



Nuclear Radiation Detector

HFS-P3

Operation Manual

I. Product Profile

The Model HFS-P3 product is one small with high sensitivity radiation dosimeter. It is mainly used to monitor X, β , and γ rays. It configured a white light OLED screen, visual at night. It has both sound and light alarm functions. And the alarm threshold can be set by the user. The main technical index of this unit is in accordance with national and international standards.

II. Main Characteristics

- Real-time measures the dose rate and calculates the accumulated dose and average value at the same time.
- The measurement error is small.
- Real-time dose rate alarm threshold and total dose alarm threshold all can be set.
- It has a sound and light alarm.
- It starts measuring after turning it on, simply and easily operation.
- Small in size and light in weight, the pen-style design is easy to carry around
- Built-in rechargeable lithium battery, it can last 50 hours after being fully charged.
- It will continuously measure when the display screen is sleeping.
- White light OLED display screen design, displayed more clearly, also able to normally display at night.
- It has a sensor fault reminding function (the display screen display "Device Fault").

III. Technical Parameters

- Sensor: 48mm GM counting tube
- Measure range: 0.08uSv-50mSv
- Measure precision: -17%...+25% based on ^{137}Cs γ
- Working environment: temperature -20°C...50°C; humidity <95% RH without dew
- Size: diameter 15.3mm, length 108mm

- Weight: 19g
- Durable time: 50 Hours (continue measure, screen dormant)
- Charging time: 2-3 hours
- Charging Port: TYPE-C port (The color of the LED will remain green when the battery is charging, once at 100% the LED will turn off.)
- Alarm responding time td: <10s

IV. Menu Instruction

DOSE RATE: means instantaneous dose rate

00:00: 05: means measuring time, the max time is 100 hours

DOSE: means accumulated dose

AVR: means the average dose rate

MAX: means the max dose rate

DOSE RATE Alarm: set the alarm threshold of the real-time dose rate

DOSE Alarm: set the accumulated dose alarm threshold

V. Keys Instruction

Power button (On the right side): Long press it for about 3 seconds to turn on/off the device.

It serves as a function key when short press it.

Menu button (On the left side): used in menu page turning and alarm threshold adjustment.

VI. Alarm Setting

Power on the device, the lock icon "🔒" will display on the screen.

A. Here are the steps for turning off the lock icon:

1. Press and hold the Menu button first;
2. Press the Power button once, the lock icon will disappear and the unit is unlocked.

*****Only allow setting the alarm parameters after unlocked.**

B. Set the real-time dose rate alarm threshold (DOSE RATE Alarm):

1. Press the Menu button, and switch to the DOSE RATE Alarm page.

2. Press the Power button, then the alarm value will flash.
3. Switch the dose rate alarm value by pressing the Menu button. (Alarm range 0.6 - 300uSv/h)
4. Press the Power button to save the dose rate alarm value.

C. Set the accumulated dose alarm threshold (DOSE Alarm):

1. Press the Menu button, and switch to the DOSE Alarm page.
2. Press the Power button, then the alarm value will flash.
3. Switch the dose alarm value by pressing the Menu button. (Alarm range 1 - 3000uSv)
4. Press the Power button to save the dose alarm value.

D. Follow these steps to turn on the lock icon if necessary:

1. Press and hold the Menu button first;
2. Press the Power button once, the lock icon will display and the unit is locked.

VII. Safety Reminding

Instrument unexpected fallen	Please confirm whether the radiation dosage indicates values are normal and whether there are any updates. Please don't place the device in high-strength radiation places if found abnormal.
When the unit shows the message "Equipment already damaged"	Please don't apply the unit in high-strength radiation places if found abnormal.
The operating environment contains inflammable and exploding gas or powder dust	Please don't apply the instrument in an inflammable and explode gas or powder dust environment.
Waterproof	Please attention that the waterproof grade of the unit is IP40, and cannot be exposed to rain or water spraying.
Energy responding	For the X-ray, It can only be used as a reference for testing radiation intensity, unable to meet energy responding requirements.

GZAIR provides full after-sales service to all customers. If you have any questions or concerns, please email us via gzairstervice@outlook.com and we will answer you within 24 hours.