# HIGHLY SENSITIVE TRITIUM IN AIR MONITOR

## **Model - 347**

## **FEATURES:**

- SENSITIVE DOWN TO: 0.5 µCi/m³ (0.02 MBq/m³)
- FOUR 2L ION CHAMBERS IN CRUCIFORM PATTERN FOR MAXIMUM SENSITIVITY, STABILITY, AND GAMMA COMPENSATION
- TOTAL MEASUREMENT VOLUME: 4000 CM<sup>3</sup>
- NO RESPONSE TO RADON
- ZERO DRIFT BETTER THAN ±1µCi/m³
- SINGLE, ADJUSTABLE ALARM SETPOINT WITH AUDIBLE AND VISUAL ALARMS
- AC
- DIGITAL LOCAL DISPLAY
- OPTIONAL: RS232 OUTPUT; REMOTE READOUT



### **APPLICATION:**

A general purpose highly sensitive Tritium in air monitor that utilizes four 2L ion chambers for applications that require low-level sensitivity with the best gamma compensation and stability.

## **DESCRIPTION:**

The Model 347 includes four 2L ionization chambers arranged in a cruciform pattern to provide superior gamma compensation from all directions. The additional ionization chamber volume also provides enhanced stability and sensitivity. The pump, filter, and flowmeter are mounted on a separate panel and includes a HEPA filter to ensure sample is free of particulates.

## **SENSITIVITY:**

Sensitivity: 0.5 µCi/m³ (0.02 MBq/m³).

## **RADON INTERFERENCE. NOISE RESPONSE:**

A radon suppression circuit produces accurate and drift-free readings.

#### **FAST RESPONSE:**

Exceptionally rapid response is due to its unique ability to ignore radon. The instrument has an electronic time constant.

## **FAST WARM UP:**

After applying power, "warm up" takes less than 5 minutes.







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### **SPECIFICATIONS:**

RANGE: 0.1 to 1,999.9 µCi/m³ or 0.01 to 199.99 MBq/m³

DISPLAY: Digital, 4 ½" digit LED

ACCURACY: ±10% of reading, ±1 µCi/m³, whichever is greater

STABILITY & LONG-TERM DRIFT: ±1 µCi/m³ of ambient temperature

GAMMA COMPENSATION: Second ion chamber pair of equal volumes, mounted in

cruciform pattern, serves to cancel effects of external gamma

fields up to 25 mR/hr

RESPONSE RATE, ELECTRONIC: two linear time constants, 30 seconds for <80 μCi/m<sup>3</sup>;

3 seconds for >80 µCi/m3

WARM-UP TIME: Less than 5 minutes for high voltage power supplies to stabilize

ALARM SYSTEM: Single alarm, with set point adjustable from 1 to 1000 µCi/m<sup>3</sup>

ION CHAMBER VOLUME: Measuring: 2900m³; Total Wetted: 4000 cm³

ENVIRONMENTAL: Storage: -40° C to 60° C (-40° F to 140° F)

Operating:  $0^{\circ}$  C to  $50^{\circ}$  C ( $32^{\circ}$  F to  $122^{\circ}$  F)

Humidity: 0-95% RH non-condensing

PHYSICAL CABINET: Benchtop, aluminum extrusions front and rear panel

POWER: 115 VAC or 240 VAC 50/60 Hz

DIMENSIONS: 8.8" (223mm) H x 19.0" (483mm) W x 16.0" (406mm) D

WEIGHT: 45 lbs (20.4kg)

FLOWMETER: 0-10 lpm adjustable rotameter

DUST FILTER AND PUMP: Separately mounted

POWER: 115 VAC or 240 VAC 50/60 Hz

DIMENSIONS: 7.0" (178mm) H x 17.0" (432mm) W x 16.0" (406mm) D

WEIGHT: 20 lbs (9.1.4kg)

#### **OPTIONS:**

- Remote alarm units
- Remote meter displays
- Tritium gas calibrator
- Calibration resister
- 4-20 mA output
- Logarithmic output
- RS232 output







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