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Your Alternative
To The Obvious

Model 334A – Alpha Air Monitor

Features

- Easy Setup & Use
- Integrated LCD & Touch Screen Display
- English or SI Units of Measurement
- Acute & Chronic Dose Modes
- Significantly Reduced False Alarms
  Using Peak Shape Fitting Capability
- 8-Hour Battery Life
- Radon Mode Option

Introduction

The Model 334A is a compact, lightweight, and portable alpha air monitor designed to function both as a workplace monitor and a CAM for measurements in emergency response situations. Spectral analysis is conducted via a 1024-channel analyzer that feeds data to the embedded processor. Factory configuration provides either special nuclear materials (SNM) or radon progeny measurements of potential alpha energy concentration (PAEC).

Measurements may be taken in both fast-responding (Acute) or high-sensitivity (Chronic) assessments, and report in English or SI units. The Model 334A stores acquired data in comma separated- variable (.csv) format that is recognized by most spreadsheet and database software. Data may be saved in the instrument's internal memory, or alternately may be written to an SD card for later retrieval and review.

Independent determination of nuclide peaks means they are impervious to radon equilibrium changes, thereby contributing to low probabilities of error and false alarms.
Precise fitting of the ^{218}Po tail results in excellent sensitivity.

This instrument features an integrated LCD and touch screen that displays information on instrument status and readings during operation. The estimated dose of the isotope(s) of interest and instrument status is displayed at all times. A window below may be switched from showing historical readings and battery status, or display the current spectrum.

Factory-configurable "Radon Mode" allows the instrument to monitor potential-alpha-energy-concentration (PAED) of radon progeny. While in this mode the Model 334A can monitor not only radon/thoron exposure, but also an additional isotope-of-interest (usually Mixed-U)

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Specifications

SAMPLING HEAD and FLOW

- Filter holder: 37 mm
- Detector: solid-state silicon (450 mm² active area)
- Pump: diaphragm-type, 6.0 LPM with no load

DATA ANALYSIS

- MCA: 1024-channel analyzer binned to 256 channel spectrum
- Alpha Peak-shape fitting algorithm
- ^{214}Po, ^{218}Po (optional 212Po) and two additional isotopes-of-interest
- Acute (fast response) and Chronic (high sensitivity) dose determinations
- Windows CE-based, 533 Mhz Intel X-Scale processor

PHYSICAL

- Temperature: -17 to 50 °C (0 to 122 °F)
- Humidity 5 to 100% (non-condensing); splash-proof electronics
- Size 22.8 x 17.8 x 10.1 cm (9 x 7 x 4 in. (H x W x D)
- Weight 2.4 kg (5.2 lb)