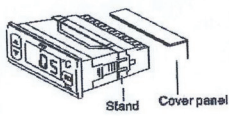
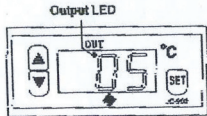


WA-DT0414 Temperature Controller Manual



Features of function

- This temperature controller adopt world well-known brand IC. It is reliable and durable. The relay is exclusive use for compressor load which make it safer. The way of controlling temperature is return type and easy to operate.
- Mini-sized and integrated intelligent control, it is suits to be used in cooling-water machine or fish cultivation pond.

The main functions

- Temperature display
- Temperature control
- Manual refrigerant, heating pattern changes
- Parameter sets and value storing
- Compressor start delay time
- The factory default resumption
- Offset on sensor temperature
- Self testing

Specifications

- Power supply: 12V~, 50Hz; Power consumption: <5W
- Range of Temperature displayed: -45°C~45°C; Tolerance: ±1°C
- Range of set temperature: -45°C~45°C; Factory default: 16°C
- Temperature sensor: NTC, one sensor (for cold-room temperature control)
- Output contact capacity for refrigerant: N.O. 7A/250V~, 50Hz.
- Output contact capacity for heater: N.C. 7A/260V~, 50Hz.
- Panel dimension: 78(L)×36(W)×78(D)mm; Mounting hole dimension: 71(L)×29(W)mm
- This temperature controller is for use in class II appliance, pollution degree II
- Face plate material: PC
- Enclosure material: ABS
- Feature of automatic action: Type 1.B
- The endurance for the temperature controller is 100 000 operating cycles.
- The type of disconnection provided by each circuit is micro-disconnection.
- This temperature controller is for continuous operation.
- The original temperature sensor shall be used.
- The output of the control is sinusoidal wave.
- This temperature control is used for function, not for safety protection.

Indicator

- Refrigeration: During refrigeration, the output LED and the refrigeration contact will turn on.
- Constant temperature: Constant temperature, the output LED will turn off, and the refrigeration contact will stop.
- Delay time: During the delay start, the output LED flashes, and the refrigeration contact will stop.

Front panel operation

- Set temperature: Press **SET** button, the set temperature is displayed; Press **▲** or **▼** button to modify and store the displayed value, press **SET** button to exit the adjustment and display the cold-room temperature.

Parameter setup

- Parameter setup: Press **SET** button and hold for 6s to enter the parameter setup mode while E1 flashes; Press again **SET** button to select sequentially from the 5 parameters: E1~E5; Press **▲** or **▼** button, the value of parameter will be displayed and can be modified and stored; If no more button is pressed within 10s, the cold-room temperature will be displayed.
- The factory default resumption: Press **▼** button 1s and then press **▲** button simultaneously for 6s, the indicator flashes, all parameters will be resumed as same as factory defaults. After 10s, it returns to normal operation.

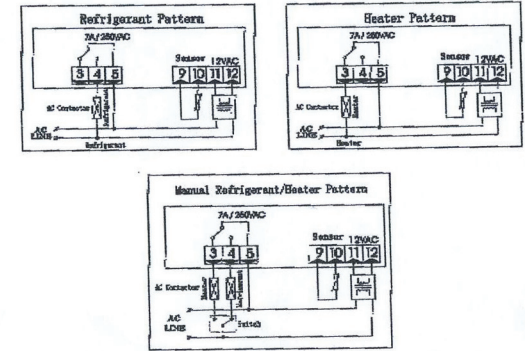
Parameter details

Parameter	Function	Set range	Default
E1	Lower set point limit	-45°C~Set temp.	02°C
E2	Higher set point limit	Set temp.~45°C	40°C
E3	Temperature hysteresis	01°C~10°C	03°C
E4	Comp. Start delay time	00~05Min	02
E5	Offset on room temp.	-05°C~05°C	00

Function details

- Temperature controlling: After turning on for the delay time(E4), the refrigeration contact starts operating when cold-room temperature>[set temperature+hysteresis], and will be off when cold-room temperature<=set temperature. To protect the compressor, it can be re-started unless the time when the compressor stops every time is longer than the delay time.
- Abnormal work mode: The cold-room sensor is short circuit or overheated, "HH" is displayed; cold-room sensor open circuit or too low temperature, "LL" is displayed. At that time the compressor automatically by the cycle of 45 minutes on and 15 minutes off.

Circuit diagram



Note: Conductor of at least 1.0mm² shall be used for wiring of refrigerant and heater control load.

Notes for installation

- Before wiring, please read the instruction carefully and understand the function of every contact so that you can make correct wire connection. Control loads cannot exceed the ratings.
- The temperature controller cannot be installed in the area where water drops, dirty, moisture or in high temperature. Please pay attention to EMC problem and prevent the temperature controller against collision.
- The sensor cable leads must be kept away from main supply in order to avoid high frequency noise introduction.
- 0.75-1.5 mm² flexible cord shall be used for wiring control load terminals.
- If the temperature controller go to disturb, please cut off the power supply and reset. The software of this product belongs to grade A, and it does not apply to safe control.
- Please don't dismantle the controller. If you need repairing or you have any problems in using the controller, please don't hesitate to contact our company.

Accessories

- One attached transformer / One temperature sensor / One installation stand / One elastic band / One cover panel / One screw / One product manual



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