



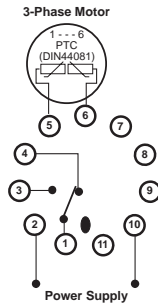
Thermistor Motor Protection Relay

Auto Reset / Manual Reset

SC 510 SC 511



WIRING EXAMPLE (requires optional S3-B base)



Application Examples

- Detects overheating of equipment such as motors, alternators and transformers, using a PTC sensor as a measuring device.

Features

- Interfaces with PTC Sensors as per DIN 44081
- Fault latching feature on SC511 - resets via pushbutton or external contact
- Test fault simulation button on SC511

ORDERING CODE

TYPE	SUPPLY VOLTAGE	AC/DC	RELAY CONTACTS
SC511	240	AC	S

Technical Specification

Power Supply:

AC: 12, 24, 110, 240 (ie. 220-240), 400, 415, 525V ±15%
 Isolation (sensor input to power supply): 2kV
 DC: 10-30V, 48, 60, 110V ± 15%
 Isolation (sensor input to power supply): no galvanic isolation.

Sensor Input:

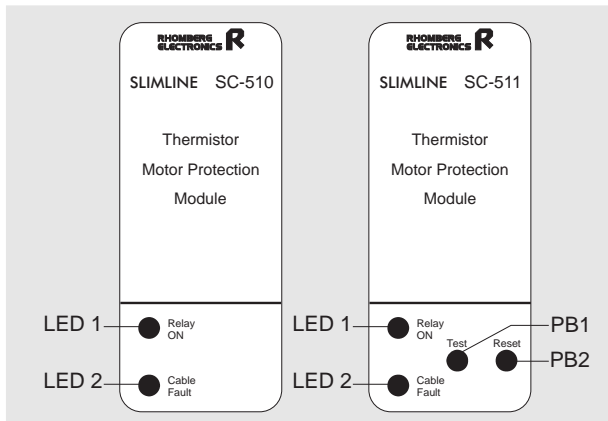
Type: PTC Sensor as per DIN 44081
 Input impedance: 2200 ohms

Open circuit voltage: ≤ 2.5V Short circuit current: 1mA (max)

Measuring Characteristics of the sensor:

Maximum cold resistance of TC sensor (ie. 1 to 6 sensors can be connected): 1500 ohms
 Triggering threshold: 3100 ohms ± 10%
 Recovery threshold: 1650 ohms ± 10%
 Short-circuit detection: < 20 ohms Open-circuit detection: 10k ± 10%
 Repetitive accuracy: 0.5% Response time: 50 msec

Description of Controls



LED 1: The LED marked "Relay ON" illuminates when the relay is energised.

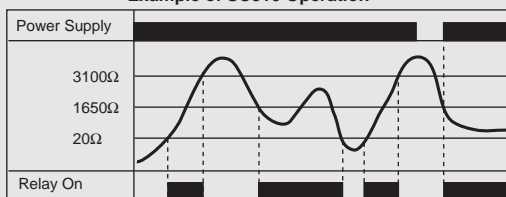
LED 2: The LED marked "Cable Fault" illuminates when:
 - ≤20 ohms occurs at the sensor input, or
 - an open circuit occurs on the sensor input

PB1: The push-button marked "Test" may be used to simulate a fault condition.

PB2: The push-button marked "Reset" may be used to restore the relay to normal operation once it has triggered due to some fault condition when using the latching feature.

Operational Diagrams

Example of SC510 Operation



Example of SC511 Operation

