

WIDE AREA ALPHA SCINTILLATION MONITOR

TYPE : AM 736W



Technical Data

Wide Area Alpha Scintillation monitor type **AM736W** manufactured and supplied by NUCLEONIX SYSTEMS is provided with drawer assembly to facilitate sample counting, both in Planchets & on filter paper. This unit serves both as a contamination monitor cum counter. It uses a ZnS(Ag) scintillator screen as the Alpha scintillator which is covered with a thin aluminized mylar window to prevent light leakages. Efficiency better than 25% at centre is guaranteed.

It is primarily used for routine checking of Alpha contamination on floor, work benches, walls and beams etc. in active labs. Also facilitates counting of wipe samples, air activity samples etc. It is a micro-controller based unit designed to indicate contamination in CPS or CPM or counts for a 'preset time' to indicate on LCD display. It has large sensitive area of about 125 Sq.Cm. It operates on 6V, dry cells. Well designed 'handle' for holding the unit has been provided.

SPECIFICATIONS

Radiation Detected: Alpha

Detector: ZnS(Ag) scintillator screen covered with aluminized mylar (serves as entrance window) coupled to suitable PMT with a suitable light guide.

User can easily replace Mylar when contaminated or damaged. No screws are used, only latches to hold the scintillator frame.

Detector Viewing Area: 125sq cm scintillator (80x160mm) with a sensitive area of more than 85%. Protection cover over detector window is provided for protection when not in use.

Drawer assembly : This facilitates one to load samples both in planchets or on filter paper for counting application.

PMT: Suitable photomultiplier tube

Typical Operating Voltage Range: 750 - 900V

Modes of operation: CPS, CPM and CNT for a preset time.

Efficiency: Better than 25% with Am241 source

Preset Time: (1-9999) Sec.

Counts Capacity: 999999

Over range: Indication is provided

Built-in Storage: 999 readings can be stored and recalled onto display.

Resolution: 1CPS/1CPM/1 CNT.

USB : PC connectivity through USB port for dumping data.

RTC : Real time clock for time stamp of each data.

Buzzer: Aural chirps for each radiation event will be produced.

Display: 16x2, dot matrix LCD display

HV: HV adjustable internally 750V-900V (Factory Set) depending on the PMT used.

FEATURES :

- Measures contamination in CPS, CPM and serves as a counter in 'counts per Preset time' mode.
- 16x2 LCD dot matrix display.
- Large Scintillator to cover surface area of approx. 125 Sq.Cm.
- Facilitates counting of wipe samples, air activity samples, apart from measuring of contaminated areas.
- Efficiency : Better than 25% with Am241 in the centre.
- Uses ZnS(Ag) detector covered with replaceable aluminized mylar as Alpha Detector.



Unit with Drawer Assembly



Drawer Assembly

Options Available :

Power: Operable on standard dry cells (1.5V X 4) 6 volts DC, Size AA, LR6, Alkaline cells BPL Excell or its equivalent or Rechargeable NiMH (1.2Vx5) 6VDC, size AA, LR6 or Battery eliminator.

Dimensions : Less than 115x230x115mm

Weight: < 1.5kg

Type Test : EMI/EMC test as per IEC61000-4-3

Carrying Case (Optional):

A rugged proof carrying case suitable during transportation can be offered optionally on request.

Option1: Is a standard product with specifications as detailed above

Options2 Sample Drawer assembly: Wide Area Alpha Scintillation monitor is offered with sample drawer assembly, which facilitate one to count wipe sample deposits on 2" dia filter paper, & also can be used counting for planchet deposited samples.



**Back view of the
ALPHA SCINTILLATION
MONITOR**