MightyOhm

USAGE INSTRUCTIONS

How to use it!

Easy, turn on the switch and listen for clicks! Watch the LED, it will flash every time a beta particle or gamma ray hits the tube! (Note: The tube that comes with the kit is not sensitive to alpha particles.)

If you get tired of hearing the clicks, you can push the button S2 to MUTE the sound.

The PULSE connector (J6) has the following pinout:

1. VCC (nominally 3V)

2. pulse output – a short (100us) active high pulse every time the geiger tube fires

3. GND

Logging:

To connect your computer to the serial port (J7), you will need a USB-serial converter that operates at 3.3V TTL levels. The serial header is set up to work with the common FTDI-232R-3V3 serial cable.

Data is sent over the serial port at 9600 baud, 8N1.

The data is reported in comma separated value (CSV) format:

CPS, #####, CPM, #####, uSv/hr, ###.##, SLOW|FAST|INST

There are three modes. Normally, the sample period is LONG_PERIOD (default 60 seconds). This is SLOW averaging mode. If the last five measured counts exceed a preset threshold, the sample period switches to SHORT_PERIOD seconds (default 5 seconds). This is FAST mode, and is more responsive but less accurate. Finally, if CPS > 255, we report CPS*60 and switch to INST mode, since we can't store data in the (8-bit) sample buffer.

The largest CPS value that can be displayed is 65535, but the largest value that can be stored in the sample buffer is 255.

***** **WARNING** *****

This Geiger Counter kit is for EDUCATIONAL PURPOSES ONLY. Don't even think about using it to monitor radiation in life-threatening situations, or in any environment where you may expose yourself to dangerous levels of radiation. Don't rely on the collected data to be an accurate measure of radiation exposure! Be safe!