

DS3 SERIES

Current Operated Switches

DS3 Series Current Operated 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 400Hz. Available in a solid-core case with choice of relay or a universal solid-state output.



Applications

Welders and Platers

- Instant indication of equipment status.

Large Drive Motors

- Provides enhanced field loss protection.

Power Supplies

- Signals over-current before equipment fails.

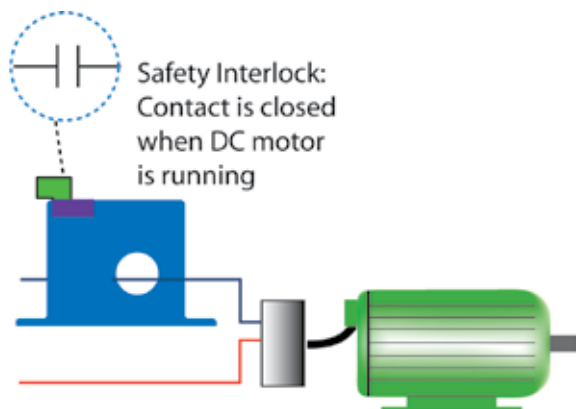
Machine Operation

- Instant status of motors, lamps and other loads.

Telecom Sites

- Monitors battery output.

Failure Detection



- For additional Sample Output/Power Supply or Application Illustrations, see Supplemental Illustrations on page A80.

Features

Compact, One-piece Design

- Fits in easily amongst motor starters and power supplies in crowded control panels.

Input Isolation

- Safer than shunt/relay combinations.

Output Installation

- Isolated output greatly simplifies wiring.

Tough

- Designed to handle harsh industrial environments.

Adaptive Hysteresis

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

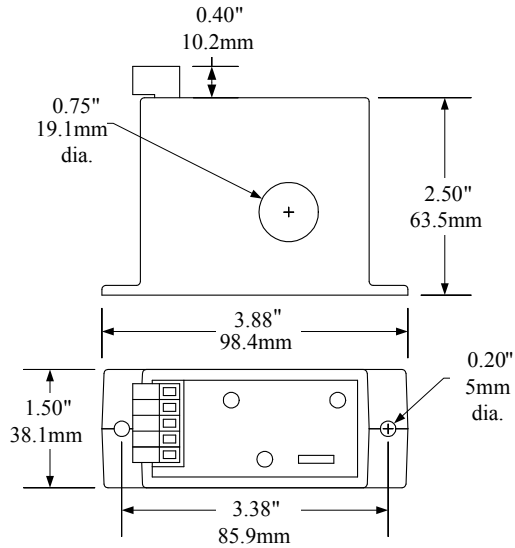
Built-in Mounting Feet

- Simple, two-screw installation allows for secure mounting.

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

Dimensions

Case

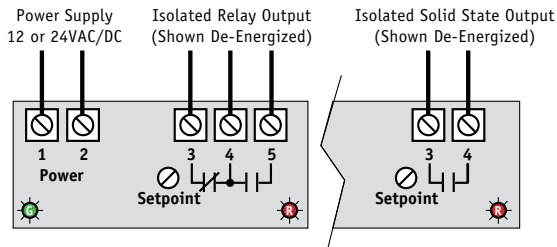


Specifications



Output	Isolated Dry Contact
Output Rating	<ul style="list-style-type: none"> Solid State: 0.15A @ 240VAC or VDC (N.O. Only) Relays: 5.0A @ 240VAC, 5.0A @ 30VDC (SPDT)
Off State Leakage	<10µA
Response Time	<ul style="list-style-type: none"> 100ms (10% above setpoint) 20ms (100% above setpoint)
Setpoint Range	4–20, 10–50 and 20–100A (DC) jumper selectable (derate by $\sqrt{2}$ for AC)
Hysteresis	5% of Setpoint
Isolation Voltage	3kV
Frequency Range	DC to 400Hz
Sensing Aperture	0.75" (19.1mm) dia.
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

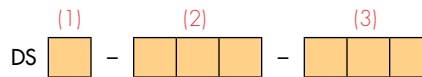
Connections



Notes:
 Pressure plate screw terminals.
 12-22 AWG solid or stranded.
 Field adjustable setpoint.

Ordering Information

Sample Model Number: DS3-SDT-24U
 DS current operated switch with SPDT relay contacts and 24VAC/DC power supply.



(1) Setpoint Range

3	4–20, 10–50 and 20–100A, Jumper Selectable
C	Custom (consult factory)

(2) Output Type

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

(3) Power Supply

24U	+24VAC/DC
12U	+12VAC/DC

