Portable Liquid Scintillation Counter

Model SSS-22PAL



Features:

- Measures all alpha and beta emitters, including U-238 and U-234
- Alpha and beta separation, including gross alpha and gross beta
- Coincidence counting verification for measuring low-levels of tritium
- Adjustable energy windows can be set to specifically measure any isotope
- · 3-vial sample capacity
- All components enclosed in a rugged, light-proof and weather-proof transit case
- RS-232 Data Output

Application:

The Model SSS-22PAL is a portable liquid scintillation counting system for monitoring a wide-array of radionuclides in various types of samples, including: food, water, soil, etc.

The dual photomultiplier tube detector design utilizes coincidence counting verification, useful for measuring radioisotopes in drinking water down to the lowest standards, including tritium.

Description:

The Model SSS-22PAL utilizes two premium quality photo-multiplier tubes with high-transmission optical coupling to detect all alpha and beta emitters down to the lowest levels. The LAM-10DSC electronics incorporate two single-channel analyzer windows, which are centered on the energy peak of the isotopes being measured and reject all other noise, such as higher energy pulses and low-energy circuit noise.

Furthermore, the dual detector design provides coincidence counting verification, which sorts the pulses and only counts those that were detected at the same time, and thus "verified" as originating from the isotope you wish to measure. This is especially useful for measuring very low levels of alpha-beta radiation, including tritium, which can be hard to detect among circuit noise, background, and other possible contaminants in the sample.



The LAM-10DSC electronics and detector assembly are enclosed in a rugged, light and weather proof, easy-to-carry transit case. It utilizes a 3-vial sample capacity for faster through-put and easy comparison of sample to calibration standard or background. Samples are quickly changed by a rotator knob.

Technical Associates



A Division of the U.S. Nuclear Corporation

W:www.activeradsys.it Tel: 0544 408071 E: info@activeradsys.it Fax: 0544 201477

Active Radsys

Portable Liquid Scintillation Counter

Model SSS-22PAL

Technical Specifications:

Gross Efficiency for H ₃ :	52% or better
Energy Range:	2 keV to 7 MeV
Max. Count Rate:	2,500,000 CPM
Count Time:	1 second to over 10 days, user settable
Voltage:	PM bias voltage 0 -2000 V, user settable
Display:	6 Digit LCD digital readout
Outputs:	Serial pulse output and RS-232 Serial
Detector:	Dual Photo-multiplier Tubes
Sample Size:	Three vial capacity, 20-25 ml
Power:	Rechargeable lithium batteries and AC adapter
Alarm:	Visual: Green LED Pulse Indicator/Red LED Over-range; Audible: Settable Sonalert
Temperature:	0 °C to 50 °C operating
Dimensions:	22" x 16" x 7"
Weight:	18 lbs Total Activity: 4252.9 uCi

Options:

- · T-Acquire Data-logging software
- · Calibrated Liquid Standards
- Additional LSC vials



Technical Associates



XX

A Division of the U.S. Nuclear Corporation

W:www.activeradsys.it <u>Tel</u>: 0544 408071 E: info@activeradsys.it Fax: 0544 201477