Huazheng®

HZIR-1000
SF6 infrared quantitative detector

User Manual

Huazheng Electric Manufacturing (Baoding) Co., Ltd

Dear user:

Thank you for choosing HZIR-1000 SF6 infrared quantitative detector.

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.Overview

HZIR-1000 SF6 infrared quantitative detector adopts high-speed embedded MCU, Chinese touch man-machine interface, and the operation is simple and clear. The sensor is imported from Germany based on the technical principle of the dual-wave non-dispersive infrared spectrometer (NDIR). The complete hardware and software design of the SF6 gas leak infrared leak detector provides reliable and high-precision performance and maintenance-free features. It also provides functions such as data storage and USB data export. The equipment is stable, reliable and high-precision performance .

II.MainTechnical index

1. Technical parameters:

(1) Minimum detection value: 0.1ppm

(2) Detection range: 0～1000ppm

(3) Response time: <3 seconds

(4) Recovery time: <5 seconds

(5) Reference error: ≤±1%[0~1000] ppm ≤±5%[1000~5000] ppm

(6) Repeat error: ≤2%

(7) Display mode: 3.5-inch color touch screen display

(8) The detection length of the probe gun: straight rod type 130mm

(9) Continuous working time: ≥8 hours

(10) Instrument power: four-cell lithium battery

(11) Charging voltage: 8.4 volts, photoelectric time 5 hours (continuous charging does not exceed 12 hours)

(12) Operating environment: Temperature: -10℃～50℃

Relative humidity: ≤95%

(13) Weight of the whole machine: 0.3 kg

(14) Volume: length×width×height=230mm×120mm×60mm

(15) Outer box: length×width×height=450 mm×230 mm×130mm

III. Main functions and features

(1) The principle of infrared dual spectrum is used to replace imported infrared detectors;

(2) Unique anti-stripping wristband, which can be operated with one hand.

(3) The first flashlight function, which is convenient for on-site inspection in the case of insufficient light.

(4) With on-site anti-jamming special programs and data protection functions;

(5) Imported infrared sensor, quantitative detection, high precision;

(6) 8000 sets of test data can be saved inside and exported through USB interface;

(7) Four-cell lithium polymer battery, reliable and explosion-proof;

(8) The first temperature control system for the whole machine;

(9) Advanced power management system, automatic standby and shutdown;

(10) Compact structure, beautiful appearance, concise content and simple operation;

IV. Method of operation

1. Turn on

Press the power button, the display is on, and the interface shown in Figure 1 appears:

Figure 1

(Caution!! After each measurement, the power must be turned off manually, otherwise, the battery will be exhausted.)

At this time, the left indicator light is on (long light), and the right indicator light is flashing. After 5 seconds, the interface shown in Figure 2 appears:

Figure 2

After 5 seconds, the display backlight will automatically go out, the left indicator will be on (long on), and the side indicator will flash, this is the standby state.

(1) Shortcut key operationWhen the interface shown in Figure 2 appears after power-on, press the measurement key and the interface shown in Figure 3 appears:

Figure 3

Automatically delay preheating for 90 seconds (countdown, the sensor itself requires. It must be preheated to enter a stable working state.)

When the timer is 0 seconds, the built-in air pump is working, the left indicator light, the interface shown in Figure 4 appears:

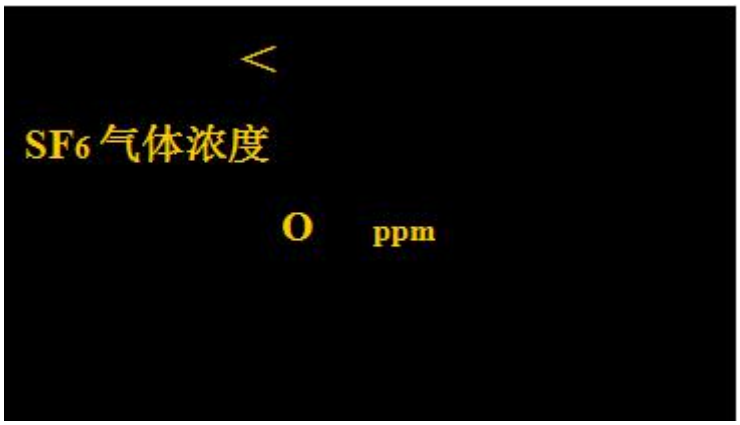

Figure 4

The ">,<" symbols appear on the interface to change alternately, indicating that it is in the measurement state and the measurement can be performed. After a set of data is measured, press the measurement button, and the internal air pump will stop. If you need to measure the next data, press Measure button, the air pump inside the machine starts and starts measuring again, and it can cycle like this. (Attention!!!!!Do not turn off the power on key during the entire measurement cycle, as this will require reheating for 90 seconds before the measurement can be performed).

The entire measurement time can be set at the initial time, and the measurement will be automatically stopped when the time comes.

During the measurement process, according to the concentration alarm limit set by the user, the screen will appear: SF6 gas high-risk concentration alarm voice prompt, and the buzzer will sound the alarm.

After the measurement is completed, you need to save the measured data and press the save button (note! This save button only saves the data to the memory, It will be lost when shut down, it needs to be saved permanently. Enter the menu map and select permanent save. The data will be automatically saved after the next startup Read into memory, data can save up to 8000 groups.

(2) Touch key operation

After powering on, after the interface shown in Figure 2 appears, touch anywhere on the screen, the interface shown in Figure 5 appears:

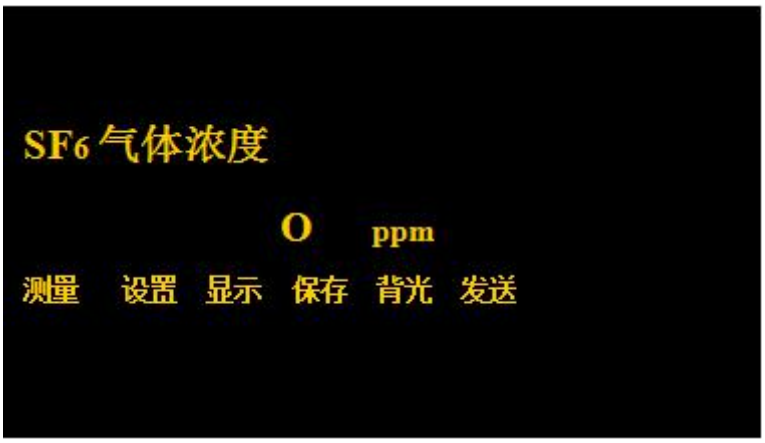

Figure 5

The user operates on the off touch key as needed, the backlight will automatically go out after 5 seconds, and the red indicator light on the right side will flash, indicating the standby state, and the interface in Figure 2 will be restored after touching the screen.

Touch the measurement key: measurement can be performed. The operation procedure is the same as the shortcut key measurement procedure.

Touch the setting key: the interface shown in Figure 6 appears:

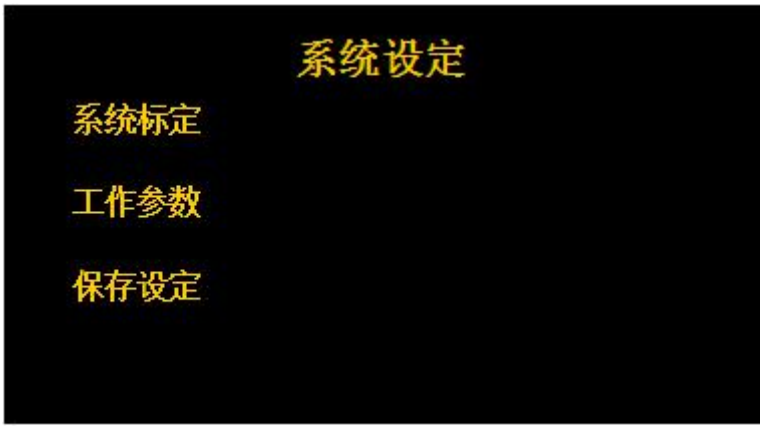

Figure 6

Users can make initial settings according to their needs, and the setting content is as described above.

Touch the display key: several interfaces in Figure 7 appear (as follows:)

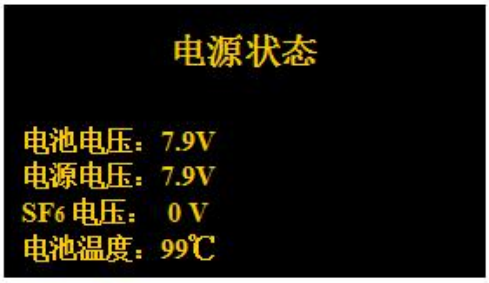

Figure 7-1

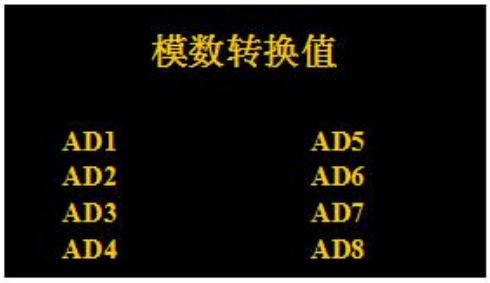

Figure 7-4

Figure 7-2

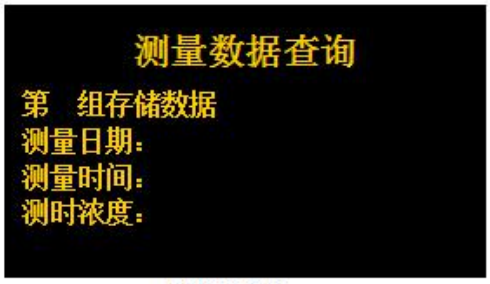

Figure 7-5

Figure 7-3

Figure 7-6

Touch the backlight key: you can change the brightness of the backlight, there are five adjustments (note! Not in the measurement state, the shortcut save key, you can also change the backlight brightness) after the backlight is automatically turned off, press the shortcut key and any part of the screen can restore the backlight In the measurement state, the backlight will not be completely turned off, only the brightness will be reduced. When the help button is touched on the screen, a simple instruction for using the instrument appears for the user to read.

2. Shut down

After the measurement is over, press the power switch key, the display does not display, the touch screen does not show up, the power indicator is off, and the shutdown is completed.

V. Matters needing attention

(1) This equipment performs operational function verification every two years.

(2) In order to ensure the personal safety of the operator and the safety of the equipment, the terms in the instructions for use must be observed.

(3) This equipment is a special tool for detecting SF6 gas. It is forbidden to detect other gases and use illegally.

(4) This device cannot be used in a working area where explosive gas mixtures have not been proven.

(5) The instructions of the operation manual are kept with the equipment at all times and kept by the operator.

(6) The operator must be familiar with the technical instructions and instructions in the manual.

(7) The operator must be familiar with the safety measures, safe operation and cleaning and maintenance of this equipment,

(8) Engineers and technicians with certain professional knowledge are required to operate this equipment.

(9) The operator must read this manual thoroughly and understand the importance of SF6 gas measurement safety.

(10) The personnel managing this equipment must be serious, reliable, responsible and possess certain professional knowledge.

(11) People who are drunk, whose thinking is disturbed, or who have not received professional training are also prohibited from operating this equipment.

(12) You must be responsible for the consequences if you change or disassemble the equipment without authorization, or damage it in violation of the operating regulations.