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Your Alternative
To The Obvious

Model 334AB – Alpha/Beta Particulate Monitor

Features

- Easy Setup and Use with Integrated LCD and Touch Screen Display
- English or SI Units of Measurement
- Acute and Chronic Dose Measurements
- Concentration Measurement
- Flow Logging Measurements
- Significantly Reduced False Alarms Using Peak Shape Fitting Capability
- Approximately 8-Hour Battery Life
- Portable Workplace Monitor or Portable CAM for Emergency Response Assessments



Introduction

The Model 334AB is designed to function both as a portable workplace monitor or as a continuous air monitor (CAM) for emergency response situations. The compact and low weight instrument has an integrated LCD and touchscreen that provides information on instrument status and readings during operation. The estimated dose of the isotope(s) of interest and the instrument status are displayed at all times.

A display window below may be switched from showing historical readings and battery status, or it can display the current spectrum.

An ion-implanted silicon detector and 1024-channel multichannel analyzer feeds data to the embedded processor board. Operations include beta detection and alpha spectral analysis for radon compensation. Acquired data may be saved in the instrument's internal memory, or alternately may be written to an SD card for later retrieval and review.

It is stored in comma-separated-variable (*.csv) format that is recognized by most spreadsheet and database software.

Specifications

SAMPLING HEAD and FLOW

- Detector: solid-state silicon 300- μ m-depleted (450 mm² active area)
- Pump: diaphragm-type, 6.0 LPM with no load
- Filter: 37 mm (1.5 in.) diameter with active (plated diameter of 25 mm (1 in.))

DATA ANALYSIS

BETA: dual threshold (beta with a alpha cutoff) gross counting board; fixed background subtraction with subtraction factor; radon background subtraction with subtraction factor; acute (fast response) and chronic (high sensitivity) dose determinations; Windows CE-based, 533 MHz Intel X-Scale processor, typical 15% for ³⁶Cl

ALPHA: 1024-channel MCA binned to 256-channel spectrum; alpha peak-shape fitting algorithm; 212Po, 214Po, 218Po, (optional one or two isotopes-of-interest); acute (fast response) and chronic (high sensitivity) dose determination

PHYSICAL

- Temperature Range: -17 to 50 °C (0 to 122 °F)
- Humidity: 5% to 100% (non-condensing)
- Size: 30.5 x 26.7 x 12.7 cm (12 x 10.5 x 5 in.) (H x W x D)
(11 x 13 x 5 in.) (H x W x D)
- Weight: 3.8 kg (8.3 lb)