

Contamination Monitors

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Contamination Monitors

The Mini Monitors are well established in teaching, research, hospital and industrial laboratories as reliable, convenient and inexpensive contamination meters.

The 900 series has the following features;

- Large logarithmic scale
- Audible estimate of radiation intensity
- Alarm which can be set to trip at any level on the scale
- Battery operated (6AA cells or rechargeable) or mains
- Comprehensive manual containing tables and response curves to different radiations
- Conforms to requirements of International Electrotechnical Commission publication 325
- All models are delivered with alkaline batteries, probe and instruction manual

Instrument Selector

Isotope	Major Emission keV		Contamination Monitor
	Beta	Gamma	
Caesium ¹³⁴	662	796	E, EP15
Caesium ¹³⁷	512	662	E, EP15
Carbon ¹⁴	150	–	EP15
Chromium ⁵¹	–	320	Please contact our Technical Office
Iodine ¹²⁵	–	35	44A
Phosphorous ³²	1700	–	E, EP15
Phosphorous ³³	245	–	EP15
Sulphur ³⁵	167	–	EP15

Type E

A general purpose monitor using a thin end window G-M tube. It is suitable for the monitoring of soft beta emitters. Under certain conditions, surface beta and gamma dose rates may be estimated. The probe is supplied with a protective grille and plastic end cap.

Type EP15

Similar to the Type E but using a large end window halogen quenched G-M tube. It is approximately twice as sensitive as the Type E, but has a lower scale limit and is recommended for measuring the lower contamination limits of soft beta emitters. The window is protected by a stainless steel grille and removable plastic cap.

Specifications

Model	Type E	Type EP15
Window area, cm ²	6.4	15.5
Window thickness	1.5 to 2.0mg cm ⁻² mica	1.5 to 2.0mg cm ⁻² mica
Beta sensitivity	0.7 counts s ⁻¹ for 1Bq cm ⁻² ¹⁴ C 1.8 counts s ⁻¹ for 1Bq cm ⁻² , ⁹⁰ SR/ ⁹⁰ Y	1.3 counts s ⁻¹ for 1Bq cm ⁻² ¹⁴ C 4.0 counts s ⁻¹ for 1Bq cm ⁻² , ⁹⁰ SR/ ⁹⁰ Y
Alpha sensitivity	0.6 counts s ⁻¹ for 1Bq cm ⁻² ²³⁸ Pu	0.9 counts s ⁻¹ for 1Bq cm ⁻² ²³⁸ Pu
Gamma sensitivity	2.2 counts s ⁻¹ for 1μSv h ⁻¹ (0.1mR/h) ¹³⁷ Cs	5.0 counts s ⁻¹ for 1μSv h ⁻¹ (0.1mR/h) ¹³⁷ Cs
Meter range	0.5 to 2000 counts s ⁻¹	0.5 to 600 counts s ⁻¹

Type 44A

The sodium iodide crystal (32mm diameter by 2.5mm thick) is mounted on the front surface of the probe to facilitate monitoring of large contaminated areas. It is suitable for a range of energies from approximately 15keV to 250keV. It is also β sensitive for energies above 500keV.

Specification

Dimensions (diameter x length), mm	50x180
Aluminium window weight	14mg cm ⁻²
Sensitivity	3.8, 1.6 and 1.4 counts s ⁻¹ for 1Bq cm ⁻² (2.7x10 ⁻⁵ μCi cm ⁻²) of ¹²⁵ I, ^{99m} Tc, ⁵⁷ Co respectively. Background 4-8 counts s ⁻¹ depending on locale

Cat. No.	Description	Price
523-011	Type E	POA
523-012	Type EP15	POA
523-013	Type 44A	POA



523-012