Mil-Water Safety Test System

Ultra Low Range Model – SSS-22LRX

Description

The SSS-22LRX Manual Liquid Scintillation Counting System accurately quantitatively measures Carbon-14, Tritium and most other radioactive materials.

Measures low levels of Tritium even below 20,000 pCi/l, which are Clean Drinking Water Levels.

Measuring Principal

- The most sensitive method of detecting and quantitating Beta emitting isotopes is to intimately mix the sample with liquid scintillation fluor and count each individual scintillation event with a photomultplier counter.
- An energy analyzer further selects the pulses and delivers the true signal.
- USB port for PC interface.
- Optional hard copy printer.
- Detection cell optically coupled to selected photomultiplier tube.
- 3 Cell Cassette system for faster thru-put and easy sample comparison to calibration standard or to background.

Data Analysis and Presentation

Scintillation counts which are detected by PM tubes are processed by a fully adjustable single channel analyzer which is centered on the energy peak of the isotope being measured.

This deletes both higher energy pulses from background radiation and lower energy counts from PM tube or circuit noise.

The pulses are then fed to a digital scaler and optional digital printer. (Thus allowing long count times for measurement of very minute samples as well as completely eliminating artifacts caused by ratemeter time constants.)

USB interface to most scientific or personal computers or data stations.

Specifications

Count Times: 1 sec. thru 100,000 sec (approx. 30 hrs)

Voltage: 0-2000 Volts - fully user settable

Readout: Digital - 6 digit LCD

Outputs: USB Port

Power: AC / Battery; High capacity battery and built-in charger

Optional: Printer

Tritium Sensitity

It is important to see down to the 500 to 1000pCi/l range.

Nuclear Power Plant ground water is typically in the 200 to 500pCi/l range.

We recommend our most advanced, top of the line LSC counter the SSS-LRX

The SSS-2LRX will measure down to

1000 pCi/l in 1 hour 500 pCi/l in 3 hours 200 pCi/l in 6 hours







