing on current increase) or normally closed (opening on current increase).
- Fast action contact reacts quicker than RTD, thermocouples, or bimetallic thermal elements.

*For information on the DIN rail accessories kit, see page 111.

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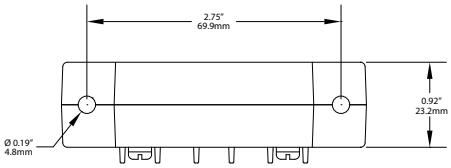
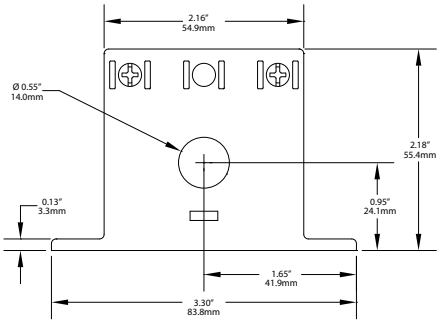
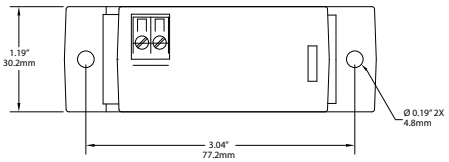
Current Sensing Switch Dimensions

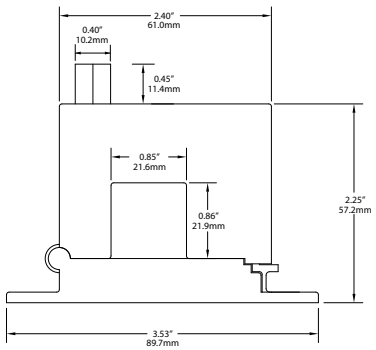
FF Case



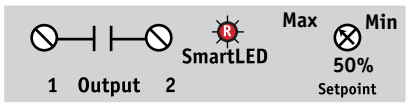


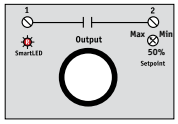
SP Case





Current Sensing Switch Connections





Current Sensing Switch Output Type

Normally open universal AC or DC solid-state contact, 150 mA to 240 V (maximum load across output contact) or normally closed universal AC or DC solid-state contact, 200 mA to 135 V (maximum load across output contact).

Notes:
Zinc plated screw terminals solid-core.
Deadfront enclosed terminals split-core.
12–22 AWG solid or stranded.
Not polarity sensitive.

Current Sensing Switch Specifications

Output Type	Solid-state universal contact (AC/DC)
Accuracy	±1%
Repeatability	1.0% FS
Response Time	100 ms (to 90% step change)
Frequency Range	AC 10–100 Hz
Power Supply	Self-powered from the monitored circuit
Relay Capacity	150 mA up to 240 VAC/DC NO 200 mA up to 135 VAC/DC NC
Linearity	1.00% FS
Current Ranges	Ranges from 1–150 A
Sensing Aperture	FF Case: 0.55" (19 mm) diameter SP Case: 0.85" (21.6 mm) diameter
Case	UL94 V0 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: ASL1-NOU-FF
Solid-core AC current sensing switch with single turn setpoint adjustment, Smart LED standard.

(1)	(2)	(3)
ASL □ –	□□□ –	□□

(1) Full Scale Range

1	1–10 A (solid-core) 2–20 A (split-core)
2	10–50 A (solid-core) 20–50 A (split-core)
3	50–100 A
4	100–150 A

(2) Output Type

NOU	Normally Open
NCU	Normally Closed

(3) Case Style

FF	Solid-core, Front Terminals
SP	Split-core