

SSRMON2 Heater Load & Solid State Relay Monitor



- Monitors the heater load and solid-state relay for fault conditions
- Detects open load, shorted SSR output, loss of AC mains and DC input/control voltage
- Compact design mounts directly to most industry-standard solid-state relays
- LED output indicator
- 5-26Vdc control input
- 100-600Vac, 50/60Hz load-voltage range
- 48Vdc / 50mA alarm output
- 4000Vrms isolation voltage
- Requires an external 10-26Vdc power supply

Product Description:

The SSRMON2 monitors the condition of a solid state relay and its load circuit. The SSRMON2 mounts directly on top of the input and output terminals of most industry-standard solid state relays and monitors the input signal and output voltage to detect a shorted SSR, open heater/load (*see notes), loss of AC mains supply and DC input power.

Ordering Code: SSRMON2*

* HBCcontrols can preassemble the SSRMON2 onto a wide range of in-stock solid state relays. Please contact us for part numbers and additional information

Input Specifications

Part Number:	SSRMON2
Power Supply Voltage Range (Vdc)	10-26
Control Input (Vdc)	5-26
Control Input Impedance (Ohms)	4,000
Load Sense Input Voltage Range (Vac; 50/60Hz)	100-600
Input-to-Line Isolation Voltage (Vrms, 25°C for 1 second)	4,000
Maximum Off-State Blocking Voltage (Vpk for 1 minute)	1,200
Maximum Off-State Leakage Current (RMS)	3mA
Response Time	200mS (with control input off) 750mS from last off-cycle (1 sec cycle time 50% duty cycle) 2.5Sec from last off-cycle (1 second cycle time 95% duty cycle) Up-to 15 seconds when using the Interrupted Input

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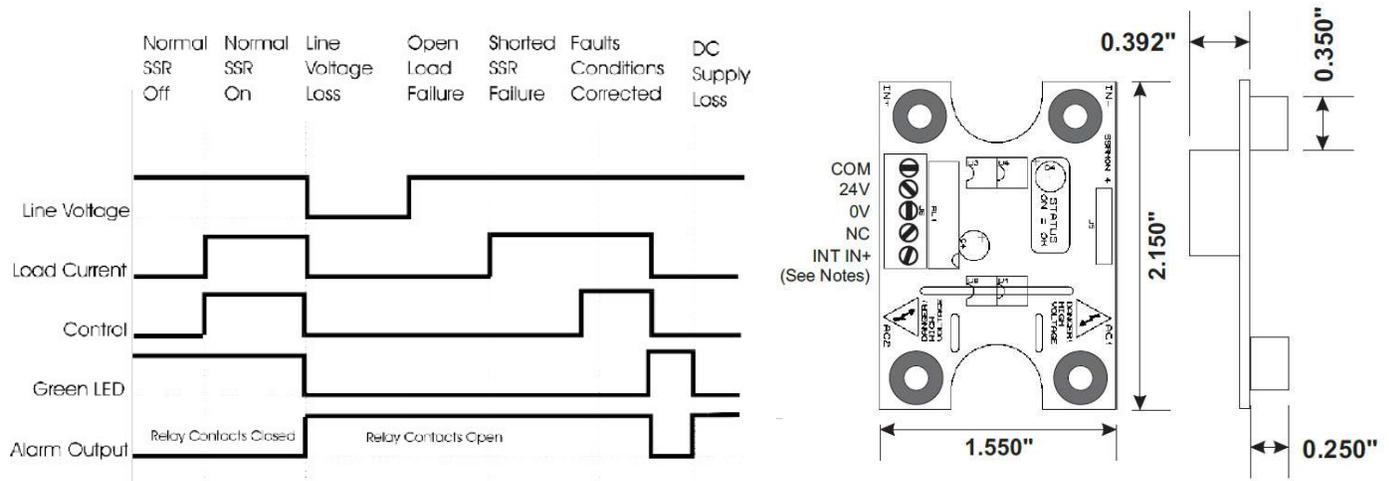
Alarm Output Specifications

Relay contact maximum rating = 0.05A / 48Vdc (resistive loads only)
 Contacts open upon fault or loss of power.
 Contacts are closed when no faults are present.

General Specifications

Description	Specification
Operating Temperature Range	-0 to +50 °C
Storage Temperature Range	-40 to +100 °C

Dimensions & Signals



Continuous Mode: The control input is wired to the standard IN- and IN+ of the SSR input terminals for continuous mode operation.

Interrupted Mode: The control input is wired to the IN- of the SSR and the INT IN+ of the SSRMON. Interrupted mode provides a brief off signal of 150mS every 15 seconds to test the input to output logic of the relay.

*Notes: To reliably detect an open load, the load current must drop below 60uA when the load is opened. Any residual leakage in the wiring or load break may cause the SSRMON to not be able to detect the open load condition. Using the SSRMON with an SSR that has an on-board snubber will improve the reliability of the detection because it will present a lower impedance to the load circuit and raise the 60uA detection threshold to a higher value, typically around 300uA. If that threshold is not high enough, a power resistor or external R-C snubber (0.47uF/100R) may be added in parallel with the SSR output. The resistor or snubber should be chosen so that when the load is open, the voltage across the SSR drops below 20VAC.