

**MODEL PTM-1812
PORTABLE TRITIUM MONITOR**



Hand Held Tritium Monitor Model PTM-1812 Specifications

The PTM-1812 serves as two (2) instruments in one. The user can select between a perforated ion chamber shell for passive sampling or a solid ion chamber shell for active sampling. Both ion chamber shells are supplied with the instrument and are easily exchanged in the field. In the passive configuration it serves as a continuous, real-time area monitor. In the active configuration it uses an internal pump to monitor containers, glove boxes, etc.

Dimensions: 4.2"W × 4.0"H × 12.0"L (10.7 × 10.2 × 30.5cm)

Weight: 7 ½ lbs. (3.4 kg)

The instrument shell is constructed of rugged steel, the ion chamber components are constructed of 304 stainless steel and a Torlon insulator.

Chamber volume: Total: 375cc, Active: 180cc

The sensing chamber uses a finned electrode, which helps maintain linearity up to the maximum concentration with only low voltage on the chamber. This eliminates problems associated with high voltages and allows calibration by evacuation and backfill.

Range: 0 to 20,000 $\mu\text{Ci}/\text{m}^3$ in one continuous linear range

Sensitivity: 1 $\mu\text{Ci}/\text{m}^3$

Accuracy: $\pm 5\%$ of reading (in air at 760 torr and 20°C)

Note: Concentration measurement is a function of temperature through the PVT gas law.

Electronics are temperature compensated for 0°C to 50°C and are unaffected by humidity levels up to 95% R.H.

Power: 12 VDC rechargeable batteries will operate continuously for 1 day with the pump on or 7 days with the pump off

Convenient control panel features:

Display: 4 ½ digit LCD (0.4" high digits) Direct readout in units of $\mu\text{Ci}/\text{m}^3$

Alarm: Audible and visual, adjustable over entire ranges and read on display. Silenced from control panel and automatically reset

Zero: Push-button to activate electrometer zero and fine zero adjustment

Test: Push-button to activate current injection, which tests all electronics and indicates proper operation on display

Battery A/B: Push-button to activate test of 2 independent internal batteries

Pump: Allows for active pumping or power conserving passive diffusion