THC0302　Temperature and Humidity Controller

■Characteristic

1. We adopt high reliable computer chip and high precision sensor of testing temperature and humidity for the temperature and humidity controller, and combined with intelligent software control technology.

2. The controller possess functions such as strong anti-jamming, high controlling precision and flexible controlling mode, it can set the upper limit and lower limit of temperature and humidity, controlling return difference and controlling mode respectively according to different controlling demand, so it suitable for general monitor needs in temperature and humidity. It can be applied in industry, agriculture, grain depot and storehouse.

■Performance

Model	THC0302
Supply voltage	220VA50-60Hz
Power consumption	About 1.5VA
Control output	5A, 250VAC (Resistance load)
Display device	LED display
Temperature set	0~99.9℃
Humidity set	0~99.9%RH
Turn difference set	Temperature 0~9℃, humidity 1~9%RH
Distinguish ability	Temperature 0.5℃, humidity 1%RH
Accuracy	Temperature ±1℃, humidity ±5%RH
Working mode	2 modes, 0, 1
Ambient temperature	-10℃ to 70℃
Ambient humidity	45 to 85%RH
Mechanical life	At least 3000,000times
Weight . Size	About 3000g, 48×96×111mm
Installation mode	Panel mode, tapping size 45×93 mm

■Operation

The key from left to right in turn is SHIFT 〉〉 ∧ ∨ RES, respectively are keys K1, K2, K3 and K4.

1. SHIFT 〉〉 is position-choosing key: keep pressing the key for 8 seconds, the first digit flashed, it means that the instrument has already under the preset value controlling state, the upper three digits shows temperature control value, and the lower three digits shows humidity control value. The flashed is the chosen digit, press K2 or K3, the digit will increase or decrease successively to the demand value. If keep pressing K2 or K3 keys, then the digit value will keep increase or decrease successively until to the demand value. If press this key again, the chosen (flash) digit position order will shift to the right until to the end position and then back to the first position again.

2. ∧ is compound key: (1) Press this key in normal condition, all digits will flash, and instrument enter into control value viewing state, the upper three digits shows temperature control set value, and the lower three digits shows humidity control set value, it will exit this state after 8 seconds automatically, or to press K4 to exit immediately and resume to show the current temperature and humidity value. (2) Under the controlling value setting state, this key can make the

value of the chosen (flash) digit increase successively.

3. $\vee$ is compound key: (1) Press this key in normal condition, all digits will flash, and instrument enter into absolute value viewing state of turn difference controlling, the upper three digits shows absolute value of temperature turn difference controlling, and the lower digits shows absolute value of humidity turn difference, it will exit this state after 8 seconds automatically, or to press K4 to exit immediately and resume to show the current temperature and humidity value. (2) Under the controlling value setting state, this key can make the value of the chosen (flash) digit decrease successively.

4. RES is compound key: (1) Press this key for 8 seconds under any state, the instrument shows X-Y two rows, first bit of the front three bits flash, it means the instrument enter into control mode choosing and turn difference value setting state, the upper three digit corresponding to temperature and the lower three digit corresponding to humidity, the X means control mode, expressed by two modes of 0 or 1, choose with position-choosing key (when the instrument enter into this state, the temperature control mode will be chosen first), this position will be in flash state, press key K2 or K3 to transfer to the other mode from the current mode (from 1 to 0 or from 0 to 1). Y is turn difference value, range 0~9, choose with position-choosing key, this position will be in flash state, press key K2 or K3 to set. (2) Press this key in normal state, the instrument will enter into control mode choosing and turn difference-viewing state, the displayed value is control mode and turn difference value. (3) Under the state of controlling value setting, controlling value viewing, absolute value viewing of turn difference, control mode choosing and turn difference setting, control mode choosing and turn difference value viewing, press this key can resume to normal displaying state (the current temperature and humidity).

5. Instruction for control mode: the control mode can be set according to needs, control mode has two types, that is 0 type and 1 type. If the current temperature (humidity) value is lower than set value, the output relay will be in unclose state, but when the current value reach to or exceed the set value, the output relay close with 0 mode. If the current value is lower than set value, output relay is in close state, and when the current value reach to or exceed set value, it makes the output relay discharge with 1 mode.
    You can increase or decrease temperature (humidity) degree by different control mode. The temperature (humidity) control mode can be set respectively.

6. Instruction for turn difference value setting: turn difference value setting is used to prevent from controlling vibration when current (temperature and humidity) value reach to the critical controlling value, turn difference setting can control the vibration in a permitted range, but it will decrease the controlling precision, please choose among 0~9 to set according to your requirement. After the control value and turn difference value is set, (absolute value of turn difference controlling=control value-turn different value) the absolute value of turn difference controlling is calculated automatically by instrument.
    For example: the controlling value set is 28, turn difference value set is 3, the absolute value of turn difference controlling=28-3=25 (the absolute value of turn difference controlling is automatically calculated). The turn difference value of temperature and humidity can be set respectively.

7. Attention: Establishing the thing, it is lower than reaching the standard grade rolling off the production line.