

# KT1210W-C Temperature Controller Operating Manual

## 1. Overview

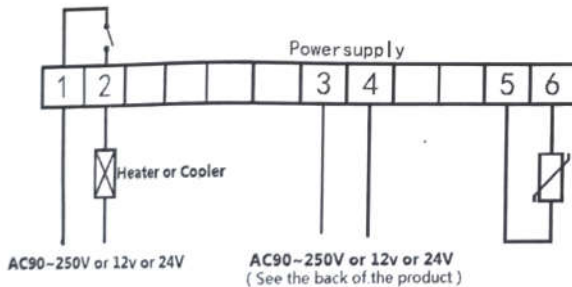
- Wide range working voltage.
- Support delay start and time shutdown.
- Heating or cooling mode can be set.
- All parameters setting can be saved after short circuit.
- high Control precision 1 centigrade
- Can be used for domestic freezer, water tanks, refrigerator, industrial chiller, steamer, industrial equipment and other temperature-controlled system.

## 2. Specifications

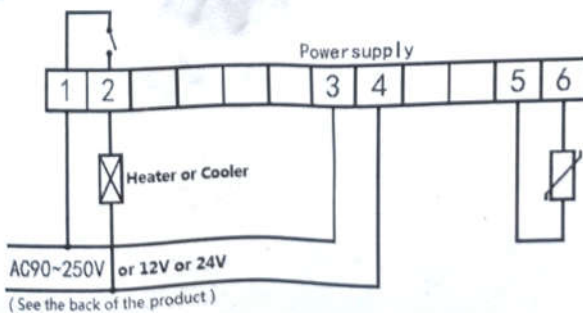
- Power Supply: AC90~250V 50/60HZ/ DC12V/ DC24V
- Temperature control range: -50~110°C
- Difference Set Value: 0.1~30°C
- Resolution Ratio: 0.1°C(-9.9-99.9); 1°C(other range)
- Measurement accuracy: ±0.1°C
- Control accuracy: ±1°C
- Measuring inputs: NTC(10K0.5%) Waterproof sensor
- Output: Relay Contact Capacity 10A/220V normally open
- Environmental requirements: -20-70°C , humidity 20% -85%RH
- Size: 75mm(L)\*34mm(W)\*85mm(Depth)
- Hole size: 71(L)\*29(W)mm
- Power consumption: Static current: ≤35MA, attract current: ≤65MA

## 3. Wiring Diagram

Connection 1: Independent power supply for heater or cooler

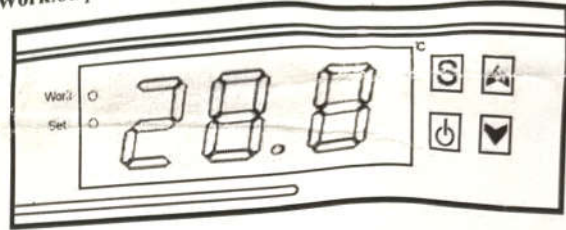


Connection 2: Same power supply for heater or cooler



## 4. Key Instruction

- S:Set key,Confirm the setting value,Entry and Set parameter.  
 [ ]:power on/off, or quit the setting.  
 [▲]:increase value [▼]:decrease value  
 Work:output indicator Set:Setting indicator



## 5. Key Operation Instruction

- In normal working status, hold [ ] 3seconds to power off, hold [ ] 3seconds to power on.
- In normal working status, press S. The screen display default temperature setting value and flash. Press [▲] or [▼] to increase or decrease the setting temperature value. Press S to save it and back to normal screen.
- In normal working status, press S for 3s to enter set mode. Press [▲][▼] to switch from HC-A7.(see code table). Press S to enter any code,press [▲][▼] to change code setting.
- Both press [▲][▼] for 3seconds to reset the controller.

## 6. Operation Instruction

- In normal working status, the screen display RT(real time temperature value).
- ①Cooling mode: HC set to C. use cooler as load. When  $RT \geq ST$  (temperature set value) + D (difference value), work indicator turn on. output relay connect. Load start to work. When  $RT \leq ST$ , work indicator turn off, output relay disconnect, load stop working.
- For example,set 10 °C ,difference 3 °C ,cooler work when  $RT \geq 13$  °C .cooler stop when  $RT \leq 10$  °C .
- ②Heating mode: HC set to H,use heater as load. When  $RT \leq ST-D$ , work indicator turn on. output relay connect. load start to work. When  $RT \geq ST$ , work indicator turn off, output relay disconnect, load stop working.
- For example,set 10 °C ,difference 3 °C ,heater work when  $RT \leq 7$  °C .heater stop when  $RT \geq 10$  °C .

ST---temperature setting value .default value is 40°C

| Code | caption            | Setting Range | Factory Setting |
|------|--------------------|---------------|-----------------|
| HC   | Heating/Cooling    | H/C           | H               |
| D    | Return Difference  | 0.1-30°C      | 2.0°C           |
| LS   | Set low Limit      | -50°C~ST      | -50°C           |
| HS   | Set high limit     | ST~110°C      | 110°C           |
| PU   | Delay Start        | 0-90minute    | 0               |
| CA   | Temp correction    | -10-10°C      | 0.0°C           |
| A7   | Timing stop output | 0-999minute   | 000             |