A Smaller, Simple-to-Use Current Switch for Detecting Even Low DC Current Levels

The DS1 was designed in response to customers’ requests for a smaller, simpler sensor to monitor DC current levels:

A customer who manufactures pressure washers needed a contact that closed when a heating circuit was operating, allowing the washer to operate only when the water was hot. Another wanted a remote indicating light to show when a load was energized. Both systems are used on mobile equipment, powered by 12 or 24 volt battery systems.

Safe-T-Rack uses the DS3 series switch as an interlock with their control system. They manufacture a high voltage circuit breaker draw out mechanisms which allow for remote control, so the operator can be a safe distance from the breaker to reduce any chance of arc flash.

The DS1 Series can also be used to provide independent indication of a DC load, including ventilating fans on passenger train cars, allowing the system controller to know absolutely that the air handling system is working.

DC Current Switch Applications

- Safety Interlock
  Provides a non-intrusive method to keep personnel safe.
- Alarm Contact
  Indicates when a load is operating or when it is de-energized.
- PV Systems
  Detect leakage by monitoring the earth bond conductor.
- Lighting
  Turn a lighting circuit on when a load is energized.
- Equipment
  Provides instant indication of status.

DS1 DC Current Sensor in a Compact One-Piece Design

The DS1 DC current switch is smaller than other DC current sensors and simpler to use. It is non-adjustable so the output closes when there is current and opens with there is none. It uses the same circuit voltage to power the sensor as the circuit being controlled so it is easier to install than other sensors.

The DS1 current sensor can be powered by any DC voltage between 10 and 28 volts, and the solid-state “contact” closes with a minimum of 0.75 amps DC through the sensing window. The contact can control a DC load up to one amp, up to 30 VDC.