

# WIDE RANGE ION CHAMBER

Model # TBM-IC-HLS

## FEATURES:

- SEES X-Ray PULSE DOWN TO 0.002 $\mu$ R
- 1pSv to 10 mSv
- WIDE RANGE: 0.1 mR/hr to 1,000 R/hr- RATE
- DIGITAL READOUT: 8 digit-rate, 8 digits integrate
- DOSE RATE & TOTAL DOSE READ OUT
- LIGHTWEIGHT 28 oz. ( 870 grams)
- TBM PACKAGE
- FLAT RESPONSE - FREE AIR ION CHAMBER
- SEES BELOW 2 KEV GAMMA OR X-RAY
- SEES ALPHA, BETA, GAMMA, X-RAY
- CORRECT RANGE for ANSI N42.33 \*

**APPLICATION:** Whenever a fast, sensitive ion chamber instrument is needed, the **TBM-IC-HLS** is the latest in a series. The **TBM-IC-HLS** ion chambers are now lighter. Based on newest more stable, essentially drift-free electrometer technology.



**DESCRIPTION:** The **TBM-IC-HLS** consists of a 3.7" dia x 6" long air ion chamber coupled to a stable solid state MOSFET input electrometer with built in A to D converter to read out in two ranges directly in mR/hr or optional  $\mu$ Sv/h Dose Rate. Integrated Dose reads in total R or optional total Sv. Ion Chamber with 180 mg/cm<sup>2</sup> graphite lined methacrylate walls gives accurate "air equivalence". Thin (0.5 mg/cm<sup>2</sup>) Mylar window allows high sensitivity readings for alpha and for low energy beta such as C<sup>14</sup> in addition X-rays down to 2 KeV as well as higher energy Betas and Gammas.

## SPECIFICATIONS:

- Detector:** Free Air ion chamber 3.7" dia x 6" long. Internal volume almost one liter
- Wall & Cap:** Methacrylate, graphite lined 180 mg/cm<sup>2</sup> walls and 540 mg/cm<sup>2</sup> cap.
- Window:** 3.0" dia. x 0.5 mg/cm<sup>2</sup> Mylar.
- Readout:** LCD 8 digits.
- Indicator Lamp:** Green LED 10 pulses/sec per mR/h. Red Over-range Indicator
- Range:**

Rate 8 digit 0.1 mR/hr to 1.000 R/h in a two ranges. – Dose Rate  
Integrate 8 digits 0.01 mR to 1,000 R. – Total Dose

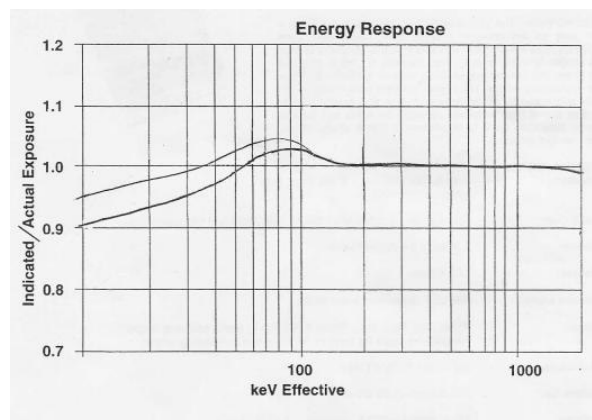
- Electrometer:** Solid State MOSFET input.
- Electronics:** A-D converter LCD drivers.
- Batteries:**  
1 set of CR-1220 Lithium lasts for the shelf life 7 years.  
6 ea. (AA) - 1000hr.

- Dimensions:** 6" x 4" x 12" including handle.
- Weight:** 28 oz. complete with batteries. 870 (grams)
- Options:**

### Readout in SI units: Sv and Sv/h.

- Thicker chamber wall to 1g/cm<sup>2</sup>
- Thin Cap same thickness as chamber side wall (180 mg/cm<sup>2</sup>).
- Closed chamber (no mylar window).
- Alarm light on Mr/Hr- Rate Mode
- RS-232 Serial Output

\* ANSI N42.33 Portable Radiation Detection Instrumentation for Homeland Security – Type 2 – Hazard Assessment



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