

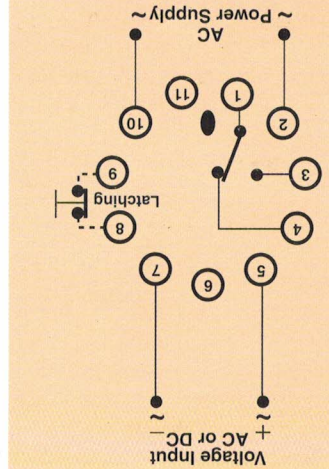


Wiring and Connection

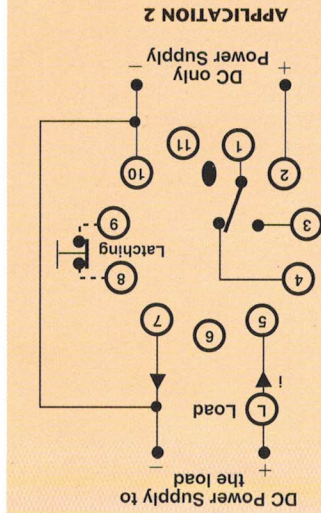
Power Supply: to be connected to pin 2 (phase/positive) and pin 10 (neutral/negative).

Relay Contacts: to be connected:
 1 + 3 normally open
 1 + 4 normally closed.

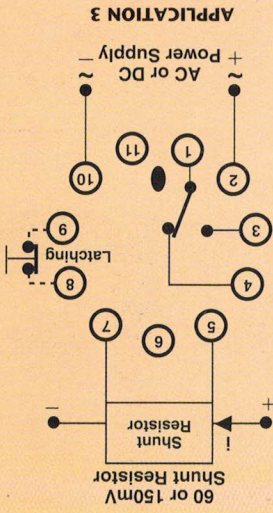
Latching: Latching to be enabled by interconnecting pin 8 and pin 9 (eg. push-to-open reset button).



Application 1
 Direct In-Line Sensing (NB: NOT suitable for current loop). For DC monitoring, the polarity must be observed (pin 5 positive, pin 7 negative).

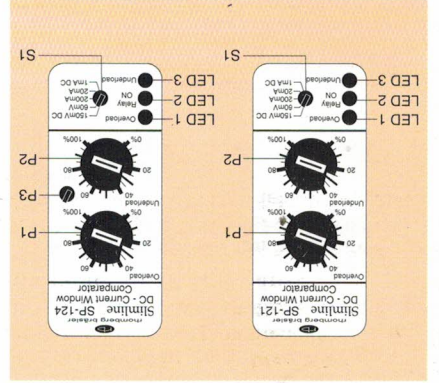


Application 2
 DC Current Sensing: DC power supply on pin 1 and pin 10. In this mode, the DC power supply and current sensing input share a common negative connection, since no galvanic isolation is provided. Therefore, the current input, pin 5 and pin 7, has to be connected in series between the negative lead and the load.
 NB: Pin 10 and pin 7 are to be externally linked. DO NOT CONNECT THE LOAD BETWEEN PIN 7 AND PIN 10.



Application 3
 DC Current Sensing with External Shunt: Connect the shunt between pin 5 (+) and pin 7 (-) observing the correct polarity. For extended wiring between the shunt and the module, screened wire is recommended to prevent induction of hum or noise on the sensing inputs. The screen should be connected to pin 7 or earth.
 Note: For DC supply on pin 2 and pin 10, pin 7 and pin 10 are to be externally linked (refer to application 2).

Description of Controls



P1: The **Overload Threshold** is adjusted on P1. Maximum setting of 100% corresponds with a current level set on S1.
P2: The **Underload Threshold** is adjusted on P2. Maximum setting of 100% corresponds with a current level set on S1.
P3: The **Adjustable response delay** from 1 to 10 seconds. threshold must not overlap. Note: P2 should be set to a level below that of P1, ie. the overload threshold and the underload threshold must not overlap.

S1: The **Input Range** is set on S1. The red LED marked "Overload" will illuminate whenever the current exceeds the set overload threshold.
LED 2: The green LED marked "Relay ON" will illuminate when the relay is energised.
LED 3: The red LED marked "Underload" will illuminate whenever the current drops below the set underload threshold.

Technical Specification

Power Supply:
 AC: Supply voltage: 12, 24, 110, 230, 400, 415, 525V ±15%
 Isolation (current input to power supply): 2kV
 Power consumption: 3VA (approx.)
 6VA for 415, 525V (approx.)
 1mA
 20mA
 200mA
 800 mA
 350mA
 60mA
 3 Ohm
 0,7 Ohm
 10k
 10k
 10k
 150mV
 60mV
 50V
 50V
 50V
 50V
 5mV

Range	Input Impedance	Maximum Input
1mA	60 Ohm	350mA
20mA	3 Ohm	800 mA
200mA	0,7 Ohm	350mA
800 mA	0,7 Ohm	350mA
350mA	3 Ohm	800 mA
60mA	60 Ohm	350mA
3 Ohm	3 Ohm	800 mA
0,7 Ohm	0,7 Ohm	350mA
10k	10k	150mV
10k	10k	60mV
150mV	60mV	50V
60mV	50V	50V
50V	50V	50V
50V	50V	50V
5mV	5mV	50V

Current Input:
 Repetitive accuracy: 1%
 Hysteresis: 2% Fixed (relative to sensitivity setting).
Response:
 Start-up delay: Approximately 10 seconds standard (1 to 15 seconds also possible on special order)
 SP-121 - 1 second (approx)
 SP-124 - adjustable from 1 to 10 seconds (other ranges on special order).