Environmental
Instruments
Canada Inc.

CT008-F

A rugged, affordable, high range radiation contamination detector that measures alpha, beta and gamma, suitable for emergency situations

Features

- Alpha, beta, gamma detector
- Compact, lightweight
- Response range from 0 to 20 Sv/h
- Simple single-button local operation with display
- Connects to GammaGuard via Bluetooth Low Energy (BLE)
- State of the art solid state detector
- Rich user interface provided by smartphone display
- Capable of logging data to the smartphone



Introduction

The CT008-F is a compact alpha, beta, gamma detector. This makes it suitable for identifying radioactive contamination. The CT008-F is sensitive enough to pick up the radiation from household items, but can still measure up to dangerous levels. Unlike pancake Geiger-Mueller tube based instruments, it is light, compact, and durable. It uses solid state technology which offers the ability to withstand air pressure changes without rupturing. It is easy to use and connects wirelessly to your smartphone. Pairing with a smartphone provides a rich user interface and allows for time and date stamped data logging with GPS coordinates. The data can be logged to a file on your phone.

The sensor, located on the back of the detector, is covered by an alpha/beta shield. The shield can be closed to take gamma measurements, or opened to reveal the sensor window and take alpha/beta/gamma contamination readings. The shield also keeps the sensor safe during transport.

CT008-F is powered by 2 standard AAA batteries.



Specifications

Indicated Use: Contamination frisking, sample counting and surveying

Detector: Plastic scintillator and silicon photomultiplier

Measurement Units: User selectable (µSv, mRem or counts.)

Window: 4.7 cm^2 active area, 3.8 cm^2 open area, aluminized mylar protected by aluminum screen

Sensitivity: ~ 260 CPM/µSv/h (Cs-137)

Range: 0 to 20 Sv/h, 2000 Rad/h, 5,200,000 CPM

Resolving Time: 18 µs

Response Time: User selectable from 1 to 30s or Auto. Display updates every second

Background: ~15 CPM

Local Display: 2.2 x 1.2 cm OLED. Font size automatically adjusts to display as many digits as needed.

Local Controls: One push button – short press (<2s) to toggle screens; long press (>2s) to enter/exit Sleep mode

Wireless Communication: Bluetooth Low Energy connecting to GammaGuard.

Batteries: 2 standard AAA batteries

Operating Time: 300 hours connected to GammaGuard, 130 hours if using local display.

Size: 5.5 × 9.5 × 2 cm (2.2 × 3.7 × 0.8 in.)

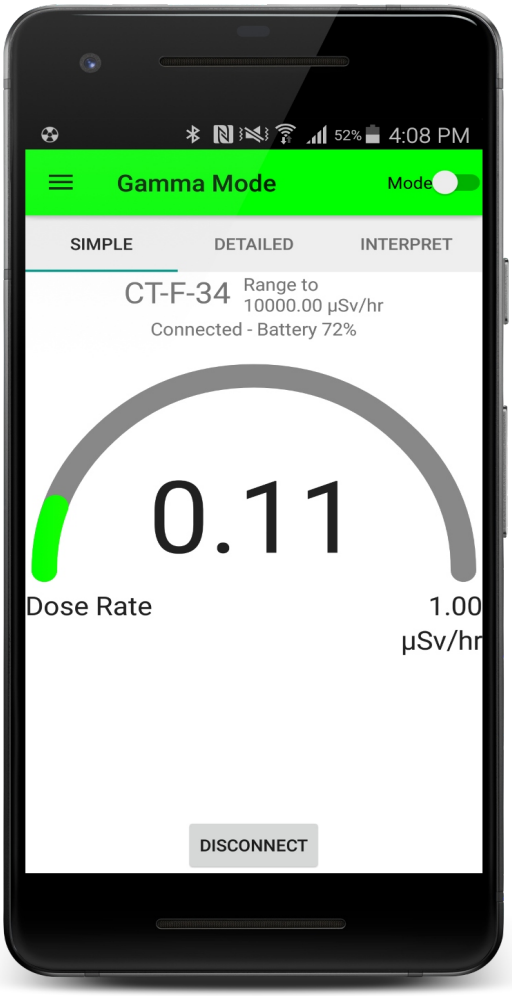
Weight: 75 g (including batteries)

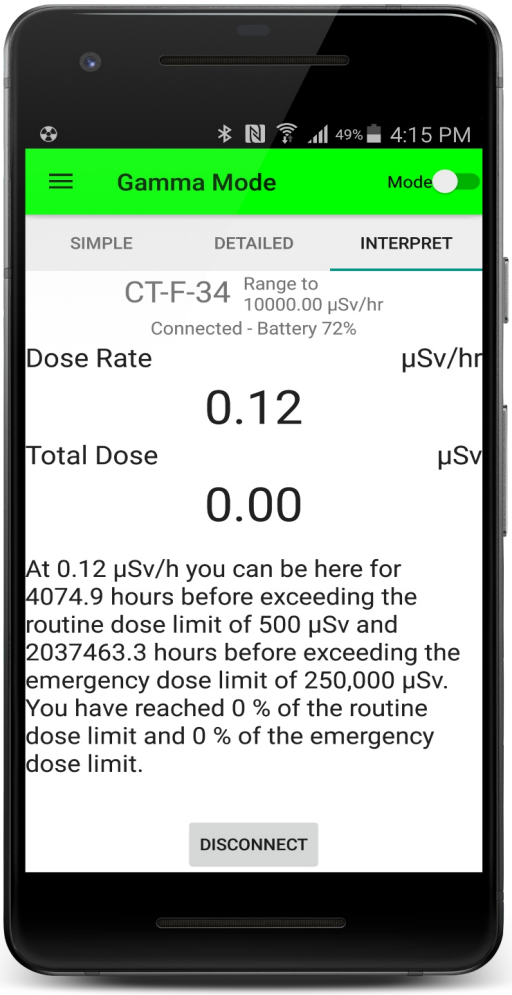
The GammaGuard System

The CT008-F, like many of our other radiation detection instruments, connects to our smartphone application, GammaGuard.

The GammaGuard App:

- Provides a large, easy to read display.
- Has the ability to interpret readings for non-technical users.
- Uses one consistent user interface across all our hand-held detectors, so that there is only one system to learn.
- Can automatically save data to a file and upload data to a central database, facilitating coordinated incident response.
- Alerts the user to elevated radiation levels, even when you are performing other tasks as long as GammaGuard is running in the background.
- Displays the radiation level remotely when the detector is up to 40 m away.
- Changes background from green, to yellow, to red, to indicate low, elevated, and high levels of radiation.





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