

Low Range Portable Liquid Scintillation Counting System

Model SSS-22LR

Description

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 photomultiplier counter.

- An energy analyzer then further selects the pulses and delivers the true signal.
- Detection cell optically coupled to selected photomultiplier tube.
- 3 cell cassette system for faster thru-put and easy comparison sample to calibration standard or to background.
- OPTIONAL: PC interface and hard copy printer.

Data Analysis and Presentation

- Scintillation counts 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 the 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.
- Optional USB interface to most scientific or personal computers or data stations.

Specifications


- **H-3 Sensitivity:** 20,000 pCi/l in 30 min. Below 10,000 pCi/l in 3 hrs.
- **H-3 Gross Efficiency:** >20%, Coincidence efficiency >10%.
- **Count Times:** 1 sec. thru 100,000 sec (approx. 30 hrs)
- **Voltage:** 0-2000 Volts - fully user settable.
- **Readout:** Digital - 6 digit LCD,
- **Outputs:** Standard: Serial port output
- **Optional:** USB Port
- **Power:** AC / Battery; High capacity battery and built-in charger
- **Sample Size:** Accepts standard Liquid Scintillation cassettes 250 ml each cell.
- **Scintillation Fluors:** Accepts most scintillation fluors.
Perkin-Elmer Ultima Gold-LLT is recommended for H-3 counting

Options

- Data logging software, Model # ORO-22P comes with data acquisition cable
- Set of 2 calibrated liquid standards, C-14 and H-3. User must mix TA solutions with liquid scintillant
- USB port or other Interfaces and Outputs: Clear instructions with all interfaces.



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