



SALIENT FEATURES

- SPECIAL THIN HONEY-COMB PATTERN S.S. MESH FOR BETTER EFFICIENCY AND LARGE OPEN AREA
- MICRO CONTROLLER BASED
- HIGHLY FACILITATED
- HAND HELD, LIGHT WEIGHT & PORTABLE
- DIGITAL LCD READOUT
- AUTOMATIC CONVERSION TO bq/cm² ,CPS,CPM
- EASY REPLACEMENT OF ALUMINISED MYLAR
- VERY LOW BACKGROUND
- WELL PROVEN LONG LIFE PM TUBE
- DATA STORAGE & DUMP VIA RS232 PORT
- BATTERIES

INTRODUCTION

Aiscin Monitor type ALS 939 is hand held, micro controller based, rechargeable battery operated, and portable instrument. It is a very useful & convenient instrument for measuring contamination of alpha particles on the surface of walls, floors, tables etc. with 8 x 2 LCD display, low-level alpha contamination can be measured in terms of counts/CPM/CPS/bq/sqcm.

Scintillation detector uses ZnS evenly coated layer on Mylar sheet, which is covered by aluminised Mylar to prevent external light & thereby get better efficiency. Also, mylar replacement is now made very easy in these instruments & mylar strength is also improved. S.S. mesh used for mylar protection is specially made, honey-comb shaped to achieve better efficiency & open-to-close ratio.

PM tube used, is a well proven long life PM tube for more than 20 years. It is rugged & has low dark current. Also, it is well specified for shock & vibrations, which is extremely important when used in portable instruments.

TECHNICAL SPECIFICATIONS

NUCLEAR

Radiation Detected	α (Alpha)
Detector	Built-in ZnS Scintillator covered with aluminised mylar with 2" PM Tube (10 dynodes, Gain:0.6x10 ⁶ , Dark Curr:0.3nA typical) (Shock:30g/11ms/3 shocks per axis, Sinusoidal Vibration: 10-32Hz: 10mm, 32-2000Hz:20g, 2 octaves/min)
Scintillation Window	Circular window of 11 cm effective diameter, With opening area >80%
Efficiency	Better than 25%
Background	< 15 Counts/hr.
Units	Counts CPM, CPS, bq/sqcm conversion by pressing UP button after the end of preset time
Range	0 – 999999 Counts and 0.01 to 99.9 bq/sqcm
Efficiency	To be entered manually (For bq/Sqcm calculation)

INDICATIONS/INTERFACE

Audio Chirp	A chirp sound per detected pulse chirp mute if required)
Auto Mode	Starts with START switch & auto stops after preset time
Manual Mode	START / STOP by button
Reset Button	To reset Scaler & Timer
Elapsed time	AUTO mode 1 to 9999s or 1 to 9999M (minutes)
Display Lamp Modes	ON or OFF or Auto (10 sec)
Display	8 x 2 Alpha Numeric Dot Matrix LCD with back light
Count ON	LED indication when counting is in progress
Low Batt.	'LOW BATT' on LCD
Over Range	OFL' (overflow) on LCD, when count exceeds 999999

Data Storage	Automatic storage of readings at the end of elapsed time Max. readings storage capacity: 1000. Provision to delete stored readings. Data dump to PC through RS232 port.
Facilities	Data Dump, Erase and Recall
MECHANICAL/ELECTRICAL	
Power On Switch	Rocker Switch
Other Push Buttons	START/STOP, RESET, SHIFT, UP & ENTER
Mylar Protection Mesh	Specially designed thin honey-comb pattern S.S. mesh for better efficiency & better open-to-close ratio.
Mylar Mounting	on S.S. frame for easy replacement
Mylar Replacement	Screw less (No screws to be removed for replacement of mylar)
HV	500V - 1000V DC (factory set to suit detector)
Power	Batteries

CAT.No. ALS 939/0218

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