

VAPOR EXTRACTION TOOL & TRITIUM MONITOR

PORTABLE

Model - VAP-X-(H3)

FEATURES:

- USER SETTABLE UNITS - PicoCi/ml or Bq/m³ etc.
- WIDE RANGE - DIGITAL ACCURACY
- PROGRAMMABLE DIGITAL READOUT
- SENSITIVE FOR OCCUPATIONAL EXPOSURE
- DYNAMIC BACKGROUND COMPENSATION
- BATTERY OPERATION OR AC OPERATION
- BUILT-IN HIGH LEVEL ALARM
- BUILT-IN LOW FLOW ALARM
- BUILT-IN RS-232 COMPUTER INTERFACE



APPLICATION:

- Pin-point leak source / location
- Map underground plume
- Locate edge of plume
- Locate problem areas

Advantages:

- Allows user to chase down source
- Optional Sr-90 detection or detection of other nuclides

Situation:

Vapor extraction from soil at a series of points facilitates tracking and mapping a radiation leak or a spreading plume. Existing holes or wells may be available but additional data is required from points at different depths. Model VAP-X-(H3) is designed specially to help you accomplish this task. Details in the **System Description Chart**.

DESCRIPTION:

Technical Associates **VAP-X-(H3)** Tritium Monitor is a sensitive, rugged, portable instrument for detection and measurement of Tritium vapor in the soil. Its subtractive balanced chamber electrometer circuit decreases background effects to negligible levels and its deionized and filtered intake reduces to negligible levels spurious effects from dust and existing ionization in soil air. It is battery or AC operated. Inlet and outlet hoses are provided. The PTG-9 will measure airborne Tritium in any form: water vapor, hydrogen gas or as volatile chemicals in concentrations as low as 1×10^{-5} uCi/cc of air. (370 KBq/m³) All instruments are calibrated at the factory. Calibration check may be performed in the field with a microCurie level Beta or Gamma source. Background chamber may be disconnected to check linearity of response on a gamma calibration range. User friendly calibration controls are provided.



TECHNCIAL ASSOCIATES

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A Division of



US NUCLEAR CORP

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SYSTEM DESCRIPTION:

TASK	TOOL	MODEL	INCLUDED
MAKE A NEW HOLE	Cone Penetrometer	CP-VAP	Optional
	Coring Tool	CT-VAP	Optional
	Auger-Drill	AD-VAP	Optional
VAPOR COLLECTION	Push Tube: Hollow push tube with closed end and side hole air intakes	PUSH-1	YES
	Vapor Build-Up Chamber	BAP-BUC	Optional
Pump	Air Pump	Built-In	YES
Filter	Coarse filter in push tube, fine filter at detector inlet	Built-In	YES
	Particulate Filter	Built-In	YES
Tritium Measurement	Tritium concentration meter	PTG-9	YES
REJECTION FEATURES			
Gamma Background	Dual chamber design	Built-In	YES
Radon Rejection		MOD-400PM	Recommended
DETECTION OF OTHER NUCLIDES			
C-14, Sr-90, Cs-137 etc.		Mini-Air-VAP	Submit List of Nuclides of Concern
DATA TRANSMISSION			
A -- Serial	Serial RS-232	RS-232	Choose A, B and/or C when ordering
B – Ethernet, wired	Ethernet, wired	EW	Choose A, B and/or C when ordering
C – Ethernet, wireless	Ethernet, wireless	EW-LS	Choose A, B and/or C when ordering
DATA STORAGE			
Hardware & Software	Palm data logger	P-LOG	Optional
Software & Cable	Store data to laptop	WIN-W	Optional
Internal Data Storage	Non-Volatile	Built-In	Optional
DATA NETWORK	Universal, easy ORO Network For all types of sensors	ORONET, Overdrive	YES

User Manual Included



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SPECIFICATIONS:

- Ranges:** Compact, easy to read digital LCD readout.
1 x 10⁻⁶ to 1.0 uc/ml (37 KBq/ml to 3.7 x 10¹⁰ Bq/ml.)
- Background:** Essentially eliminated by subtractive balanced chambers.
- Smoke, Dust and Ion Elimination:** Filter and deionizer reduce effects to negligible level.
- Circuit:** Electrometer circuit amplifies net difference between 0.7 liter Tritium internal chamber and a sealed background chamber of similar configuration.
- Alarms:** Low Air Flow, Alarm High Level Alarm: Red Lamp and Audio Alarm.
- Controls:** Power, Pump On/Off, Battery Check, Set (calibration aid), Zero Adjust, Meter Programming (Two buttons).
- Calibration:** Can calibrate internally with Tritium gas, or on a calibration course, or (at a single point) with optional beta or gamma source. .
- Computer Port:** RS-232 serial port is built in (fully addressable).
- Portability:** PTG-9 Lightweight with carrying handle.
- Case:** Deep drawn aluminum case, with handle and gasket lid, easy clean anodized finish.

WEIGHT AND DIMENSIONS:

- Instrument Case (Including handle):** 9"W x 13"L x 9" Tall.
- Front Panel:** 13" Long x 9" Wide.
- Battery:** 9V rechargeable sealed.
- Battery Life:** 20 hours between charges. Battery charger is built-in.
- Weight:** 12 lbs.
- Shipping Weight:** 15 lbs (Including batteries and charger)



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