

# STRAP-ON PIPE RADIATION MONITOR

Model # PEMO-7LE

## FEATURES:

- INSTALLS ANYTIME ANYWHERE
- NO PENETRATION, NO DOWNTIME
- SENSITIVITY INDEPENDANT OF FLOW RATE
- REAL TIME ALARM
- RATE and INTEGRATED EXPOSURE
- LOCAL READ-OUT
- WORKS WELL WITH STANDARD SCADA DATA SYSTEMS

**APPLICATION:** The **PEMO-7LE** Pipe Monitor assures accurate detection and quick alarm in case of waterborne radioactivity contamination flowing thru one or more pipes, by means of constant check with alarm and data record on optionally included computer. It provides integrated exposure information and can provide hard copy via external printer. It is a complete system but may be expanded per need with modules of the FM-7 series and/or Ethernet / Internet devices.

The **PEMO-7LE** is a sensitive and versatile version of the broadly used, TBM-emergency response radiation detector for Water and Air monitoring. It may be used to monitor water in pipes, ducts or effluent streams.

**GENERAL DESCRIPTION:** The **PEMO-7LE** uses standard NaI(Tl) Detector in T/A's unique Strap-On Style probe to continuously measure any water or airborne gamma emitting Radioactive contaminants, optional data logging with date and time stamp. The water or air stream is under constant surveillance via a scintillation detector. The unit is completely self-contained.



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## SPECIFICATIONS:

### Sensitivity:

With 1" x 1" crystal, no shielding: detects 80 $\mu$ R/hr above background in 3 sec at 99% confidence level. Sensitivity and response time depend on user's requirements and physical circumstances such as pipe diameter, wall thickness and ambient background radiation level and energy (KeV) of major nuclides of interest. For Example: A system with 3" x 3" NaI detector and 2" of lead shielding has a limit of sensitivity better than  $1 \times 10^{-7}$   $\mu$ Ci/cc of Co-60 in 18" diameter pipe with 0.02mR/h background in one hour measurement.

- Detectors:** 1" x 1" NaI (TI) crystal scintillation detector probe, Model PGS-3 sensitivity to all gamma above 100 KeV depending on wall thickness of the pipe.
- Electronic Model TBM-3D Programmable Scaler with RS-232 /485.**
- Alarm: Settable:** 2000 Hz beeper, red LED.
- Response Time:** Settable 0.1 to 100 seconds.
- Readout:** 6 digit LCD for each detector showing: concentration rate and total.
- Power:** 6 AA cells.
- Flow Rate:** Measurement is independent of flowrate.
- Case:** Sturdy, gasketed aluminum case.
- Dimensions:** Electronics: 3"W x 4"H x 5.3" , Detector: 1.5" dia x 8" long.
- Detector Assembly Weight:** 4 lbs for unshielded system.
- Shipping Weight:** 8 lbs. for complete 1 detector system
- Optional Accessories:**
  - On-site LE:** Onsite set-up with users SCADA System
  - PGS-3L \*** 2" x 2" Na(Tl) Crystal probe
  - Shielding:** 0.25" to 3" low- activity-lead around detector.

\* Call factory for more options