Model: DWH7016R

Please check your controller label. Depends on your order the power supply (operating voltage) could be either 110V, 220V or 12V

1.Technical information :

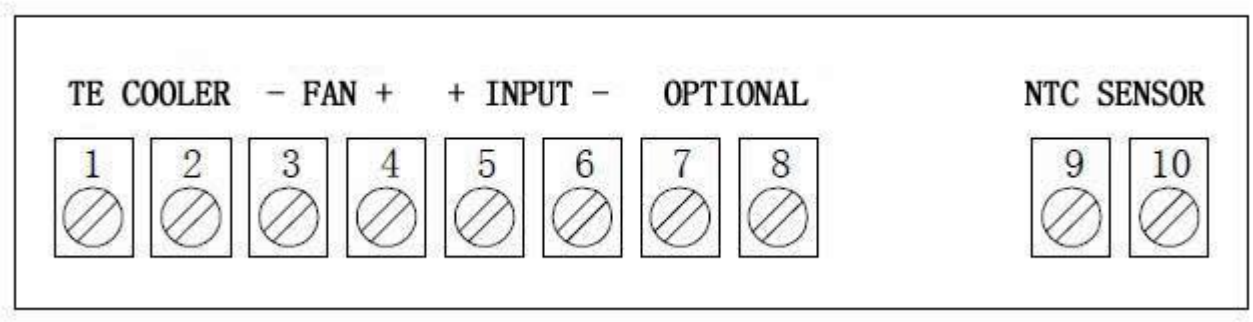
Temperature control range: -9.9℃~99.9℃
0.1℃screen accuracy, 0.1℃control accuracy
Relay current up to 10A/30V
Operation temperature: 0℃～50℃
Temperature control accuracy: 0.1℃
Measurement tolerance: +/-0.5℃
Working current: Max 200mA
Relay current: Max 10A/30V or15A/12V

2.Specification:

Fan control for the heat sink
Hysteresis error settings for Cooling & Heating both
Alarm for over temperature or low temperature
Parameters automatically saved when power off
With Temperature sensor (NTC 3 meter wire)
Temperature sensor: NTC (10K/3435)
Parameters automatically saving: Yes
Total dimension: 75x34.5x85mm

3. Connections:

Pin 1 & 2: Connect to TE cooler. Pin1 is + and Pin2 is - while heating.
Pin1 is - and Pin2 is + while cooling.
Pin 3 & 4: Connect to fan. Pin3 is +and Pin4 is -.
Pin 5 & 6: Connect to power supply (DC 12V). Pin5 is + and Pin6 is -.
Pin 7 & 8: If shorted circuit, the parameters setting will not be changed.
Pin 9 &10: Connect to sensor.



4. Buttons Description:

RST Button:
When system is on, press this button for continuous 3 seconds and system will be switched off. When system is off, press this button once and system turns on.
SET Button:
A: Press **SET** once to set to set the target temperature. Press ▲ or ▼ to adjust the parameters, and then press **SET** once again to quit the setting, or wait for 5 seconds for automatic quit.
B: Press **SET** for continuous 3 seconds and enter the system menu selection. Press ▲ or ▼ to choose the menu and then press **SET** to enter the related parameter setting status. Press ▲ or ▼ to adjust the parameters, and then press **RST** once again to quit the setting, or wait for 5 seconds for automatic quit.

5. Functions Description:

Indicator Status:
The **WORK** indicator at the left panel shows the peltier is working, and the **SET** indicator shows the system is in setting status.
Functions:
Press **RST** once and system will be switched on. Press this button for continuous 3 seconds and system will be

switched off.

1) Range Constant Temperature Function

A: When measured temperature value >=Setting Value+ Hysteresis, the cooling will be started. When measured temperature value <= Setting Value, the output will be switched off.

B: When measured temperature value < Setting Value- Hysteresis, the heating will be started. When measured temperature value >= Setting Value, the output will be switched off.

2) Range Constant Temperature Settings

Press **SET** for less than 3 seconds or press **SET** once, enter the menu. Press ▲ or ▼ to change the settings.

3) Hysteresis Error Function

Hysteresis Error gives limit to the output interval between on and off. The minimum interval is 0.1℃ and maximum is 15℃.

4) Hysteresis Error Settings

Press **SET** for less than 3 seconds, enter the menu. Press ▲ or ▼ to get 'D' shown in the panel, and press **SET** again to display the settings or press ▲ or ▼ to change the parameters.

For example, set target temperature at 25℃ and Hysteresis at 0.2 ℃. Then the temperature will be controlled at 25+/-0.2℃.

5) Temperature Calibration

If there is a difference between measure temperature and standard temperature, you can use this function for the calibration.

Press **SET** for less than 3 seconds, enter the menu. Press ▲ or ▼ to get 'CA' displayed on the panel. Then press **SET** to display this Temperature Calibration value, and press ▲ or ▼ to set this value.

6) Temperature Control Range Setting.

Press **SET** for less than 3 seconds or press **SET** once, enter the menu. Press ▲ or ▼ to set 'HS' and 'LS'. The 'HS' value is the upper temperature, and 'LS' value is the lower temperature. -9.9℃<'LS'<'HS'<99.9 ℃.

7) High Temperature Alarm Settings

If measured temperature > Target Temperature + 'AH' value, there will be alarm. Press any button to stop the alarm.

8) Low Temperature Alarm Settings

If measured temperature > Target Temperature - 'AL' value, there will be alarm. Press any button to stop the alarm.

9) Menu Codes Selection

Code	Description	Range	Default Value
D	Hysteresis Error	0.1~15	1℃
LS	Lower Temperature Limit	-9.9~HS	-9.9℃
HS	Upper Temperature Limit	LS~99.9	99.9℃
CA	Temperature Calibration	-7~+7℃	0℃
AH	High Temperature Alarm	0-15	1.0℃
AL	Low Temperature Alarm	0-15	1.0℃

6. System Failure Notice:

1) If the temperature sensor is disconnected, the panel shows --- and alarms turn on. The heatsink will be switched off.

2) If the temperature is lower than -9.9℃, the panel shows LLL.

3) If the temperature is higher than 99.9℃, the panel shows HHH.

7. Other Operation Notice:

1) The load should not exceed the limit of the relay, or it may cause damage to the controller.

2) Make sure the electrical connections are in good conditions before you start the system.