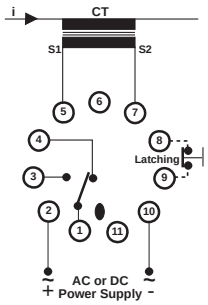
RHOMBERG

Current Monitoring Relay Single Phase 1A / 5A AC(rms)/DC

SP 103

WIRING EXAMPLE
(requires optional S3-B base)



SLIMLINE

Application Examples

- Overload protection on cranes and hoists.
- Underload detection on conveyors. Conveyor belt slip-tear alarm or simple load control of conveyors.
- Simple and inexpensive load control on small industrial or agricultural installations.
- Monitoring and controlling loads on generator sets.
- Detection of blocked extruders on moulding machines.
- Overload detection of single phase motors.

ORDERING CODE

TYPE		SUPPLY VOLTAGE		AC/DC		RELAY CONTACTS
SP103	/	240		AC	-	S

Note: SP103 supersedes SP100

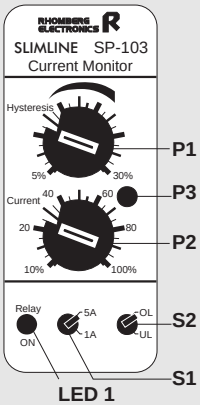
Technical Specification

Power Supply:
AC: 12, 24, 110, 240 (ie. 220-240), 400, 415, 525V ±15%
DC: 10-30V, 48, 60, 110V ± 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: 0,1 to 1A or 0,5 to 5A AC/DC (adjustable)
Repetitive accuracy: 1%.
Hysteresis: 5% to 30% (adjustable)
Maximum input current (continuous): 6A
Peak short-term over-current (10 seconds): 20A
Current input impedance: 50 mΩ

Description of Controls



P1: **Hysteresis** ie. 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 Time Delay on Trip** is adjusted on P3 from 0,1 to 10 seconds.

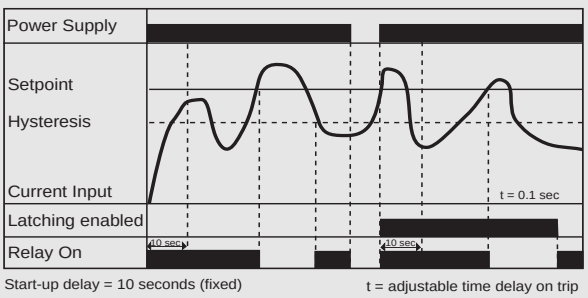
S1: **The Current Range** is set for 1A or 5A on S1.

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.

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.

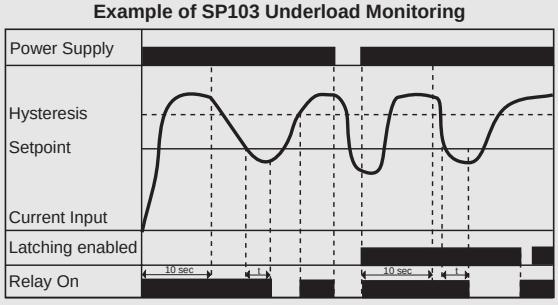
Operational Diagrams

Example of SP103 Overload Monitoring



Start-up delay = 10 seconds (fixed)
t = adjustable time delay on trip

Example of SP103 Underload Monitoring



t = adjustable time delay on trip (0.1-10 sec)