

TRITIUM MONITOR Tri-Tracker-1

FEATURES:

- AFFORDABLE
- USER SETTABLE UNITS - uCi/l or Bq/m³ etc.
- WIDE RANGE - DIGITAL ACCURACY
- PROGRAMMABLE DIGITAL READOUT
- SENSITIVE FOR OCCUPATIONAL EXPOSURE
- BATTERY OPERATION
- BUILT-IN HIGH LEVEL ALARM
- BUILT-IN RS-232 COMPUTER INTERFACE



DESCRIPTION:

Technical Associates **Tri-Tracker-1** is a portable flow-thru Ion Chamber that can be used as a Tritium Air monitor. It is a sensitive, rugged, and portable instrument for detection and measurement of airborne radioactive gases. Its' stable ion chamber and electrometer circuit decreases background effects to negligible levels and its optional deionized and filtered intake reduces to negligible levels spurious effects from smoke, dust and existing ionization in the air. It is battery operated with nominal 100 hour operation. Optional inlet and outlet hoses allow monitoring interiors of fume hoods, exhaust stacks, etc. The **Tri-Tracker-1** will measure airborne Tritium as free hydrogen or as volatile chemicals in concentrations as low as 1×10^{-2} uCi/l 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. The chamber may be checked for linearity of response on a gamma calibration range. User friendly calibration controls are provided.

Tri-tracker-1P - perforated chamber for ambient air measurement.

Tri-tracker-1F - flow-thru chamber for tritium sniffing from glove box or duct, etc.

Tri-tracker-1PF -comes with 2 interchangeable chambers as described above.

TA **TECHNICAL ASSOCIATES**

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TRITIUM MONITOR Tri-Tracker-1

SPECIFICATIONS:

- Ranges:** Compact, easy to read digital LCD readout. 1×10^{-2} to 10 uCi/l (370 KBq/m^3 to $3.7 \times 10^8 \text{ Bq/m}^3$)
- Background:** 1000 division "zero dial" allows user to suppress the zero and avoid manual background subtraction.
- Detector:** Stainless steel, flow-thru, one liter, ion chamber
- Readout:** 6 digit LCD for Rate, 8 Digit for integrate. optional backlight
- Electrometer:** solid state, MOSFET input
- Smoke, Dust and Ion Elimination:** Optional filter and deionizer reduce effects to negligible level.
- Circuit:** Electrometer circuit amplifies ion chamber current from 1 liter tritium built-in chamber polished stainless steel chamber
- Alarms:** High Level Alarm: Red Lamp and Audio Alarm.
- Controls:** Power, Pump On/Off, Battery Check, Set (calibration aid), Zero Adjust/Background suppress, 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:** Tri-tracker-1 is light weight with comfortable carrying handle.
- Case:** Deep drawn aluminum case, with handle and gasketed lid, easily cleanable polished stainless steel chamber..
- Dimensions**

Instrument Case (Including handle): 5"W x 12"L x 7" Tall.

Front Panel: 5.5" Long x 3" Wide.

- Battery:** Quick change 6 pack or standard AA cells.
- Battery Life:** 100 hours between charges.
- Weight:** 3 lbs. Shipping weight 6 lbs (excluding optional pre-filter)

Options:

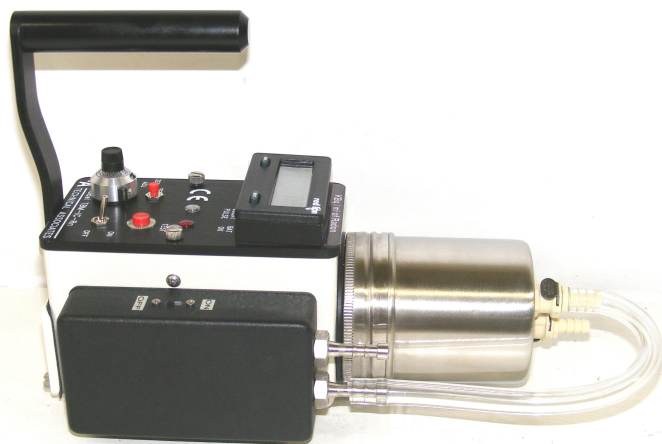
Tri-tracker –2 for C14 measurement - 1×10^{-3} to 1 uCi/l (37 KBq/m^3 to $3.7 \times 10^7 \text{ Bq/m}^3$)

Tri-tracker –3 for Radon measurement - 1×10^{-2} to 10 nanoCi/l (370 Bq/m^3 to $3.7 \times 10^5 \text{ Bq/m}^3$)

- Higher Range
- Different Readout Units
- Electrostatic Deionizer
- Backlight
- Particulate pre-filters, or other prefilters



TriTracker-1P
With perforated
chamber



TriTracker-1
With optional pump.