

**HZSF-801
SF6 Purity Analyzer**

User Manual

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Note: Please warm up for 2 minutes before starting the test. When testing, please slowly open the flow valve on the instrument to control the flow between 0.1-0.3L / M!

I. Technical Characteristics and Parameters

1、 Technical characteristics

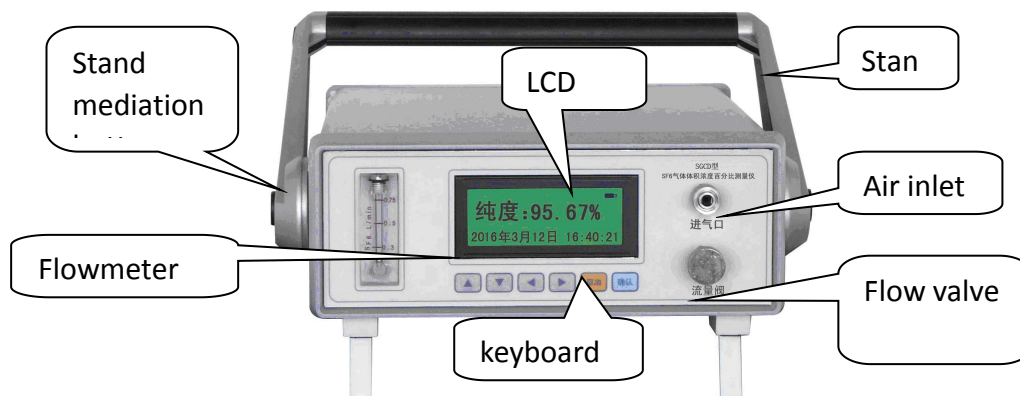
- ✧ Portable design: The instrument is lighter, easier to carry and use.
- ✧ Fast measurement: There is no need to wait after the instrument is turned on, and the measurement is performed immediately to obtain the purity value quickly.
- ✧ Fast gas saving: The gas consumption is only about 0.5L (101.2kPa) during measurement.
- ✧ Self-locking joint: The self-locking joint imported from Germany is safe, reliable and free of air leakage.
- ✧ Data storage: Large-capacity design can store up to 100 sets of test data.
- ✧ Clear display: The LCD screen directly displays the purity value, time and date, battery power and other content.
- ✧ RS232 interface: It can be connected to a serial printer for data printing.
- ✧ Built-in power supply: Built-in large-capacity rechargeable lithium battery, which can work continuously for 10 hours at a time.

2、 Technical parameters

Purity	Measuring range	0%~100%
	Measuring accuracy	±0.5%
	Measuring time	<2 minutes
Ambient temperature	-40℃ ~ +60℃	
environment humidity	0~100% RH	
power supply	AC 220V	
	Built-in rechargeable battery	
Battery performance	Charging time is more than 20 hours and can be used for 10 hours	
Weight	3 kg	
Dimension	250×100×300mm ³	
Operating temperature	-30℃ ~ +50℃	

II. Instrument Panel Description

1、Front panel



Note: Press the bracket adjustment buttons on both sides at the same time to adjust the angle of the bracket.

2、Rear panel



3、LCD screen



III.Measurement Methods

1. Connect SF6 equipment

Connect the threaded end of the measuring pipe to the switch connector, tighten with a wrench, and close the needle valve on the other end of the measuring pipe;

Then insert one end of the quick connector on the test pipe into the sampling port on the purity meter;

Connect the exhaust pipe to the air outlet.

Finally, connect the switch connector to the measurement interface of the SF6 electrical equipment and tighten it with a wrench;

2.Check the power

This instrument is recommended to use AC power first.

When using DC power, please check the battery level displayed in the upper right corner. If the power level is lower than about 20%, please turn off the battery and continue to use it.

3.Start measuring

First fully open the needle valve on the measuring pipe of the instrument, then adjust the flow with the flow valve on the panel, adjust the flow to about 0.2L / M, and start measuring the purity of SF6.

Measure for 1 ~ 2 minutes, you can read or save after the data is stable.

4.Storing data

After the equipment measurement is completed, you can save the data in the instrument and press the "OK" key to call up the operation menu. For details, see the next section.

5.Measure other equipment

After a device measures, close the needle valve on the measuring pipe and the regulating valve on the purity meter. Remove the adapter from the SF6 electrical equipment. If you need to continue measuring other devices, follow the steps above to continue measuring the next device.

6. End of measurement

After all equipment measurements are completed, turn off the power of the purity tester.

IV.Menu Operation

After starting up, it will automatically enter the measurement page (as shown in the figure), and press the enter key to enter each function menu.

1 Keep records
2 View records
3 Delete records
4 Modification time
5 Reset
Calibration (up key + cancel key)

1. Keep records

The test is completed. If you need to search the test data in the future, please save the record first. After entering this menu, you can number the device and save the record.

2. Check the records

You can view and print previously saved records.

3. Delete records

You can delete previously saved records.

4. Change the time

Modify the system time, date and year.

5, Reset

After the completion of a test, it is better to flush the internal pipeline with N₂ (the flushing method is consistent with the measurement method, and pay attention to control the flow rate within 0.5PLM). When flushing, the value on the main interface will rapidly decrease to 0.0%. If you want to re-calibrate the instrument, please perform the zeroing operation first.

6. Calibration (This is a hidden function. When "1 Save Record" is selected, press

the Up and Cancel keys simultaneously to bring up this interface)

Do this if the instrument has been in use for a year or if recalibration is necessary, otherwise do not perform this operation. Before calibration, please prepare N2 and SF6 gas with standard purity (such as 95.8% purity SF6 gas, hereinafter referred to as standard gas). Connect one end of the test pipe to the standard gas cylinder through the pressure reducing valve, and insert the other end into the instrument inlet. Check whether the flow valve, the needle valve on the pipeline, and the pressure reducing valve are all closed. If they are not closed, please close them first; when the instrument is turned on, the preheating is completed and the measurement interface is automatically entered, press the "OK" key to enter the menu, and then Select the "Calibration" key down to enter the calibration screen (as shown below),

Purity calibration
Vad: X.XXX
Val: 00.0%

Open the pressure reducing valve, set the output flow of the cylinder to within 0.2MPA, and then open the needle valve in an appropriate amount, and then adjust the flow valve to 0.2LPM. At this time, the value behind Vad will increase continuously. When it is unchanged, press the "OK" key twice to enter the calibration procedure. At this time, the first zero after P will flash. Use the up and down keys to increase or decrease the number. Use the left and right keys to select the number of digits. At this time, you should change 00.0 to 95.8 and press the "OK" key once, the calibration is completed, and then press the "Cancel" button, you can see that the purity value appearing on the main measurement interface is basically close to the nominal value. Access can be recalibrated. After calibration, please flush it with N2. The method is the same as the measurement method.

7、Start testing

In the main menu state, press the "Up" and "Down" keys to select "Start Test" and press "OK" to enter the measurement data page. The instrument will start to measure the purity of SF6 in real time and display it.

Users can click "OK" to enter "Save Page" on this page. The user can enter the device number (five digits): use the "up" and "down" keys to increase the value, and the "left" and "right" keys to adjust the number of data digits.

After entering the number, press "OK" to save the data. Press the "Back" key to return to the previous page without saving data.

8. Historical data

In the main menu state, press the "Up" and "Down" keys to select "History Data", press "OK" to enter the historical data page, and press the "Up" and "Down" keys to select to view the first record and the last record, respectively. , Press the "up" and "down" keys to view the data.

9.Set time

In the main menu state, press the "Up" and "Down" keys to select "Set Time" and press "OK" to enter the Set Time page.

The time value can be decreased or increased by the "Up" and "Down" keys, and the "Left" and "Right" keys can go to the next or previous modification field. Press the "OK" key to complete the setting, and press the "Cancel" key to This setting is invalid.

10.Delete records

In the main menu state, press the "Up" and "Down" keys to select "Delete Record", and press "OK" to enter the Delete Record page.

On this page, the user can press "OK" to delete all data, and press "Cancel" to return.

V.Matters Needing Attention

- The instrument should be placed in a safe place to prevent it from being broken and avoid severe vibration;
- Do not measure corrosive gases;
- When adjusting the gas flow, the flow valve should be opened slowly so that the flow indication is about 0.2 liters / minute;
- Before using the instrument, it should be charged in time. When charging, you only

need to connect the power cord to the 220V socket. There is no need to turn on the power switch. The instrument will automatically charge. The charging time generally takes more than 20 hours.