

TECHNICAL SPECIFICATION OF ALPHA BETA GAMMA CONTAMINATION MONITOR

S.N.	PARTICULARS	PRESENT SPECIFICATIONS WITH DATE OF FORMULATION (16/06/23)
1.	Types of Radiation to be Detected	Alpha, Beta, Gamma
2.	Detector	Plastic Scintillator coated with ZnS (Ag) – dual phosphor scintillator Phoswich type
3.	Gamma sensitivity	35 cps per μ Sv/hrs or better
4.	Display	Back-lit TFT /LCD/LED Type
5.	Detector window activearea	Min 100 cm ²
6.	Window Thickness	0.80 to 2.5 mg/cm ² aluminized plastic film Sensitive area
7.	Efficiency	20% or more for Am-241 for alpha-particle & 30 % or more for Sr/Y-90 Beta particle
8.	Measurement Unit	CPS/CPM (For Alpha and Beta), Bq/cm ² (for Alpha), μ Sv/hrs mSv/hrs (for individual dose calculation), μ R/hrs mR/hrs (for Zone marking)
9.	Measuring Range	0.01 to 99999 cps
10.	Weight	Up to 1.00Kg
11.	Alarm	Acoustic with alarm thresholds for alpha and Beta & Gamma
12.	Battery	Rechargeable batteries (Min 02 Set) along with 230V AC Battery Charger and minimum 06 hours continuous working in single charge.
13.	Rugged and compact	Design, thick rubber protection covers. Must have IP Rating IP65 or above.
14.	Internal Data Memory	1000 measured values with date & time
15.	Operation modes	(a) Scalar/ Timer with pre-set count and pre-set time for sample measurements (b) Continuous rate meter mode for frisker operation (c) Alpha, Beta, and Alpha + Beta modes (d) Gross or net counting
16.	Audible indication	Distinguishable Audio Alarm for Alpha, and Beta+Gamma.
17.	Working Temp.	-10°C to + 50°C
18.	Storage Temp	-20°C to + 60°C
19.	Warranty	One Year from the date of delivery
20.	Carry Case	Customized ABS (Acrylonitrile Butadiene Styrene) case/box (rugged and durable) with PU Foam layer inside and carrying handle.
21.	Spare & service support	Assured supply of spare & maintenance for 10 years
22.	Shelf Life	07 Years

M

[Signature]

[Signature]

[Signature]

[Signature]

[Signature]

Technical Specification of Beta Gama Contamination Monitor

S/ No	Specification	
1.	Radiation Detected	Beta (β) & Gamma (γ)
2.	Detector	GM Probe (pancake GM tube) with suitable connector and β/γ discriminator (areal density - 1.5 - 2.0 mg/ cm ² , Effective dia = 1.75")
3.	Count Rate Range	50K CPM or higher
4.	Time Constant	Auto or Manual
5.	Energy Response	200 KeV to 2 MeV @ 662 KeV
6.	Accuracy	$\pm 15\%$
7.	Display	Back-lit LCD /TFT/LED Display
8.	Chirp	Buzzer sound
9.	Alarm	Audio & visual settable alarm
10.	Power	Rechargeable batteries (Min 02 Set) along with 230V AC Battery Charger and minimum 06 hours continuous working in single charge.
11.	Continuous Operating time	Min. 10 hours
12.	Size (in cm)	Max. (20 cm x 10 cm x 5 cm)
13.	Carrying case:	Customised ABS with PU Foam layer inside and carrying handle.
14.	Temp. Range	-20°C to + 50°C
15.	Warranty	One year from the date of delivery
16.	Spare & Service support	Assured supply of spare & maintenance for 10 years
17.	Ingress protection	IP 65 Minimum.
18.	Shelf Life	07 Years
19.	Certificates of the OEM required and Sample to be tested at BARC.	

(Handwritten signature)

(Handwritten signature)

(Handwritten signature)

(Handwritten mark)

(Handwritten mark)