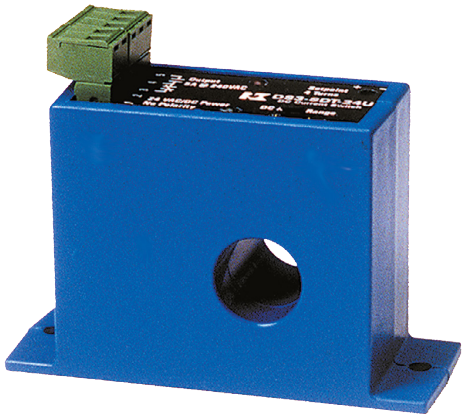
**DS3 SERIES**
393000109 Rev 3

# 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.

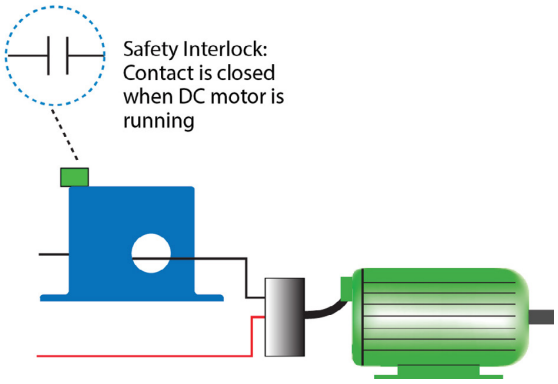
**Large Drive Motors**
- Provides enhanced field loss protection.

**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,
go to www.nktechnologies.com/applications

### 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.

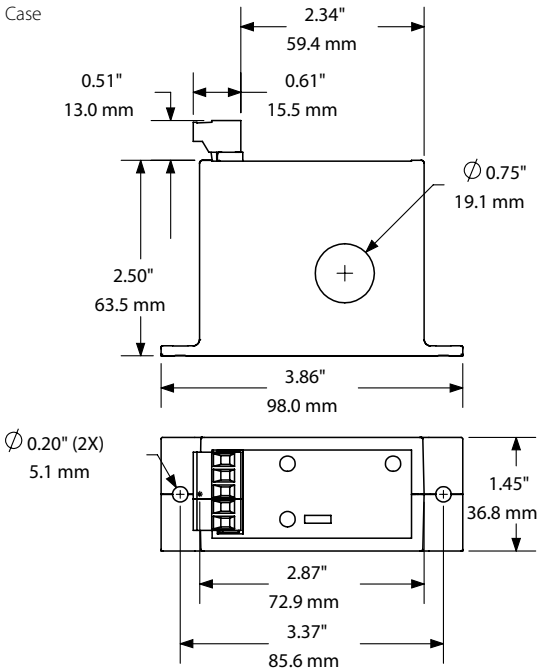
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원문: NK Technologies DS3 시리즈 카탈로그(영문) · 제조사 원문 자료입니다. 사양은 제조사 사정에 따라 변경될 수 있습니다.

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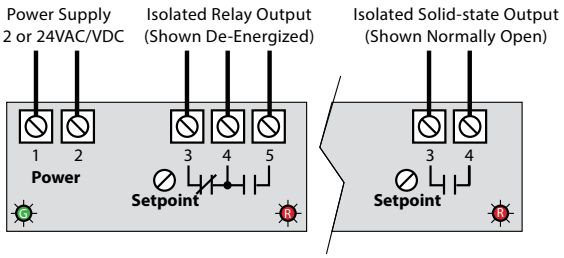
## Current Sensing Switch Dimensions




## Current Sensing Switch Specifications

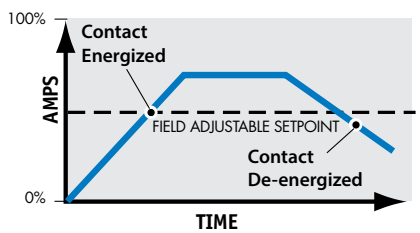
| | |
|---|---|
| **Power Supply** | 24U = 15-28 VAC/VDC<br>12U = 11.4-20 VAC/VDC |
| **Power Consumption** | <4 VA |
| **Setpoint Range** | 2–20, 10–50 and 20–100 A DC (adjustable)<br>(2–14, 10–35, 20–70 A AC) (adjustable)<br>11 turn potentiometer |
| **Output Switch** | Isolated solid-state (NOU) or relay (SDT) contacts |
| **Output Rating** | Solid-state (N.O. only):<br>0.15 A @ 240 VAC/VDC<br>SPDT Relay:<br>5.0 A @ 250 VAC<br>5.0 A @ 30 VDC Resistive |
| **Off-state Leakage** | <10 µA (solid-state), none (relay) |
| **Response Time** | 80 ms max. (On delay)<br>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)<br>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<br>(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 |

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