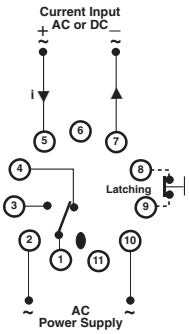
RHOMBERG

Current Monitoring Relay 0-200 mA AC (RMS)/DC 60 mV/150mV (DC shunt) 0-5V AC (RMS)/DC

SP 104

WIRING EXAMPLE
(requires S3-B base)



SLIMLINE

Application Examples

- Protection of DC Motors against over-current.
- Supervision of 4-20 mA control loops for open circuit.
- Supervision of 4-20 mA control loops for short circuit.
- Supervision of mA outputs from Rhomberg SC320 Relay.
- Load monitoring on DC winders in conjunction with a DC shunt.
- AC Current control interfacing with current-to-voltage transducers.
- DC Current control of electroplating processes.

ORDERING CODE

TYPE		SUPPLY VOLTAGE	AC/DC		RELAY CONTACTS
SP104	/	240	AC	-	S

Note: SP104 supersedes SP101

Technical Specification

Power Supply:
AC: 12, 24, 110, 240 (ie. 220-240), 400, 415, 525V ±15%
DC: 10-30V, 48, 60, 110V ± 15%

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

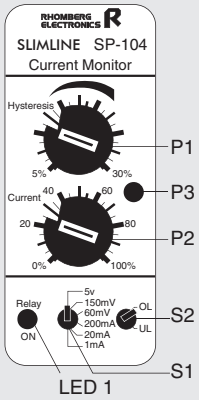
Current Input:

Repetitive accuracy: 1%.

Hysteresis:
5% to 30% (adjustable)

Range	Input Impedance	Max. Input (continuous)
1mA	60 ohm	60 mA
20mA	3 ohm	350 mA
200mA	0.7 ohm	800 mA
60mV	10k ohm	50 V
150mV	10k ohm	50 V
5mV	10k ohm	50 V

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 (millivolt) level selected on S1.

P3: Adjustable time delay on trip from 0,1 to 10 seconds.

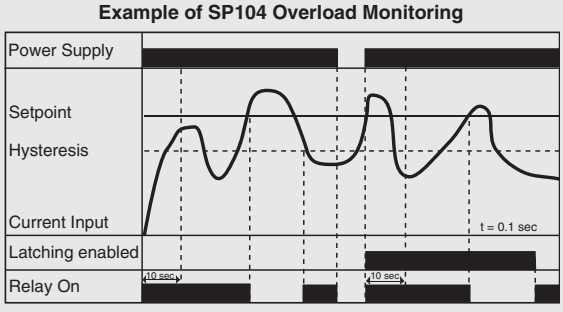
S1: **The Input Range** is set on S1.

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 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.

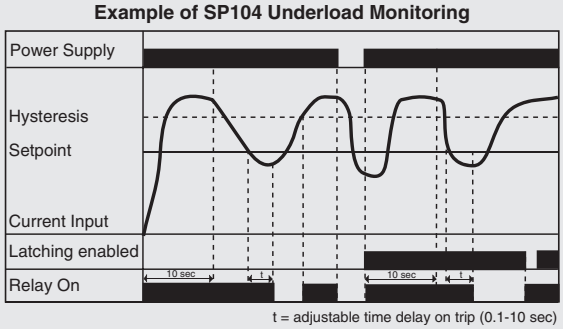
Operational Diagrams

Example of SP104 Overload Monitoring



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

Example of SP104 Underload Monitoring



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