

type special controller make use of high quality chips with heating and cooling function have cool-protection function,It has small size and uses convenient, It is special for industrial coder machine, and yet good for the freezer and the cake room in supermarket , shopping store, hotel etc.

1. Parameter setting

- 1) Displaying measured value when it turn power on . If you do not change the setting value. The controller will control automatically with the prior setting value.
- 2) Change the setting value : press the SET key, the window display the prior setting value, next press UP or DOWN key can change the setting value, press UP key to increment numerals, and press DOWN key to decrement numerals. If the key operation is not performed for more than 4 seconds ,the controller will confirm the last setting value ,and then will came back to the normal running state.
- 3) Cooling or heating mode [HC]setting :Usually ,initial control mode is cooling [C] prior to shipment. If you will change to heating mode ,press the SET key for more than 3 seconds, come in the parameter program ,the window will display HC, press and hold the set key , press UP or DOWN to display H, It means the control mode has been changed from cooling to heating .It is the same method if you want to charge from H to C. If press UP key ,turn to parameter setting .If the key operation is not performed for more than 4 seconds ,the controller will come back to the normal running state.
- 4) Backlash (**d**) setting :(backlash definition: when the measured value change is fast, the controller need set backlash value to avoid the cooler (heater) run or stop quickly. For example: when cooling ,the setting value is +18 °C, **d** is +2°C,only when the measured value get to +20 °C,the relay in the controller will turn on, the cooler will operate. Press the SET key for more than 3seconds, come in the parameter program ,the window display HC ,press UP or DOWN key will display **d** .Press and hold the SET key ,press UP or DOWN key ,the window display **d** prior value ,then press UP or DOWN key can change **d** value .If the key operation is not performed for more than 4 seconds ,the controller will come back to normal running

state .

5) Upper limit of input signal setting : Press the SET key for more than 3s ,come in the parameter program ,press UP key to display HS, press and hold the SET key ,press UP or DOWN key ,the window display HS prior value ,then press UP or DOWN key can change HS value, stop press the SET key, only press UP key turn to LS setting . If the key operation is not performed for more than 4 seconds, the controller will come back to normal running state.

6) Lower limit of input signal : display LS, the setting method is the same to setting HS.

7) Temperature deviation adjustment [CA]setting:

When the measured value and the actual value has deviation, press the SET key for more than 3s,come in the parameter program , press UP key to display CA, press and hold the SET key ,press UP or DOWN key, the window display CR prior value ,than press UP or DOWN key can change CA value.

8) compressor delay protection [PT]setting:

PT is the delay operation time .the range is 1-3min.

## 2. Installation

1).the size is 76mm×33mm×81mm.

2).Ambient temp : -5°C~65°C.

3).without conductive, explosive dust.

4).without corrosive gas and steam damaged to metal and isolator.

## 3. Cautions of wiring

1).the controller is suitable for less than 2.5mm<sup>2</sup> wires.(every terminal is only for one wire ,VDE)

2).The power supply voltage must be conformed to the controller.

## 4. The sensor for the controller :

Only thermistor NTC 10k, the range is -40~85°C.

## 5. Error display EI :

If the thermistor is bad ,short circuit or no installation ,the controller will display EI. the controller can not control temperature.

## Program parameter

Symbol	Name	description	Initial value	unit
HC	Cooler /heater	H/C	C	
d	Backlash	1~15	1	°C
HS	Upper limit	-40~85	-40	°C
LS	Lower limit	-40~85	85	°C
CA	Adjustment	-15~15	0	°C
Pt	Delay time	1~3	1	minute

