

HZSF-641 SF6 Gas Analyzer



Advice

Respected user:

If you are using this product for the first time, please note the following:

At the beginning of the measurement, first open the flow valve on the panel, then use the needle valve on the instrument to measure the flow.

This device has a built-in large-capacity lithium battery that can work continuously for more than 10 hours when fully charged.

When the integrated tester is left unused for a long time, some air will remain in the test pipe and air chamber. In the first test, the high humidity gas will affect its test speed (for micro water detection). Before measuring the SF6 gas to saturation, it is necessary to take away the moisture in the air. So we will find that when testing the second SF6 electrical equipment, it will be much faster (3-5 minutes).

Thanks for your cooperation!

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I. Technical Characteristics And Parameters

1. Technical Characteristics

The SF6 comprehensive tester integrates the SF6 micro-water meter, the SF6 purity meter and the SF6 decomposition product analyzer into one, and the functions that were originally realized with three instruments are concentrated in one instrument. With one on-site measurement, three indicators can be tested, which greatly saves gas in the equipment. One measurement saves 2/3 gas consumption, and at the same time reduces user workload and improves work efficiency.

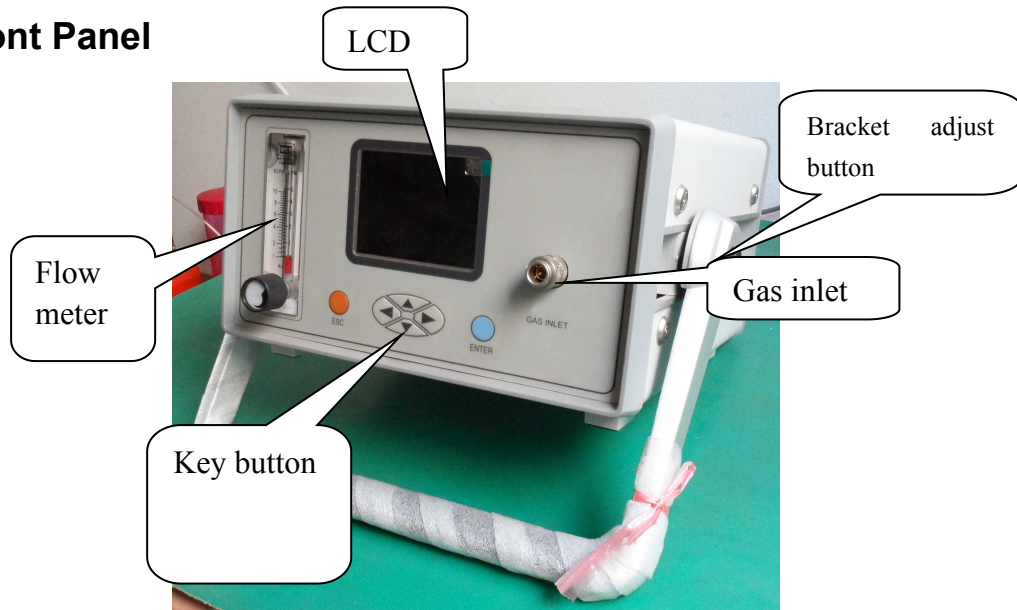
- Fast and gas-saving:** After the start-up into the measurement state, the measurement time per SF6 gas dew point is about 5 minutes, and the measurement time of SF6 purity and SF6 decomposition product is about 2 minutes.
- Self-locking joint:** It adopts German imported self-locking joint, which is safe and reliable, and has no air leakage.
- Data Storage:** With a large capacity design, up to 200 sets of test data can be stored.
- Curve function:** The large screen curve shows the dew point measurement process.
- Clear display:** The LCD screen directly displays dew point, micro water (ppm), SF6 purity, SO2, H2S content ambient temperature, ambient humidity, time and date.
- Built-in power supply:** Built-in 4Ah rechargeable lithium battery, enough for 10 hours of continuous operation.

2. Technical Parameter

Purity	Measuring Range	0%~100%
	measurement accuracy	±0.5%
	measure time	<2mins
Humidity	Measuring range	-80 °C ~ +20 °C
	measurement accuracy	±1°C
	Response time (+20°C)	63% need 5S, 90% need 45s (-60°C ~ +20°C) 63% need 10S, 90% need 240s (-80°C ~ -60°C)
H2S	Measuring Range	0~100ppm
	Minimum detection	≤0.1ppm
	accuracy	±0.5%
	stability	0~100ppm
	Repeatability	≤2%
SO2	Measuring range	0~100ppm
	Minimum detection	≤0.1ppm
	accuracy	±0.5%
	stability	0~100ppm
	Repeatability	≤2%
Ambient temperature	-40°C ~ +60°C	
environment humidity	0~100% RH	
power supply	AC 220V	
	Built-in rechargeable battery	
Battery performance	Charging time: 20 hours; use time is more than 10 hours.	
Weight	5Kg	
Size	250×150×300mm ³	
Operating temperature	-40°C ~ +80°C	

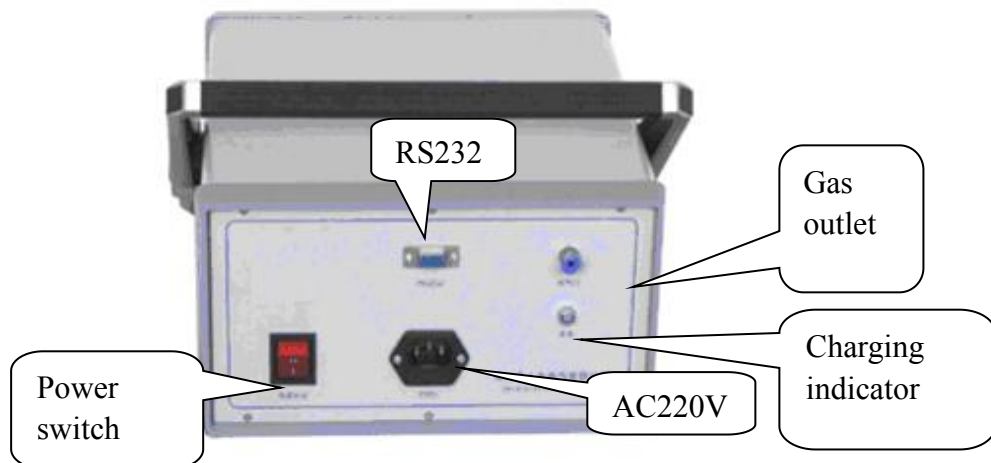
II. Panel Instruction

1. Front Panel



Note: The angle of the bracket can be adjusted by simultaneously pressing the bracket adjustment buttons on both sides.

2. Rear Panel



III.Measurement

1. Connect SF6 Equipment

Connect the threaded end of the measuring pipe to the switch joint, tighten with a wrench, and close the needle valve at 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 comprehensive tester; connect the exhaust pipe to the air outlet;

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

2. Initialization

Turn on the instrument power switch and the instrument enters the initialization self-checking process.

3. Check The Power

This instrument is recommended to use direct current.

When using DC power, please check the battery level displayed in the upper right corner.

If the battery level is lower than about 20%, please turn off and charge it.

4.Start Measuring

After the instrument completes the initialization and self-checking, it automatically enters the measurement state (press the “Left” and “Right” keys to switch between the main measurement page and the dew point measurement page). At this time, open the flow valve on the front panel of the integrated tester, and then adjust the measurement pipe. Needle valve on the top.

The first measurement (sf6 micro water) takes 5 to 10 minutes, and each measurement takes 3 to 5 minutes. Adjust the flow rate to about 0.5L/min during measurement.

5. Store Data

After the device measurement is completed, you can save the data in the instrument, press the “OK” button to call up the operation menu. The specific operation mode is shown in the next section.

6. After the measurement is completed, close the needle valve on the measuring

pipe and the regulating valve on the comprehensive tester. Remove the adapter from the SF6 electrical equipment. If you need to continue measuring other equipment, please do not turn off the power ,follow the steps above to make the next measurement.

7. After the measurement is finished, turn off the power.

IV.Menu Operation

In the measurement state, the function menu can be accessed by the OK button, as shown in Figure 1.



1.Save The Data

In the measurement state, press the “OK” button to enter the function menu, press the “Up” and “Down” buttons to select the “Save Record” menu, and press the “OK” button to enter the Save Data page. When saving the data, you can perform the data according to the device. Numbering.

The device number can be up to five digits. You can increase the value by using the “up” and “down” keys, and the “left” and “right” keys to adjust the number of data digits.

After entering the number, press the “OK” button to save the data and return to the measurement page automatically. Press the “Cancel” button to return to the function

menu. The data will not be saved at this time.

2. View The Record

In the measurement state, you can enter the function menu by pressing the “OK” button, press the “Up” and “Down” buttons to select the “View Record” menu, and press the “OK” button to enter the View Record page.

The display starts from the last saved data.

You can press the “Up” and “Down” keys to scroll through the data.

3. Delete The Record

In the measurement state, you can enter the function menu by pressing the “OK” button, press the “Up” and “Down” buttons to select the “Delete Record” menu, and press the “OK” button to delete all data. Press the “Cancel” button to return to the function menu without deleting the data.

4. Modify The Time

In the measurement state, press the “OK” button to enter the function menu, press the “Up” and “Down” buttons to select the modification time, and press the “OK” button to enter the modification time page. At this time, the year, month, day and time can be modified. And points, the method is as follows:

The “up” and “down” keys can increase or decrease the value, and the “left” and “right” keys can be moved left or right to modify the position.

After the modification is completed, press “OK” to save the modified value and return to the measurement page automatically. Press “Cancel” to abandon the modified value and return to the function menu automatically.

5. Clear (Cancel + Left Button, This Function Is Only Used Before Measurement)

Press the “OK” button on the measurement interface to enter the function menu. Press the “Cancel” button and the “Left” button to enter the data clear page. Press the “OK” button to return to the menu page automatically, then press the Cancel button to return to the measurement interface. Verify that the initial data is zero. If it is not

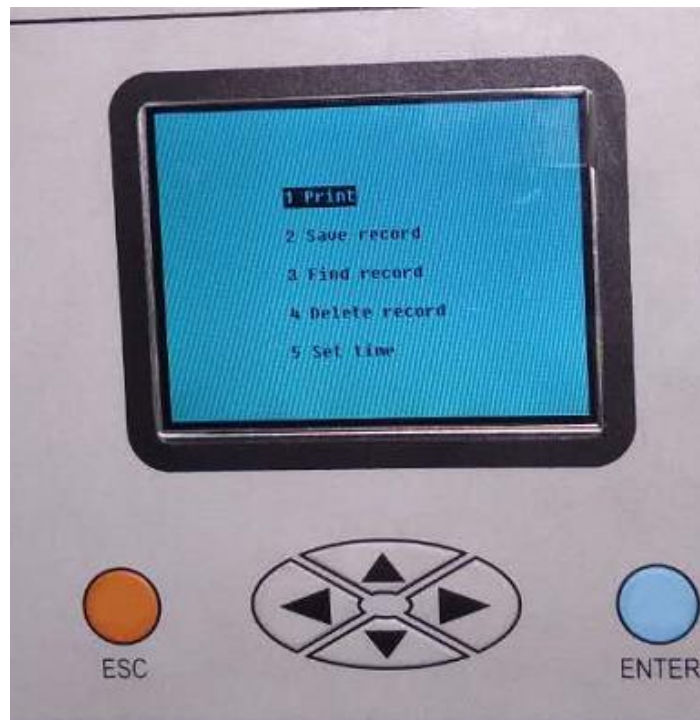
successful, perform the above steps as many times as possible (this function should ensure that there is no corresponding gas in the pipeline);

6. Calibration (Cancel + Right Key, This Function Is Limited To Special Personnel Operations)

7. Dew Point Value Calibration (Cancel + Up Key Combination Use, This Function Is Limited To Dedicated Operation)

Press the “OK” button on the measurement interface to enter the function menu. Press the “Down” button once. When the second item is selected, press the “Cancel” button and the “Up” button simultaneously to enter the calibration interface.

Enter the measured value of the machine on the left side, input the calibration data on the right side, and press the OK key to save it (the two sets of data must be input from small to large)





V. Remarks

1. The instrument should be placed in a safe position to prevent damage and avoid severe vibration.

2. Before using the instrument, it should be charged in time.

When charging, just plug the power cord into the 220V socket. The instrument will automatically charge without turning on the power switch. The charging time usually takes more than 20 hours.

3. When the instrument is not in use, it should be placed in an aluminum alloy packaging box and placed on the test bench or instrument rack to prevent dust and moisture.

4. The instrument is calibrated once a year with standard gas. Can be sent to the manufacturer or authorized unit for calibration to ensure accuracy.

5. When the concentration of SO₂ and H₂S in the test gas is high, the gas remaining in the airway should be removed before the next measurement.

6. When the concentration of SO₂ or H₂S in the detected device exceeds the normal value, it is recommended to measure twice to confirm the result.

VI.Packing List

No.	Item	Qty
1	Main engine	1
2	Gas Inlet pipe	1
3	Gas outlet pipe	1
4	Power line	1