

Model α -Scin

Portable Alpha Scintillation Counter



Para Alpha Scintillation Counter Model **α -Scin** is a micro-controller based, economical, stand alone, battery as well as mains operated instrument for Alpha Counting applications. **α -Scin** uses ZnS(Ag) alpha scintillator with aluminized mylar, mounted on photo multiplier tube as nuclear radiation detector. Necessary electronics and high voltage supply are housed in the equipment.

α -Scin is useful for Alpha counting for Health Physics applications in radioisotope laboratories, nuclear reactors, nuclear power plants, environmental survey labs, etc.

α -Scin is supplied with a drawer assembly which enables user to keep 1" or 2" dia samples under the scintillator.



α -Scin uses micro controller for counting, menu display and key board functions. Pulse processing electronics generates the TTL shaped pulses fed as input to the counter. Typical Alpha Counting efficiency is better than 22%.

α -Scin has 8 x 1 line LCD menu display with back-lit facility. Counts up to 999999 are displayed at the end of preset time. Timer can be set in Auto/Manual Mode. During Auto Mode, **α -Scin** counts the pulses for 1 minute time interval and then displays on LCD. In Manual Mode of operation, Start/Stop Key sets the start and end of counting time. In Set Time Mode, preset time set by the user controls counter and after counting is over, counts will be displayed on LCD. Reset Key enables user to clear the counts taken in earlier run.



Specifications (α -SCIN)



α -SCIN-with Drawer Assembly

Counter

- ❖ Micro Controller based counter
- ❖ 8 Character LCD display for counts
- ❖ Counts capacity : 999999
- ❖ Start/Stop/Reset Auto/Manual Switches
- ❖ **Operating Mode : Auto / Manual / Set Time**
- ❖ **Preset Time : 1 Minute (Auto mode) or 1-9999 Minutes in Set Time Mode**
- ❖ Manual mode controlled by Start/Stop Switches
- ❖ Battery Voltage indication, Power ON/OFF switch
- ❖ HV settable between 100 to 1000V, internally
- ❖ Calibration Source holder for 1" dia source
- ❖ Enclosure : Aluminum table top enclosure

Alpha Detector

- ❖ Alpha Scintillation ZnS(Ag), integral assembly with voltage divider on 2" dia PMT
Viewing area : 20 cm², approximately, circular scintillator ZnS screen of 2" dia on 2" PMT
- ❖ Detector Efficiency : > 22 %
- ❖ Background – Less than 25 CPH
- ❖ Drawer Assembly for 1" ϕ or 2" ϕ filter paper measurement (*optionally available*)

Battery Charger (External)

- ❖ 240V AC mains input for 4 Ni-MH batteries

Mechanical

- ❖ Dimensions (Overall) : 70 mm Dia x 280 mm Height
- ❖ Weight : Approximately 3 Kg (Without drawer assembly 1.2 Kg)

Due to continuous R&D, specifications are likely to change without notice

Manufactured by :

**Para Electronics Manufacturing Division
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