T1R

Temperature Controller

Description

Temperature control unit for a standard three wire PT100 resistive temperature sensor with two selectable temperature ranges. The unit can be configured for OVER or UNDER temperature and has an adjustment for temperature and hysteresis.

FEATURES

- Fail-safe control feature
- Direct connection to PT100 temperature sensor
- Rear DIP switch selection of 2 temperature ranges
- Potentiometer adjustable temperature setting
- Potentiometer adjustable hysteresis setting
- Power supply ON and Relay ON LEDs
- Output 10A SPDT

Level Sensing Input Specifications

Probe Type	Pt100 3 wire
	(bridge 6 & 7 for 2 wire)
Probe Voltage	200mV
Short Circuit Current	1mA max
Standard Temperature	-20 - 80ºC
Ranges	80 - 180ºC

-20 - 80°C

80 - 180°C

Output Specifications

Output Specifications	SPDT
Rated Isolation Voltage	6000 VAC (contact / electric) 1000 VAC (contact / contact)
Nominal Rate in AC1 (Ag-Ni)	1500 VA
Rated Current	10A
Rated Voltage	250V
Mechanical Life	$10x10^6$ cycles
Electrical Life	$110x10^3$ cycles (at max load)
Operation Frequency	≤ 1800 cycles/h

Supply Specifications

Power Supply AC Type (Galvanic)	110, 230, 400V 525V ± 10% 50 / 60 Hz ± 5Hz
Isolation	4kV
Consumption	± 3VA ± 6VA 525 V

General Specifications

Power ON Delay	≤ 300 ms
Power OFF Delay	≤ 200 ms
Indication for	
Power Supply ON	LED red
Output ON	LED green
Environment	
Degree Of Protection	IP 20
Operating Temperature	-10 to + 50°C
Storage Temperature	-50 to + 85°C
Weight	200g

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Mode of Operations

Over Temperature

The relay will de-energize if the temperature exceeds the set limit. If the temperature reduces by the percentage hysteresis of the set value the relay will energize.

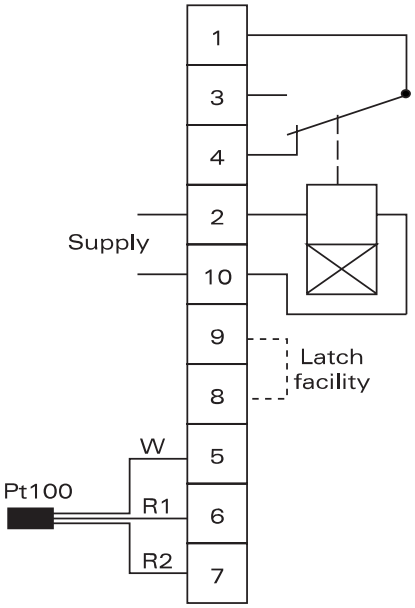
Example
Protection for over heating of equipment.

Under Speed

The relay will de-energize if the temperature drops below the set limit. If the temperature increases by the percentage hysteresis of the set value the relay will energize.

Example
Cooling plant installation.

Wiring Diagram



Operations Diagram