C1206-D MANUAL

1. Introduction

The controller contains a temperature control where the signal can be received from one temperature sensors(NPT).

Two relays will cut the required functions in and out.

- Cooling(K1 16A 250VAC)
- Heating(K2 10A 250VAC)

2. Abnormal State：

1. **EEE** Sensor error.
2. **PrE** Enter the parameter-set optional **dFu**. Choose 1 to return to the parameter default, and then set the parameter again.
3. **LLA** Shows that the temperature is below the minimum alarm temperature(**LS**), and surpasses the alarm timelag (**At**).
4. **HHA** Shows that the temperature is above the maximum alarm temperature(**US**), and surpasses the alarm timelag (**At**).

3. 1 FRONT PANEL

SET: In programming mode it selects a parameter or confirm an operation.
Push the **SET** key ,to display target set point(**sp**);
Push the **SET** key 6 seconds ,to set the set point(sp);

▲(**UP**): in programming mode it browses the parameter codes or increases the displayed value.
▼ (**DOWN**): in programming mode it browses the parameter codes or decreases the displayed value.

KEY COMBINATIONS:

▲ + ▼ To lock & unlock the keyboard**.**
SET +▲ To enter in programming mode.

3.2 USE OF LEDS

Each LED function is described in the following table.

LED	MODE	FUNCTION
❄	ON	Cooling(K1) open
❄	Flashing	Cooling(K1) delay
♨	ON	Heating(K2) open
SET	ON	Setup

3.3 HOW TO SEE THE SET POINT（SP） AND MODIFY THE SET POINT

1. Push and immediately release the **SET** key: the display will show the Set point value;
2. Push the **SET** key 6 seconds: The display start lighting;
3. Return the Set key push the **SET** or narrows within 10s.
4. To save the new set point value push the **SET** key again.

3.4 HOW TO CHANGE THE PARAMETER VALUE

1. Push the **SET+▲** key enter the parameters of regulator.
2. Select the required parameter with ▲ or. ▼
3. Press the **SET** key to display its value
4. Use ▲ or ▼ to change its value.
5. Press **SET** key to store the new value and return to parameters of regulator
6. Select **End** exit the setting or wait 10s without pressing a key.

3.5 HOW TO LOCK THE KEYBOARD

1. Keep the ▲and ▼ keys pressed together for more than 3 s the ▲ and ▼ keys.
2. TO UNLOCK THE KEYBOARD
Keep the ▲ and ▼ keys pressed together for more than 3s.

4. PARAMETER LIST

Us: Upper alarm limit. Here you set when the alarm for low temperature is to start.
range: -39-60℃,The default is 60℃.

Ls: Lower alarm limit. Here you set when the alarm for high temperature is to start.
range: -40-59℃, The default is -40℃

CAL: Correction of signal from Sensor(NPT) . Compensation possibility through long sensor cable
range:-10-10℃ The default is 0℃

HSC: Cooling hysteresis
range: 0-20℃ The default is 2.0℃

HSH: Heating hysteresis
range: 0-20℃ The default is 2.0℃

dbd: Dead zone, temperature range symmetrically around the set point SP, within which neither the cooling output nor the heating output change their status
range: -20 ~ 20℃ The default is 0.0℃
*** If 'dbd' is lower than 0, 'dbd' is higher than 2 x (-HSC + 1) and 2 x (-HSH + 1)**

rt: Cooling Min. OFF-time (in minutes) range: 0-255 min, The default is 3 min.

At: Temperature alarm delay range: 0-255 min The default is 60min.

C-H: The working mode . range: 0-2 The default is 0
0 cooling and heating mode
1 cooling mode
2 heating mode

C-F: C/F Optional range: 0-1 The default is 0
0 ℃
1 ℉

dFu: range: 0-1
1 back to the state out of factory.
0 no changed

END: exit the program parameter setting

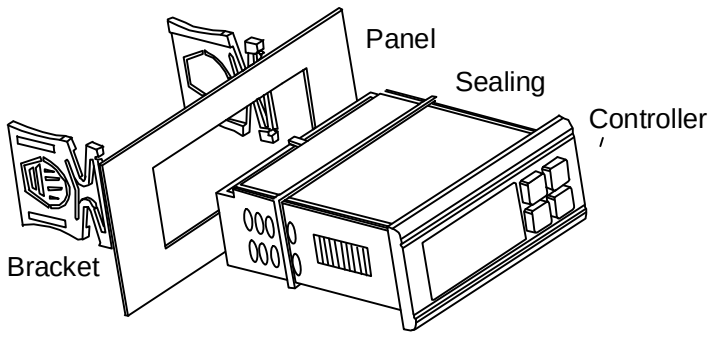
***** If **C-H** set as 0 or 1, when the temperature is higher than the **sp** + **HSC + dbd/2**, the relay for cooling (K1) will be cut in. It will cut out again when the temperature comes down to **sp + dEd/2**.

***** If **C-H** set as 0 or 2, when the temperature is lower than the **sp** – **HSH – dbd/2**, the relay for heating(K2) will be cut in. It will cut out again when the temperature comes down to **sp – dEd/2**.

5.. INSTALLATION AND MOUNTING

Instruments shall be mounted on vertical panel, in a 71x30 mm hole, and fixed using the special bracket supplied. To obtain an IP54 protection grade use the front panel rubber gasket as shown in fig.3.

The temperature range allowed for correct operation is õ~60 °C. Avoid places subject to strong vibrations, corrosive gases, excessive dirt or humidity. The same recommendations apply to probes. Let air circulate by the cooling holes.



6.Technical Data：

Case Material ： Fire resistance black ABS
Case Size： 75×38×70
Mounting： Mounting size 71×30
Protective classification： Front，IP54
Connection： Screw terminal
Working Condition： -10℃～55℃，RH＜85％，no condensing
Storage Condition： -10℃～70℃，RH＜85％，no condensing
Measure Range： -40℃～60℃/-40-140F
Resolution： 0.1 ℃/ ℉
Power Supply： 220VAC,±10％,50/60Hz
Power Consumption： no more than 2W
External Fuse： 0.5A
Shockproof： qualified to the demands of I and II instruments
Heat Insulation and Fire Resistance： D
Relay Connection： K1 220v， 16A
K2 220v, 10A
Input ： 1 NTC , Three keys
Output： 2 normal opened contact
Display： Three- bit LED nixie tube display of the integer temperature between -40℃~ 60℃ /-40℉ and 140℉

Connection Fig.