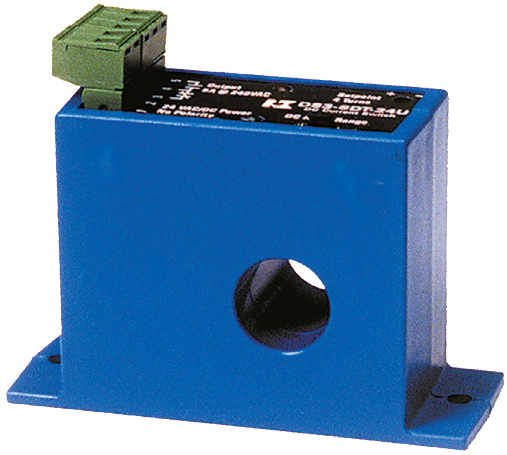
DS3 SERIES
Current Sensing Switches

DS3 Series Current Sensing Switches combine a Hall effect sensor, signal conditioner and a limit alarm into a single package. The DS3 Series offers three jumper-selected current input ranges and frequency response from DC to 400 Hz. Available in a solid-core case with choice of relay or a universal solid-state output.



Current Sensing Switch Applications

Welders and Platers
- Instant indication of equipment status.

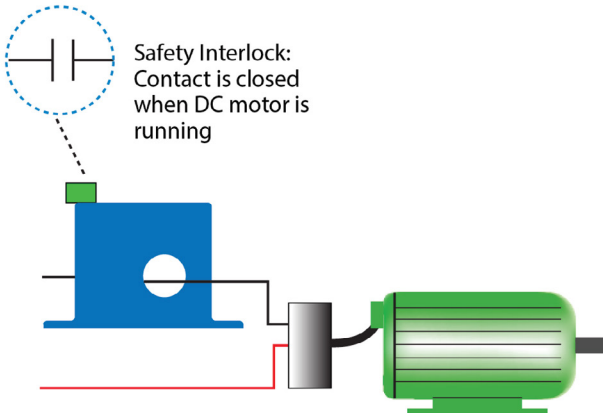
Large Drive Motors
- Provides enhanced field loss protection.

Power Supplies
- Signals overcurrent before equipment fails.

Machine Operation
- Instant status of motors, lamps and other loads.

Telecom Sites
- Monitors battery output.

Failure Detection



For additional Application Examples,
www.mod-tronic.com

Current Sensing Switch Features

Compact, One-piece Design
- Fits in easily amongst motor starters and power supplies in crowded control panels.

Flexible
- Select one of three input ranges and then fine tune within selected range using an 11 turn potentiometer

Input Isolation
- Safer than shunt/relay combinations.

Output Installation
- Isolated output greatly simplifies wiring.

Pluggable Terminals
- Speed installation.

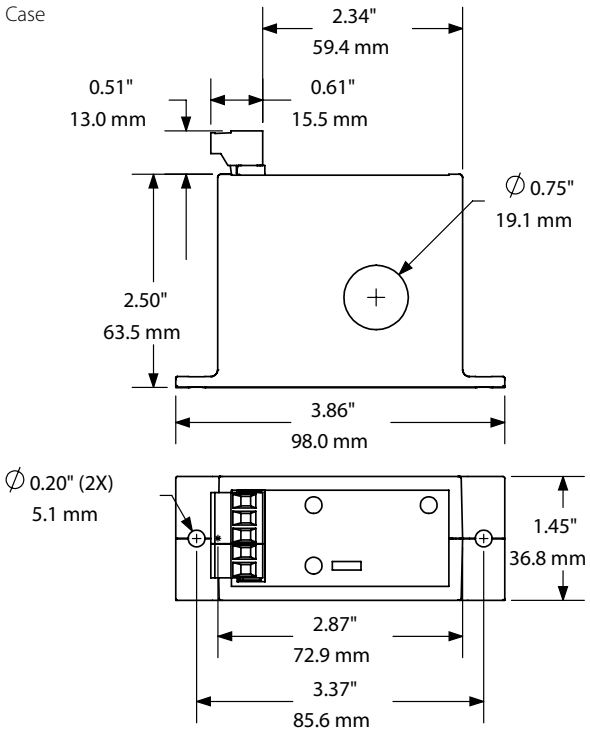
Tough
- Designed to handle a wide range of temperatures found in industrial environments.

Adaptive Hysteresis
- Hysteresis is 5% of setpoint, allowing closer control than fixed hysteresis switches.

Panel Mount (or DIN Rail)
- Attach directly to panel with screws or use included DIN rail adapter.

UL/cUL Listed and CE Certified
- Accepted worldwide.

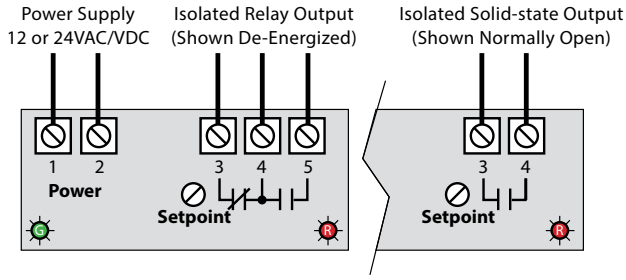
Current Sensing Switch Dimensions



Current Sensing Switch Specifications

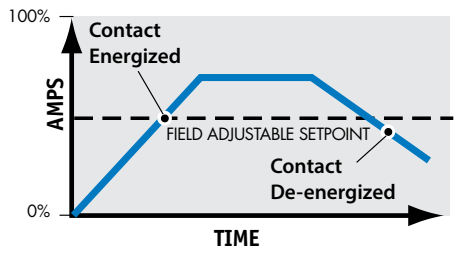
Power Supply	24U = 15-28 VAC/VDC 12U = 11.4-20 VAC/VDC
Power Consumption	<4 VA
Setpoint Range	2–20, 10–50 and 20–100 A DC (adjustable) (2–14, 10–35, 20–70 A AC) (adjustable) 11 turn potentiometer
Output Switch	Isolated solid-state (NOU) or relay (SDT) contacts
Output Rating	Solid-state (N.O. only): 0.15 A @ 240 VAC/VDC SPDT Relay: 5.0 A @ 250 VAC 5.0 A @ 30 VDC Resistive
Off-state Leakage	<10 µA (solid-state), none (relay)
Response Time	80 ms max. (On delay) 60 ms max. (Off delay)
Hysteresis	5% of setpoint
Isolation Voltage	2200 VAC
Frequency Range	DC to 400 Hz
Case	UL94 V-0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings	UL Listed to UL 508 (E129625),CE

Current Sensing Switch Connections



Notes:
Pressure plate screw terminals.
30-12 AWG solid or stranded.
Field-adjustable setpoint.

DS3 Series Sample Output



Current Sensing Switch Ordering Information

Sample Model Number: DS3-SDT-24U
DC current sensing switch with SPDT relay contacts and 24 VAC/VDC power supply. (DIN rail adapters are included)

	(1)		(2)			(3)		
DS	3	–				–		

(1) Setpoint AC Range

3	2–20, 10–50 and 20–100 A, jumper-selectable (2–14, 10–35, 20–70 A AC)

(2) Output Type

SDT	SPDT Relay (Form C)
NOU	Solid-state N.O. AC/DC

(3) Power Supply

24U	24 VAC/VDC
12U	12 VAC/VDC