AED330A-24VDCTemperature Controller
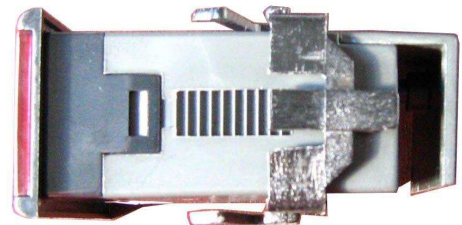
AED330A-24VDC Temperature controller was designed by Adcol Electronics Company, it could be used for TEC application, it has digital display, also input 12~24VDC with 10A current.

Product Size ：77mm（L ）×35mm（ W）×60mmD）

Hole Size ：71mm（L ）×29mm（ W）

1 、Basic Characteristics:

■ Mini-sized and Intelligible temperature control
■ Temperature Display/Refrigerating & Heating Modes Selection/Value storing/Self testing

2、Datasheet:

1)、Power supply ：12~24VDC
2)、Sensor ：N TC
3)、Temperature Display Range： －45～12 0℃(－40～248℉) accuracy： ±0.1 ℃(±0.1℉)
4)、Temperature Setting ： －45～12 0℃(－41～248℉) Factory default ：0℃（ 32℉)
5)、Operate Temperature： －10～60℃(14～1 40℉) ；Humidity：20 %～90 %（Non Condensing）
6)、Relay Output: control output ：10A

3、Function Details:

Front Panel Operation

1). Set temperature (Cooler stop temperature) adjustment
　　Press "SET" button, the set temperature is displayed.
　　Press "△" or "▽" button to modify and store the displayed value. The values can be increased or reduced rapidly by pressing "△" button or "▽" button for more than 2 seconds. Press "SET" button to exit the adjustment and display the cold-room temperature.

If no more button is pressed within 6 seconds, the cold-room temperature will be displayed.

   (Set temperature adjustment range: parameter E1～E2)

2). Cooling LED: During Cooling, the LED is on; when the cold-room temp. is constant, the LED is off; during the delay, the LED flashes.

3). Heating LED: during heating, the LED is on; when the cold-room temp. is constant, the LED is off; during the delay, the LED flashes.

4). Parameters setup

   Press "SET" button and hold for 6 seconds to enter the parameter setup mode while E1 flashes.

   Press again "SET" button to select sequentially from the parameters : E2,E3,E4,E5,C1,C2,P1,P2,P3,P4.

   Press "△" or "▽" button, the value of parameter will be displayed and can be modified and stored.

   If no more button is pressed within 6 seconds, it will return to normal operation mode.

Parameter	Function	Set range	Default
E1	Lower setpoint limit	−45℃/−49℉～Set temp.	−35℃/−31℉
E2	Higher setpoint limit	Set temp.～120℃/248℉	90 ℃ /194 ℉
E3	Temp. hysteresis	0.1～30.0℃/0.2～54.0 ℉	4.0℃/7.2 ℉
E4	Comp.start delay time	0～10Min	2Min
E5	Offset on evap.temp	−19.9～20.0℃/−35.0～36.0 ℉	0
C1	Temperature unit	0=℃ 1= ℉	0
C2	Temperature control mode	0=refrigerating 1=heating	0
P1	High temp. alarm value	−45～100℃/−49～212 ℉	45 ℃ /113 ℉
P2	Low temp. alarm value	−45～100℃/−49～212 ℉	−40℃/−40℉
P3	Alarm delay time	0～90Min	60Min
P4	Alarm hysteresis	0.1～10.0℃/0.2～18 ℉	2.0℃/3.6 ℉

5). The factory default resumption: press "▽" button for 1 second and then press "△" button simultaneously for 6 seconds, the indicator flashes, all

parameters will be resumed to factory defaults. After 6 seconds, it returns to normal operation mode.

6). Parameters Locking

In normal operating, press "▽" button and hold for 6 seconds to lock the parameters if "OFF" is displayed or to unlock if "ON" is displayed. Parameters can be displayed only and can not be modified if locked, but the adjustment of the set temp. is still active (factory default is "ON")

Temperature control：

Refrigeration Operation State: After power on and delay time, when cold-room temperature is higher than refrigeration setting temperature, the cold relay is connected and TEC unit starts to refrigerate. When the temperature reach the setting temperature, the Relay disconnect and TEC unit stop operate.

Heating Operation State: When setting the heating control mode, TEC Unit need to connect with reverse wire, after the delay time, when the cabinet temperature is lower than the setting temperature, the TEC unit start to heat, when the temperature reach the setting temperature, the relay disconnect and TEC unit stop operate。

Wire Connection Diagram:
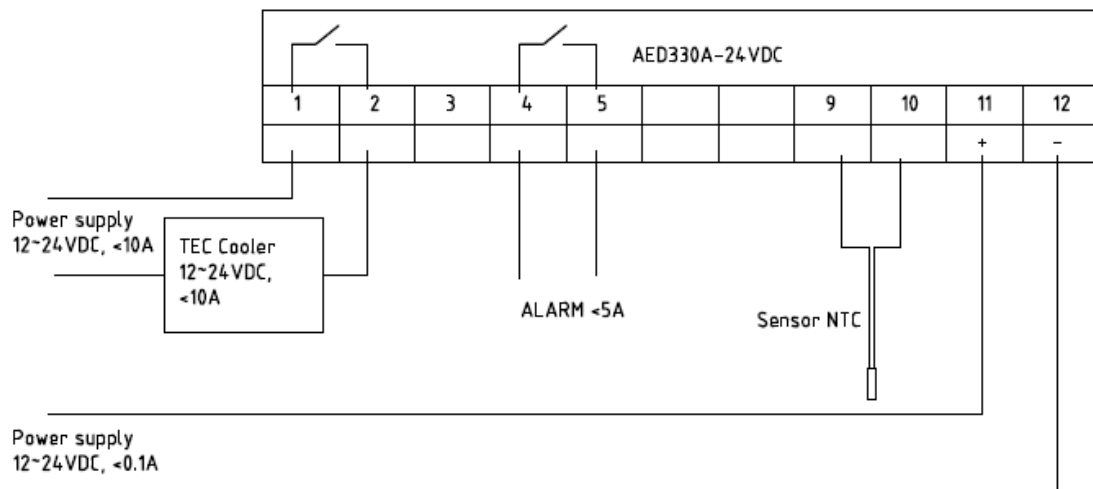
4、 Notice of installation:

1)、The sensor cable leads must be kept separately from main voltage wires in order to avoid high frequency noise induced.

2)、The temperature controller can not be installed in the area with water.

5、Packing with Accessories:

1)、 NTC Sensor 1pc，2m long; Diameter 6mmx30mm long; Stainless steel with RTV Seal.