



Triple Display Programmable Digital Thermostat

HT1401 is highly functional thermostat controller with three individual displays for temperature control setting. With this module you can intelligently control power to most types of electrical devices based on the temperature sensed by the included high accuracy NTC temperature sensor probe. 4 tactile switches allow for setting of various parameters including on & off trigger temperatures. The on board relay can switch up to a maximum of 240VAC at 5A or 14V DC at 10A. The actual temperature is displayed in degrees Centigrade with 2-digits 7-segment display. The relay On/Off state is indicates by on two board LED indicator.

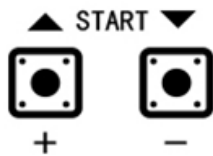
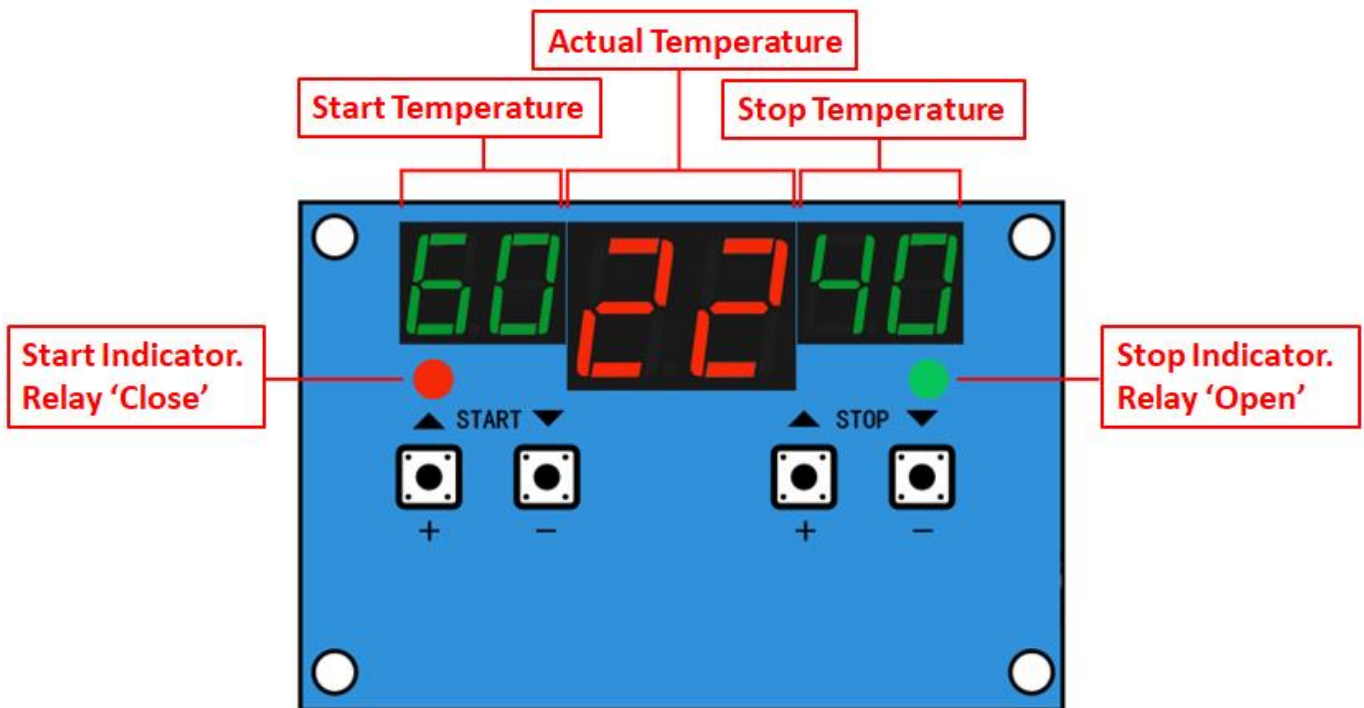


SKU: INS1009

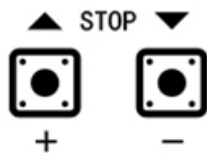
Brief Data:

- Temperature Range: 0°C ~ 99°C.
- Temperature Control Mode: ON / OFF
- Control Accuracy: 1°C.
- Refresh Rate: 0.5S.
- Supply voltage: DC 9~12V.
- Relay Output Rating: 220V~10A / 12V~10A.
- Temperature Sensor: NTC (3950-10K 1%) 50cm Waterproof Sensor.
- Environmental requirements: -10 ~ 60 °C , Humidity 20% ~ 85%.
- Dimensions: 78mm x 51mm x 30mm.

Functional Diagram:



Start
Temperature
Adjustment

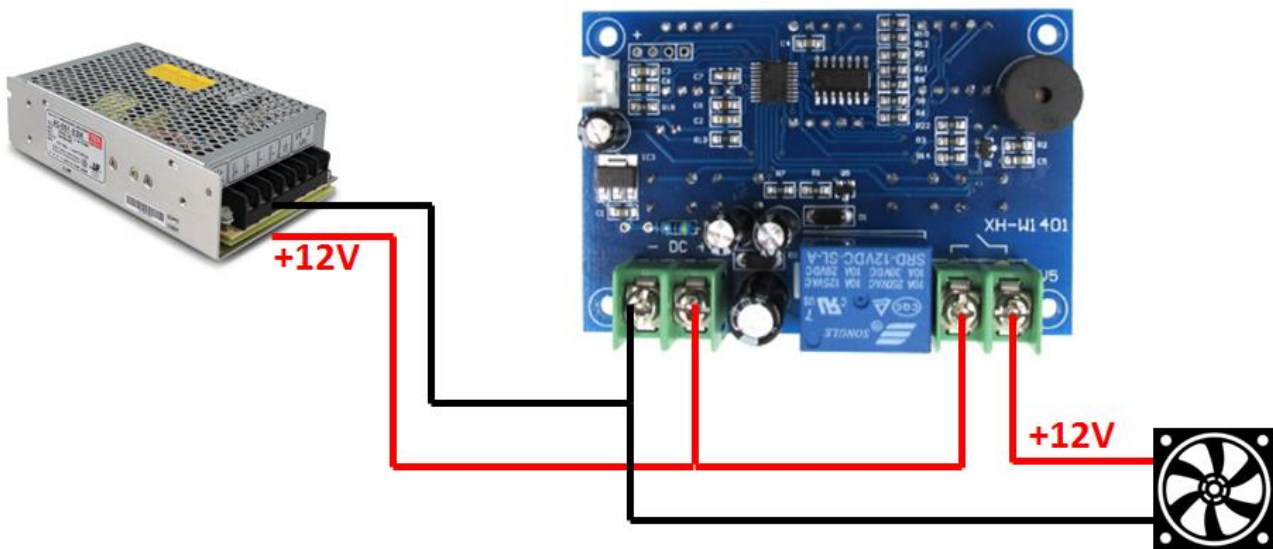


Stop
Temperature
Adjustment

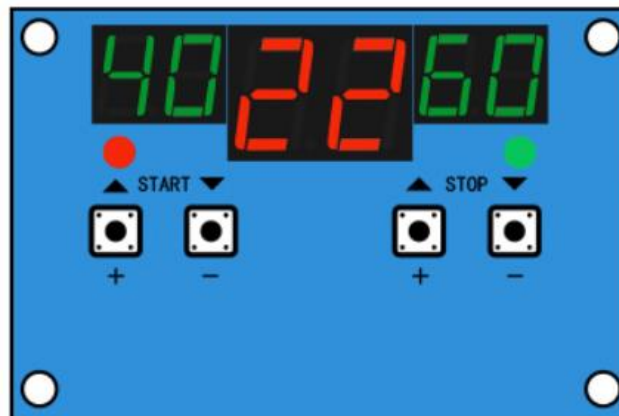
- Red light On, Relay Close, circuit in operating condition.
- Green light On, Relay Open, circuit in none operating condition.

Connection Examples:

Connection example using single power supply to control ventilation Fan On/Off for temperature monitoring of a device.



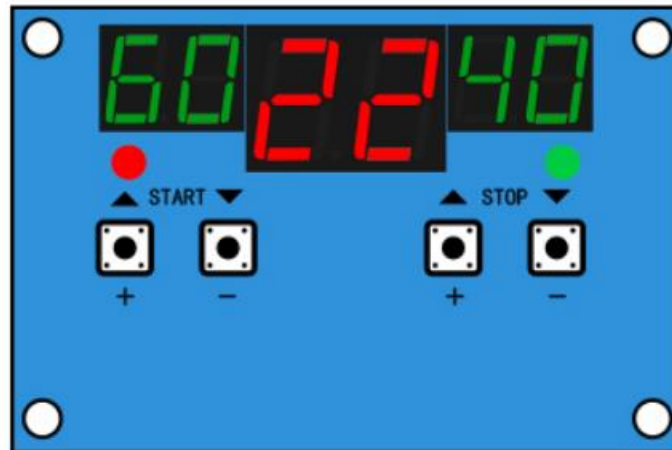
For Heating Application Setting:



The setting above will maintain the heating temperature in the range of 40 ~ 60 °C.

1. Press the 'START' up/down button to set at temperature at 40°C. When pressing the button, the display will blink. Let go the button when reached the required temperature, display stop blinking and the start temperature is set.
2. Repeat the step-1 above by adjusting 'STOP' button to 60°C.
3. When the actual measured temperature is below the start temperature of 40°C, the relay will 'Close' and start the heating process. The Red indicator will turn On.
4. When the actual measured temperature reached stop temperature of 60°C, the relay will 'Open' and stop the heating process. The Red indicator will turn Off and Green Led will turn On.
5. The process will repeat to keep the controlled temperature at 40°C~60°C

For Cooling Application Setting:



The setting above will maintain the cooling temperature in the range of 40 ~ 60 °C.

1. Press the 'START' up/down button to set at temperature at 60°C. When pressing the button, the display will blink. Let go the button when reached the required temperature, display stop blinking and the start temperature is set.
2. Repeat the step-1 above by adjusting 'STOP' button to 40°C.
3. When the actual measured temperature is above the start temperature of 60°C, the relay will 'Close' and start the cooling process (Turn on compressor or air-conditioning). The Red indicator will turn on.
4. When the actual measured temperature reached stop temperature of 40°C, the relay will 'Open' and stop the cooling process. The Red indicator will turn off and Green LED will turn on.
5. The process will repeat to keep the controlled temperature at 60°C ~ 40°C

Web Resources:

- [TEC1-12706 Peltier Thermoelectric Cooler](#)
- [50mm DC Brushless Cooling Fan](#)
- [240W 12V/20A Switch Mode Power Supply SMPS](#)



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