Huazheng®

HZ2831
Transformer Oil Corrosive Sulfur Measuring Instrument

Huazheng Electric Manufacturing (Baoding) Co., Ltd

Dear user:

Thank you for choosing HZ2831 Transformer Oil Corrosive Sulfur Measuring Instrument.

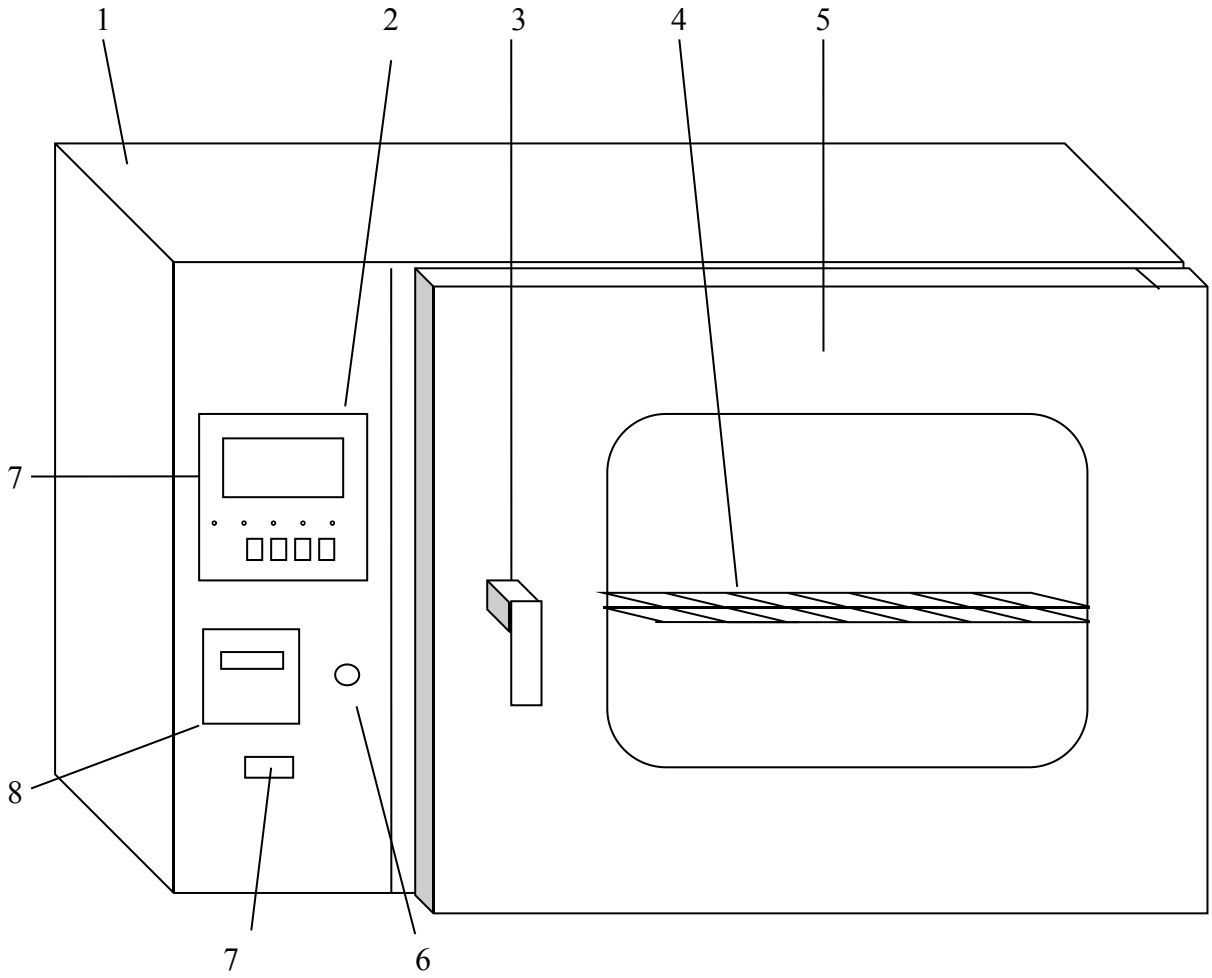
We hope that this instrument can make your work easier and more enjoyable, so that you can get the feeling of office automation in the test and analysis work.

Before using the instrument, please read this manual, and operate and maintain the instrument according to the manual to prolong its service life. "Just a light press, the test will be completed automatically" is the operating characteristics of this instrument.

If you are satisfied with this instrument, please tell your colleagues; if you are not satisfied with this instrument, please call (0312) 6775656 to tell you to serve you at all times-Baoding Huazheng Electric Manufacturing Co., Ltd., our company will definitely make you satisfied !

Contents

I. Schematic diagram：



1. Cabinet
2. Temperature controller
3. Door handle
4. Bracket
5. Box door
6. Timing switch
7. Power switch
8. Time controller

II.Scope of application：

This product is manufactured in accordance with SH/T0304 ASTM D1275 electrical insulating oil corrosive sulfur test method and is suitable for the determination of corrosive sulfur in electrical insulating oil extracted from petroleum.

III.Technical index：

Model number	HZ2831
Power supply voltage	AC220V 50Hz
Temperature control range	RT+10～250℃（The lowest control temperature is 50℃）
Constant temperature fluctuation	±1℃
Temperature resolution	0.1℃
Rated power	1220W
Test unit	Double stent
Liner size (mm)	425×400×345
Dimensions (mm)	705×580×530

IV.Structure overview:

1. This instrument adopts imported digital display PID program temperature control, and adopts special non-overshoot PID algorithm and PID self-tuning technology to ensure that the instrument does not overshoot or undershoot, and the temperature control accuracy can reach ±0.5℃.

2. The temperature measurement is carried out by Pt100 sensor. The sensor is sensitive, reliable in work, and can quickly and timely reflect temperature changes. Through the control of the digital display PID thermostat, it can fully guarantee the temperature control accuracy required by the standard.

3. The appearance of this instrument adopts an integral frame structure with large internal space. The shell is made of high-quality cold-rolled steel plate, and the surface is treated by spraying process, with a novel and beautiful appearance.

4. The inner tank is made of stainless steel plate through anti-corrosion treatment and processing.

5. There is a double-glazed observation window in the middle of the door, which can observe the heated objects in the working room at any time.

6. The door of the box is inlaid with high temperature resistant rubber strips, which has good airtightness and prevents heat loss.

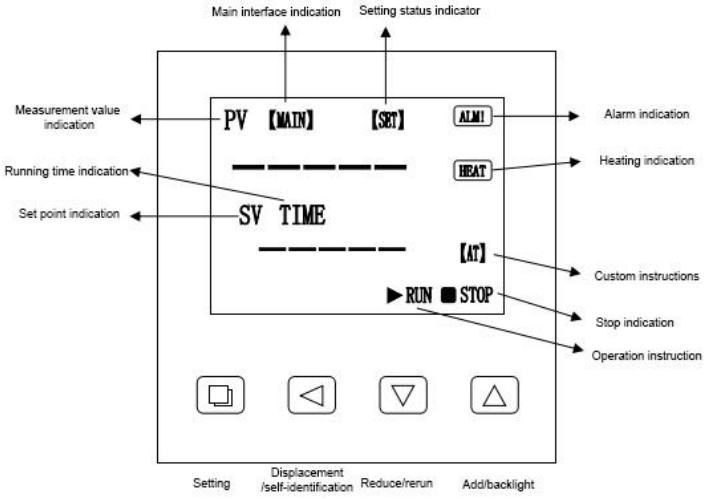
7. An exhaust valve is set on the upper side of the working room, and the moisture released by the heater can be discharged out of the box at any time during the working process.

8. The temperature in the box is forced to circulate by a fan to ensure that the temperature uniformity is controlled within ±2.5%.

V.Method summary

In the absence of air, a polished copper sheet was in contact with oil at a test temperature of 140°C. At the end of the test, check the color change of the copper sheet, and then evaluate it on the basis of comparison with the table.

VI.Instructions for use of intelligent temperature controller



1.Indicator definition:

1. "[MAIN]" indicator light: this light is on under normal working state (not set state), otherwise it is off;

2. "[SET]" indicator light: this light is on in the setting state, otherwise it is off;

3. "RUN" indicator light: this light is off when the timing ends, otherwise it is always on;

4. "STOP" indicator light: this light will be on at the end of the timing, otherwise it will be off;

5. "[AT]" indicator light: this light flashes when running the system self-tuning program, otherwise it goes out;

6. "ALM!" indicator light: this light is on when there is a temperature deviation alarm or temperature measurement is abnormal, when there is a temperature deviation alarm, the light flashes, and the light is off under normal working conditions;

7. "HEAT" indicator light: this light will be on when there is heating output, otherwise it will be off;

2.Operation and use method

1. When the meter is powered on, the upper row of the display window displays "index number and meter model", and the lower row displays "version number" for about 2 seconds, and then it enters the normal display state.

2. Temperature reference and setting

1) Click the "set" button to enter the temperature setting state, the upper row of the display window displays the prompt "SP", and the lower row displays the temperature setting value, which can be modified to the desired value through the shift, increase, and decrease keys Set value; click the "Set" button again to exit this setting state, and the modified set value will be automatically saved.

3. Abnormal temperature measurement alarm

If the upper row of the display window shows "----", it means that the temperature sensor is faulty or the temperature exceeds the measurement range or the meter itself is faulty, the meter will automatically cut off the heating output, the buzzer will beep continuously, and the alarm light will always be on. Please check the temperature sensor

carefully. And its wiring.

4. When the upper deviation over-temperature alarm, the buzzer beeps and beeps, the "ALM" alarm light is always on, and the heating output is turned off; when the lower deviation over-temperature alarm, the buzzer beeps, beeps, and the "ALM" alarm light Flashing; if an over-temperature alarm is generated due to the change of the temperature setting, the "ALM" alarm light is on, but the buzzer does not sound.

5. When the buzzer sounds, you can press any key to silence it.

6. "Shift" button: Click this button in the setting state to make the setting value shift and flash to modify; in the normal display state, long press this button

6 seconds to enter the temperature auto-tuning selection state.

7. "Decrease" button: Click this button in the setting state to decrease the set value, long press this button to decrease the set value continuously; in the normal display state, when the timing operation ends, long press this button 3 The operation can be restarted in seconds.

8. "Increase" button: click this button in the setting state to increase the set value, long press this button to make the set value increase continuously; in the normal display state, for the PC-C6000 instrument, click this button to increase Turn on and off the LCD backlight.

3.System self-tuning

When the temperature control effect is not ideal, the system can be self-tuning. During the auto-tuning process, the temperature will have a large overshoot. The user should fully consider this factor before performing system auto-tuning.

In the non-setting state, long press the "shift" button for 6 seconds to enter the system auto-tuning selection state, the upper row displays the auto-tuning prompt "AT", the lower row displays "oFF", you can click "increase" or "decrease" The small key selects to display “on” or “oFF”. When “on” is displayed, click the “set” key, the instrument enters the system

auto-tuning state, the [AT] indicator flashes, after the auto-tuning is completed, [AT] When the indicator light stops flashing, the controller will get a better set of PID parameters, and the parameter values will be saved automatically. In the process of system auto-tuning, press and hold the "shift" key for 6 seconds to stop the auto-tuning program.

In the process of system self-tuning, if there is an upper deviation over-temperature alarm, the "ALM" alarm light will not light up and the buzzer will not sound, but the heating alarm relay will be automatically disconnected. The "Set" key is invalid during system auto-tuning. In the process of system self-tuning, regardless of whether there is a constant temperature time setting, the lower row of the controller display window always displays the temperature setting value.

4.Reference and setting of temperature internal parameters

Long press the setting key for about 3 seconds, the upper row of the indicator display window displays the password prompt "Lc", and the lower row displays the password value. Use the increase, decrease and shift keys to modify the required password value. Click the set button again, if the password value is incorrect, the meter will automatically return to the normal display state; if the password value is correct, it will enter the temperature internal parameter setting state, and then click the set button to modify each parameter in turn. Long press the set button for 3 seconds to exit this state, and the parameter value is automatically saved.

5.Matters needing attention:

1. The shell of the drying box must be grounded effectively to ensure safe use.

2. The drying box should be placed in a well-ventilated room, and no flammable and explosive materials should be placed around it.

3. The drying box has no explosion-proof device, and flammable and explosive materials are not allowed to be dried in the drying box.

4. Do not overcrowd the items in the box, and leave space to facilitate the circulation of hot air.

5. The inside and outside of the box should always be kept clean. If it is not used for a long

time, it should be covered with a plastic dust cover and placed in a dry room.

6. If there is an abnormal phenomenon during use, please cut off the power supply and get in touch with our company in time!

VII.Packing list

No.	Name	Qty.
1	Instruction manual	1
2	Packing list	1
3	Certificate of conformity	1
4	Transformer oil corrosive sulfur tester	1
5	Accessories(250ml)	4
6	Glass bottle	2
7	Fuse	1
8	Electrolytic copper sheet	1
9	Nitrogen decompression table	3
10	Glass tube	2