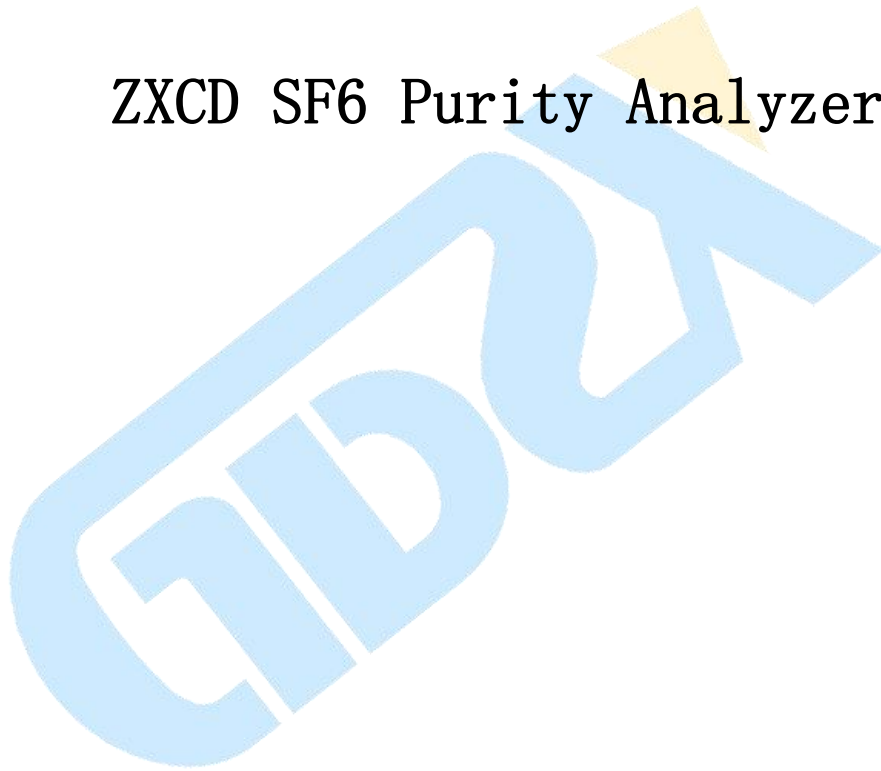


ZXCD SF6 Purity Analyzer



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Safety Precautions

If you are using this product for the first time, please pay attention to the following:

At the beginning of measurement, first open the needle valve on the instrument measuring pipe, and then adjust the flow with the flow valve on the panel. If the measurement is finished, the operation will be reversed.

When the instrument is not used for a long time, there will be some air left in the test pipe and air chamber. Therefore, during the first test, the residual air will affect the test speed, because the impurities in the air must be removed before the tested SF6 gas reaches the balance. So we will find that when we test the second SF6 Electrical equipment and measure it later, the speed will be very fast (1-2 minutes).

In case of high temperature, we suggest to arrange the measurement time as far as possible when the temperature is low in the morning, because the higher temperature will affect the accuracy of measurement.

In the working environment, the product may cause radio interference. In this case, it may be necessary for users to take practical measures for their interference.

Please read and keep this manual for future reference.

Check whether the equipment is abnormal before opening.

I 、 Product Characteristics

1. Self calibration: the sensor probe can automatically calibrate the zero point, automatically eliminate the system error caused by zero point and drift, and ensure the accuracy of each measurement.
2. Easy operation, large touch LCD screen.
3. Fast gas saving: after starting up and entering the measuring state, the time for each purity measurement is about 2 min.
4. Self locking joint: the original imported self-locking joint is adopted, which is safe and reliable without air leakage.
5. Data storage: it adopts large capacity design and can store up to 1000 groups of test data.
6. Clear display: the 5-inch large touch LCD directly displays the current purity, gas flow, ambient temperature, ambient humidity, time and date, etc.
7. The built-in USB interface can be connected with the PC, and the internal data of the instrument can be uploaded to the computer through the supporting software for data analysis.
8. Built in large capacity rechargeable lithium battery, which can work continuously for more than 10 hours in one charge.

II 、 Technical Parameter

purity	measuring range	0 % ~ 100 %
	measurement accuracy	±0.5 %
	response time	<2 minutes

Intake pressure	0 ~ 1.0 Mpa
flow	0.01 ~ 0.5 L/min
ambient temperature	-40 °C ~ +60 °C
Ambient humidity	0 ~ 100% RH
Power Supply	AC 100 ~ 240V 50Hz/ 60Hz
	Built in high capacity lithium ion rechargeable battery
Battery performance	Charging time: 8 hours; use time more than 10 hours.
working temperature	-30 °C ~ +70 °C
size	280 × 150 × 300 (mm)
weight	5 kg

III、 Operation Method

1. Connecting SF6 devices

Connect the screw end of the measuring pipe with the switch joint, and tighten it with a wrench;

Close the flow regulating valve on the front panel of the main engine;

Insert one end of the quick connector on the test pipe into the air inlet on the instrument;

Connect the exhaust pipe to the air outlet.

2. Startup initialization

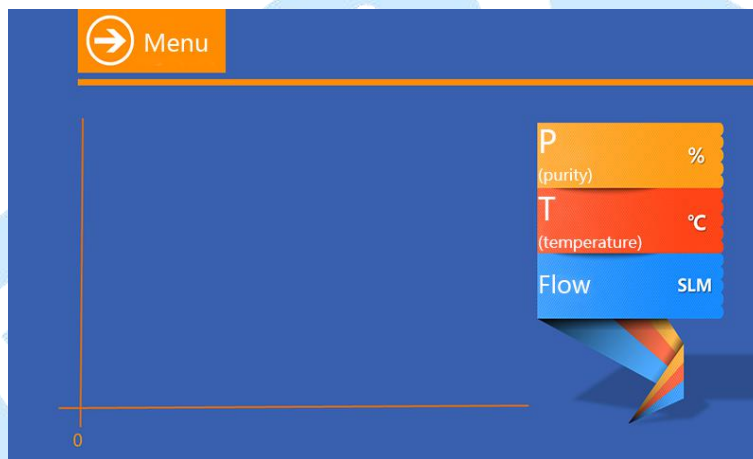
Turn on the power switch of the instrument, and the instrument enters the process of initialization and self calibration.

3. Check power

When using the internal battery for power supply, the upper right corner will display the battery capacity. If the battery capacity shows the red power shortage sign, please charge it as soon as possible before continuing to use.

This instrument can be used while charging, but the charging time will be greatly extended.

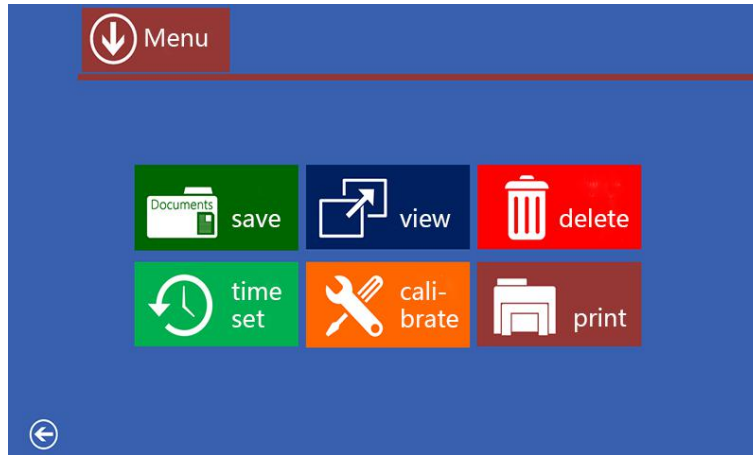
4. Start measuring



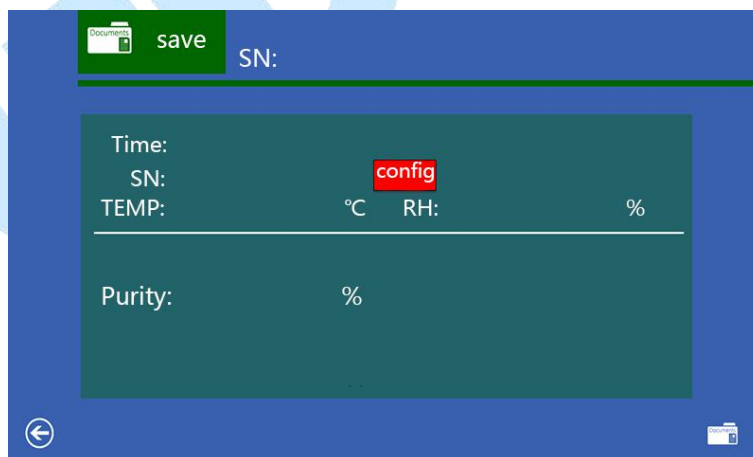
- 1) When the power is turned on, the instrument will initialize automatically. After self calibration, it will enter the measurement state automatically.
- 2) Confirm that the high-precision control valve on the instrument is closed, and test the quick plug of the pipeline.
- 3) Connect the other end of the test pipe to the air supply port (or test port) of the equipment to be tested.
- 4) At this time, adjust the control valve on the front panel of the solar term before adjusting the gas flow rate.

5) When measuring the purity of SF₆, adjust the flow to about 0.3 SLM (standard liter per minute).

5. Store data

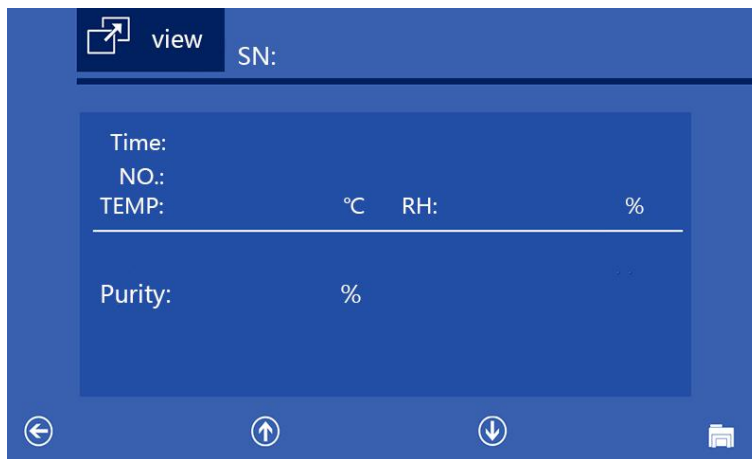


After the measurement data of the equipment is stable, you can save the data, press the "menu" text on the screen, call up the main menu interface, select "print data", you can print out the current test data, select "save data", you can enter the data saving interface.



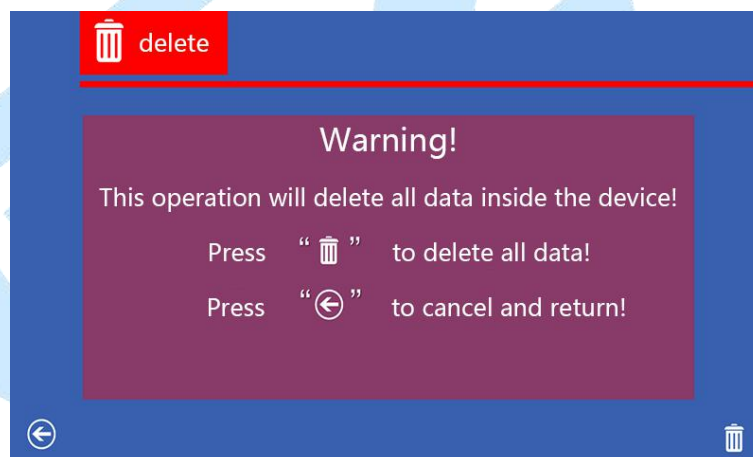
Press the red "configuration" button to input the test number. After confirmation, press "save data" in the lower right corner to save the current data to the instrument. The instrument can save up to 1000 pieces of data.

6. View data



Select "view record" function in the main menu interface. Enter the history view interface, press the "↑" and "↓" arrows at the bottom, you can turn records up and down, and press the right down button to print the currently viewed history.

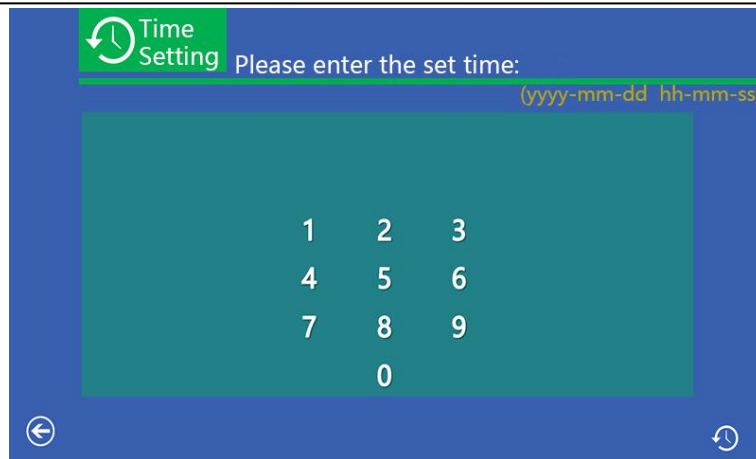
7. Delete data



Select "delete data" function in the main menu interface to enter the delete data interface. At this time, press the trash can icon to confirm the deletion of all data. Press the arrow in the lower left corner to undo the deletion and return to the main interface.

(Note: data cannot be recovered after confirming deletion)

8. Time Setting



Select the "modify time" function in the main menu to enter the time modification page. According to the above format, enter the current time, and press the right-click time modification button to finish the modification. Press the "←" arrow to cancel the modification and keep the original time unchanged.

9. Calibration data

Because of changing the calibration data at will, it will seriously affect the use of the instrument. So we do not open the data calibration function. If necessary, please contact our technical support

10. After measurement

- 1) Close the high-precision needle type regulating valve on the instrument.
- 2) Remove the adapter from the SF6 Electrical equipment.
- 3) Remove the quick plug between the test tube and the back of the instrument.
- 4) Repeat the above steps to test the next data.
- 5) After all tests are completed, turn off the power.

IV、Matters needing attention

1. The instrument shall be placed in a safe position to prevent damage and violent vibration.
2. The instrument shall be charged in time before use.
3. When charging, just connect the power cord to the AC socket without turning on the power switch, and the instrument will automatically charge. Generally, the charging time is more than 10 hours.
4. High capacity lithium battery is used inside the instrument because of its characteristics. Therefore, it is recommended that the instrument be able to power every 1-2 months when it is not used for a long time. To keep the lithium battery active.
5. The instrument shall not be put into the aluminum alloy packing box, and shall be placed on the test bench or instrument rack to prevent dust and moisture.
6. The instrument shall be calibrated with standard gas once a year. It can be sent to the manufacturer or authorized unit for calibration to ensure the accuracy.

5.、Common faults and troubleshooting

fault	Possible reasons	processing method
No change in purity value	Gas not entering detector	Check the air circuit connection to see if the needle valve and flow valve are open

	Open circuit of sensor connecting wire	Return to factory for inspection
Low purity value	Gas leakage	Use the leak detector to check whether the air circuit leaks
	Reduced sensitivity	Return to factory for calibration
	Sensor failure	Return to factory for maintenance
Charging indicator is not on	Circuit fault	Check circuit
	Battery voltage too low	Charge
Buzzer does not sound	Buzzer failure	Replace buzzer
	Circuit fault	Check the buzzer circuit
The buzzer keeps ringing	Circuit fault	Inspection instrument
	Sensor output line loose	Check the sensor cable
LCD no display	Poor LCD connection	Check the connector
	Voltage below 5.8V	Charge or replace the battery
	Circuit fault	Return to factory for maintenance

VI、 Common faults and troubleshooting

NO.	Name	Qty	Remarks
1	Host	1set	
2	Inflatable pipe with needle valve	1pc	
3	Outgassing pipe	1pc	
4	charger	1pc	
5	Transition joint (option)	1pc	8
7	manual	1pc	
8	Test report	1pc	
9	Certificate / warranty card	1pc	