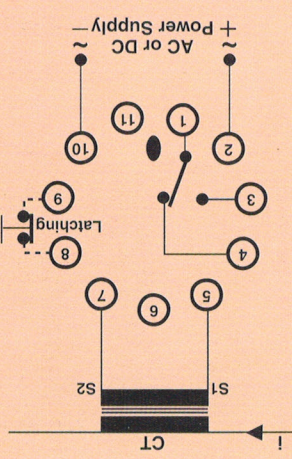
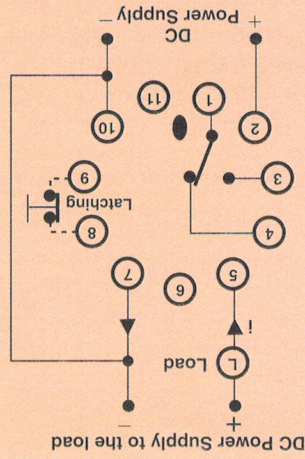
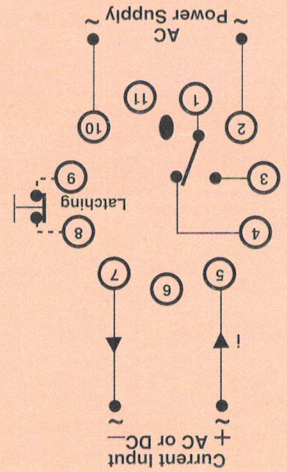


## Wiring and Connection

**Power Supply:** to be connected to pin 2 (phase/positive) and pin 7 (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 (e.g. push-to-open reset button)

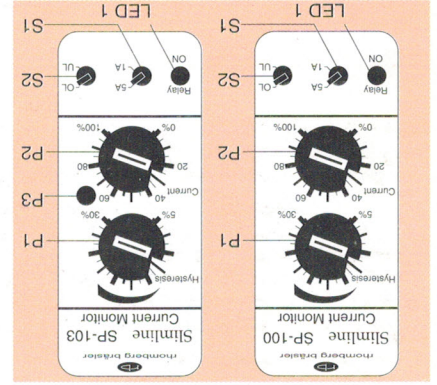


**Application 1**  
**Direct In-Line Sensing:** (NB: NOT suitable for current loop. For DC monitoring, the polarity must be observed (pin 5 positive, pin 7 negative).  
 DC supply on pin 2 and pin 10.) Connect the sensing input pin 5 and pin 7 in series with the current loop. For DC monitoring, the polarity must be observed (pin 5 positive, pin 7 negative).

**Application 2**  
**DC Current Sensing:** DC power supply on pin 2 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**  
**AC Current Sensing with a Current Transformer:** Connect the secondary terminals of the current transformer (S1 and S2) to the current input pin 5 and pin 7. Other devices, such as ammeter, may be connected in series with the current loop, provided the VA rating of the CT is not exceeded.  
 NB: Do not unplug the unit while the current circuit of the current loop and may damage the current transformer (see "CT protection" in the general section of the catalogue on Pg 69).

## Description of Controls



- P1:** Hysteresis i.e. the difference between the tripping point and the recovery point is set between 5% and 30% on P1. (Hysteresis relates to the set-point of P2)
- P2:** The Current Threshold (tripping point) is adjusted on P2. Maximum setting of 100% corresponds with a current level of 1A or 5A, (depending on the setting of S1).
- P3:** Adjustable Response Delay from 0,1 to 10 seconds (SP-103).
- S1:** The Current Range is set for 1A or 5A applications on S1.
- LED 1:** The LED illuminates to indicate that the relay is energised. The LED will be off if the unit registers a fault condition (overload/underload) or the power supply to the unit is interrupted.
- S2:** Function Selection is provided by S2. If set to "OL" the unit operates as an overload detector. If set to "UL" the unit operates as an underload (minimum load) detector.

## Technical Specification

- Power Supply:** AC: Supply voltage: 12, 24, 110, 230, 400, 415, 525V ±15%  
 DC: Supply voltage: 10-30V, 48, 60, 110V ± 15%  
 Isolation: no galvanic isolation  
 Power consumption: 10-30VA (10-30V), 30mA for 48V and higher
- Current Input:** Trip point: 0,1 to 1A or 0,5 to 5A AC/DC (adjustable)
- Response:** Response delay: approximately 10 seconds, standard. (0,1 to 15 seconds also possible on special order)  
 Start-up delay: SP-100 - 1 second.  
 SP-103 - adjustable from 0,1 to 10 seconds (other ranges on special order)
- Repetitive accuracy:** 1%  
**Hysteresis:** 5% to 30% (adjustable)  
**Peak short-term over-current (10 seconds):** 20A  
**Maximum input current (continuous):** 6A  
**Current input impedance:** 50 milliohms.