

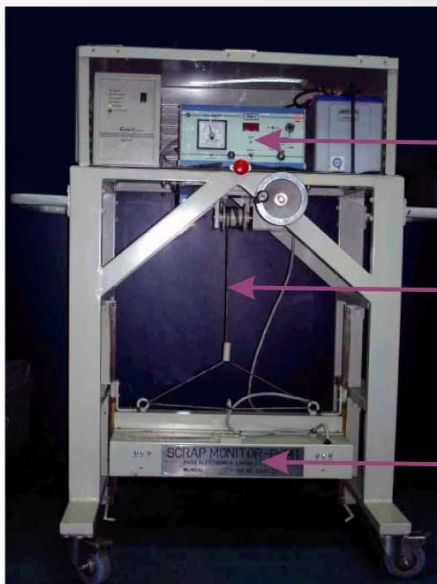


RADIATION MONITORING & SURVEY SYSTEMS

Scrap Monitor

Scrap Monitor Model PSM-1 developed by Para Electronics (I) Pvt. Ltd. is to cater the requirement of monitoring scrap for possible gamma contamination. This Monitor employs 6 nos. of energy compensated GM tubes. These thin walled GM tubes will be mounted parallel to the length of the Scrap Monitor. The housing of these GM tubes can be moved vertically for a span of nearly 700 mm. It's lower most position will be at 40 mm from ground level and the highest position will be at 300 mm. The output of these GM Tubes will be OR tied and will be fed to Scrap Monitor's display unit. This display unit consists of Count Rate Meter, Audio / Visual settable alarms, facility to subtract background level. Count Rate Metering circuit has 3 Ranges namely, 0 to 500 CPS, 0 to 5000 CPS and 0 to 50000 CPS. The alarm level can be set between 0 to 100% of any range. Analog Meter with 270° square dial will indicate the CPS level. The integration time can be set to either 1 second or 5 seconds. Alarm levels are indicated on the same meter by setting the band switch to appropriate position.

Contamination Monitor has a facility to subtract the background. It is possible to subtract the background upto 500 CPS. User can select background subtraction by setting background subtraction switch to ON position.



SCRAP MONITOR
READOUT UNIT

MECHANICAL MOVEMENT
GEAR WHEEL ASSEMBLY

DETECTOR TRAY
ASSEMBLY



RADIATION MONITORING & SURVEY SYSTEMS

Specifications -Scrap Monitor

Detector Head

Mechanical Dimensions :	Overall Dimensions: 700 W x 500 H x 500 D mm (approx) Detector Housing with Stainless Steel Bottom : 700 W x 500 H x 100 D mm (approx)
Detector(s) used :	Thin walled Halogen quenched GM Tubes with overall length 280 mm and diameter 28 mm
No of GM Tubes :	6
HV Supply modules :	One HV supply module per 3 GM tubes
No of HV modules :	2
HV Output :	Internally settable up to +900 V
Detector Head Output :	OR tied TTL output from all the GM tubes will be fed to the contamination monitor All outputs will be effectively averaged over the integration time

Display Unit (contamination Monitor)

Count Rate Ranges :	0 to 500 CPS, 0 to 5000 CPS, 0 to 50000 CPS Three switch selectable ranges
Input :	TTL Input pulses from Detector Head
Alarm Level :	Settable Alarm Level between 0 to 100% of selected range
Alarm Level Adjust :	Single turn potentiometer screw driver settable mounted on rear panel user can set Alarm Level between 0 to 100% of selected range
Alarm Indication :	Visual - RED flashing LED indicator Audio - Audio Alarm External - Relay change over contact
Alarm Acknowledge :	Front panel mounted push switch to reset the audio alarm. Visual alarm will switch off when the contamination level goes below the set value
Integration Time :	1 or 10 seconds switch selectable
CRM Indication :	100 mm x 100 mm square, 0 to 270° Analog Meter
Background Subtraction :	0 to 500 CPS settable by 10 turn helipot with Graduated dial



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Specifications -Scrap Monitor

Mechanical

Detector Head

Enclosure	:	Aluminum powder coated box
Typical	:	807 L x 850 H x 400 D mm
Trolley	:	Steel Frame with adjustable vertical height for detector head.
Vertical Height	:	
Adjustment	:	From 40 mm to 300 mm by a bevel gear arrangement

Contamination Monitor

Enclosure	:	Aluminum Powder Coated Box
Dimensions	:	310 W x 150H x 280 D mm
Power	:	240 V ($\pm 10\%$), 50 Hz AC Mains

(* Dimension are changed subject to the requirement)



Tray - lowered down position



Tray - up position