

Geiger-Muller counter BR-6B

USER MANUAL

1 Overview

BR-6 nuclear radiation detector using precision military grade GM tube as the core sensor with high sensitivity, wide measurement range, long life and other advantages. Can be widely used in materials inspection, environmental testing, hospital radiology protection, radioactive drug screening and other occasions.

In 1908 the German physicist Hans Geiger and the British Rutherford jointly designed the world's first Geiger counter, 20 years after Geiger and his student Miller to further improve the counter so that it can detect all ionization radiation.

This is the famous Geiger - Miller counting tube (referred to as GM tube), because of its high sensitivity and high detection range has been widely used in nuclear physics, medical research, environmental monitoring and industrial fields.

2 Technical indicators

1. Can detect the type of β , γ , x-ray.
2. Sensor type: GM tube
3. Energy range: 20 keV ~ 3.0 MeV $\pm 30\%$ (137 Cs-)
4. Relative inherent error $\leq \pm 10\%$
5. Sensitivity: 80 cpm / μ Sv / (Cj-60)
6. Maximum Dose Equivalent: 99.99 μ Sv / h
7. Using the ambient temperature -25 °C ~ +45 °C, relative humidity $\leq 95\%$ (+45 °C)
8. Power supply: 5 batteries or rechargeable batteries, when the need for long-term monitoring available USB power supply. (USB does not charge the internal battery).

3 Operating instruction

1. Power on the ON button to boot, boot automatically after the prompt interface. Press the triangle key to enter the real-time test interface.
2. Off press the OFF button to shut down, the screen can be released after the release; this machine is the hardware shutdown, power consumption after shutdown 0.
3. Triangle start key is used for mean measurement. In the natural environment, there is background radiation (background radiation), which fluctuates within a certain range. The blue font displayed at the top of the

screen is a real-time dose rate updated in seconds, which is characterized by large fluctuations, faster updates, and strong real-time performance. The middle of the red font is the mean display, which is the mean of the dose rate over time. When the detection of an item or the environment by pressing the start button (at this time cannot move the tester) will enter the mean measurement state. After the end, the measurement results are displayed. The trend graph below shows the value of each instant in the mean measurement process. The mean value of the measurement is characterized by a high accuracy of the effective dose of the effective dose equivalent rate, but takes longer.

4. Speaker key Used to select the sound source of the device. Press once to switch the source. When the rain shows the sound for the real particles hit the sound, that is, each particle hit a sound. When the display of small speakers icon for the artificial alarm (this state only to reach the alarm threshold sound).
5. Scale key (right key) is used to switch the alarm threshold. Four optional 0.5, 1.0, 2.0, 5.0 when the sound source is selected for the speaker state when the threshold set to be effective.

4 Special precautions

The internal sensor is a glass device, is a fragile product, falling, strong vibration, can cause the sensor to break and lose the function.

When the battery is not used for a long time to remove the internal battery to prevent leakage of equipment damage.