

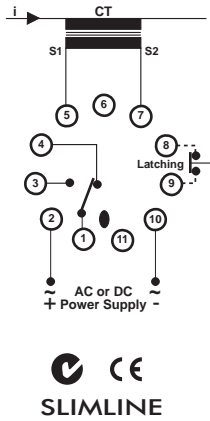


Single Phase Current Monitoring Relay - Current Window Comparator 1A / 5A AC(rms)

SP 123



WIRING EXAMPLE (requires optional S3-B base)



Application Examples

- Monitoring submersible pumps for clogging or running dry.
- Monitoring conveyor belts for tearing or overloading.
- Monitoring jamming or loss of hydraulic fluid in ship steering motors.
- Monitoring jamming or shaft breaking on screw conveyors.
- Overload & underload detection on generator sets
- Detection of mixture densities on a variety of industrial mixers.
- Detection of jammed dampers in either closed or open positions on fans.

ORDERING CODE

TYPE	SUPPLY VOLTAGE	AC/DC	RELAY CONTACTS
SP123	240	AC	S

Note: SP123 supersedes SP120

Technical Specification

Power Supply:

AC: 12, 24, 110, 240 (ie. 220-240), 400, 415, 525V $\pm 15\%$
DC: 10-30V, 48, 60, 110V $\pm 15\%$ (no galvanic isolation)

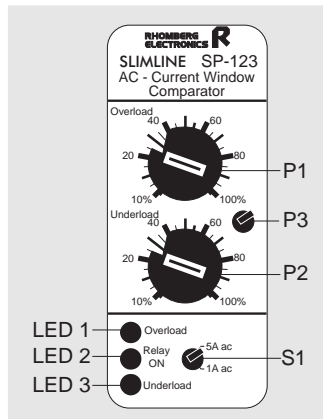
Response:

Start-up delay: approximately 10 seconds, standard.
Time delay on trip: adjustable from 0,1 to 10 seconds.

Current Input:

Trip point (Overload or Underload): 0,1 to 1A or 0,5 to 5A AC/DC (adjustable)
Repetitive accuracy: 1%.
Hysteresis: 2% fixed (relative to trip point setting)
Maximum input current (continuous): 6A
Peak short-term over-current (10 seconds): 20A
Current input impedance: 50 m Ω

Description of Controls



P1: **The Overload Threshold** is adjusted on P1. Maximum setting of 100% corresponds with a current level of 1A or 5A (depending on setting of S1).

P2: **The Underload Threshold** is adjusted on P2. Maximum setting of 100% corresponds with a current level of 1A or 5A (depending on setting of S1).

Note: P2 should be set to a level below that of P1, i.e. the overload threshold and the underload threshold must not overlap.

P3: **Adjustable Time Delay on Trip** is set on P3 from 0,1 to 10 seconds.

S1: **The Current Range** is set for 1A or 5A on S1.

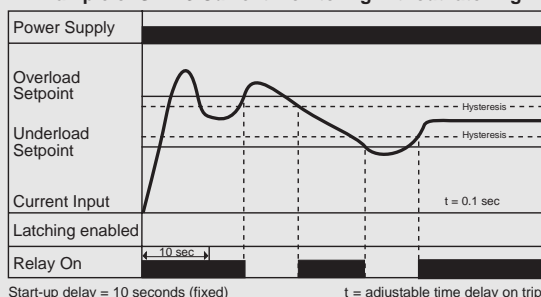
LED1: The red LED marked "Overload" will illuminate whenever the current exceeds the set overload threshold.

LED 2: The green LED marked "Relay ON" will illuminate when the relay is energised, and switches off if the unit registers a fault condition, or the power supply to the unit is interrupted.

LED 3: The red LED marked "Underload" will illuminate whenever the current drops below the set underload threshold.

Operational Diagrams

Example of SP123 Current Monitoring without latching



Example of SP123 Current Monitoring with latching

