

# TRITIUM MONITOR

## Model # PTG-7 Portable

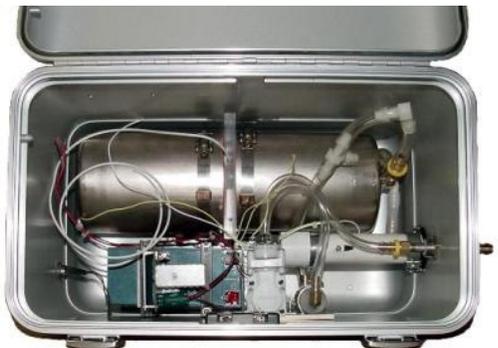
## Model #PTG-7L Line Operated

### FEATURES:

- USER SETTABLE UNITS - PicoCi/ml or Bq/m<sup>3</sup> etc.
- OR TOTAL STACK RELEASE IN milliCuries or MBq etc.
- WIDE RANGE - DIGITAL ACCURACY
- PROGRAMMABLE DIGITAL READOUT
- SENSITIVE FOR OCCUPATIONAL EXPOSURE
- DYNAMIC BACKGROUND COMPENSATION
- PORTABLE (PTG-7) OR MAINS OPERATION (PTG-7L)
- CAN ACTUATE OPTIONAL DIGITAL PRINTER
- BATTERY OPERATION(PTG-7) OR AC OPERATION (PTG-7L)
- BUILT-IN HIGH LEVEL ALARM
- BUILT-IN LOW FLOW ALARM
- BUILT-IN RS-232 COMPUTER INTERFACE

**DESCRIPTION:** Technical Associates PTG-7 Tritium Monitor is a sensitive, rugged, portable instrument for detection and measurement of airborne tritium. Its' subtractive balanced chamber electro - meter circuit decreases background effects to negligible levels and its deionized and filtered intake reduces to negligible levels spurious effects from smoke, dust and existing ionization in the air. The PTG-7L is the bench-top version of the PTG-7. It is line operated and it maybe left on permanently without fear of ``running out of battery". Inlet and outlet hoses allow monitoring interiors of fume hoods, exhaust stacks, etc. The PTG-7 will measure airborne tritium as free hydrogen or as volatile chemicals in concentrations as low as  $1 \times 10^{-6}$  uCi/cc of air. (37 KBq/m<sup>3</sup>)

All instruments are calibrated at the factory. Calibration check may be performed in the field with a microCurie level beta source. Chambers may be switched to additive operation to check linearity of response on a gamma calibration range. User friendly calibration controls are provided.



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**TRITIUM MONITOR**  
**Model # PTG-7 Portable**  
**Model #PTG-7L Line Operated**

**SPECIFICATIONS:**

- Ranges:** Large, easy to read digital LED readout. Two ranges cover six decades:  $1 \times 10^{-6}$  to 1.0 uc/ml (37 KBq/ml to  $3.7 \times 10^{10}$  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 a two 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:** Front Panel Off-On range switch calibrate switch. Alarm set button, alarm reset button.
- Calibration:** Can calibrate internally with tritium gas, or on a calibration course, or (at a single point) with optional beta source.
- Printer:** Plug is furnished for optional external serial printer.
- Computer Port:** RS-232 serial port is built in (fully addressable).
- Portability:** PTG-7 is provided with carrying handle and optionally with loops for shoulder sling.
- Case:** Deep drawn aluminum case, with handle and gasket-ed lid, easily clean-able anodized finish.
- Dimensions**
  - Instrument Case (Including handle):** 9"W x 16"L x 14-1/2" Tall.
  - Front Panel:** 15-1/4" Long x 8-1/4" Wide.
- Battery:** 12V 7 A/hr rechargeable sealed. Panasonic LCR12V1 BPN or equivalent.
- Battery Life:** 20 hours between changes. Battery charger is built-in.
- Weight:** 18 lbs. Shipping weight 26 lbs.

**SPECIFICATIONS:**

- PTG-7L Line Operated:**
- Case:** 19" rack mount type. 20-1/2" W x 22-1/2" L x 19" Tall.
- Weight:** 24 lbs. Shipping weight 40 lbs.

•**ACCESSORIES and OPTIONS:**

- RAL-3A:** Remote Alarm (audible & visual) Model #RAL-3A (including 25 ft. of cable). Can be used to 500 ft.
- PTG-7L-BAT:** Battery Back-up (PTG-7L).
- iServe-7:** Built-in internet / Ethernet server.
- HTR-7:** Heated Ion Chambers
- WIN-W:** Win-Wedge data logging software.
- MPM-40DT:** Serial Printer with date and time stamp.

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