

WIDE RANGE ION CHAMBER

Model ~ TBM-IC-HLS

FEATURES:

- SEES X-Ray PULSE DOWN TO 0.002 μ R
- SEVEN DECADES
- 1pSv to 10 mSv
- WIDE RANGE: 0.1 mR/hr to 1,000 R/hr (1 μ Sv/h to 10 Sv/h) 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 *
 - OPTIONAL: RS-232 SERIAL PORT
- IP63; CE MARK



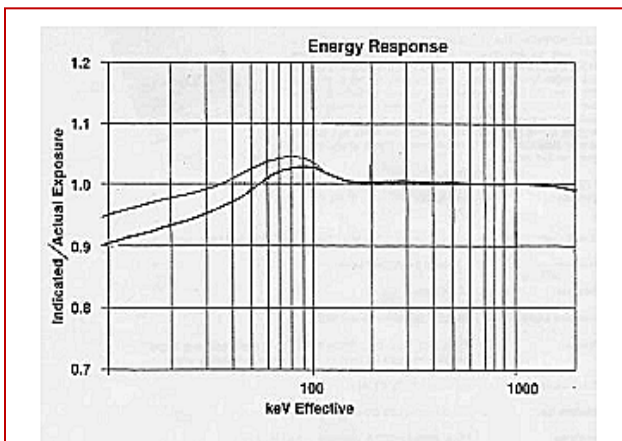
APPLICATION:

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 lighter. 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 μ Sv/h Dose Rate.

- Integrated Dose reads in total R or optional total Sv.
- The Ion Chamber has 180 mg/cm² graphite lined methacrylate walls giving accurate "air equivalence".
- A thin (0.5 mg/cm²) Mylar window allows high sensitivity readings for Alpha and for low energy Beta such as C¹⁴.
- X-ray sensitivity is down to 2 KeV as well as higher energy Betas and Gammas.



*Note: TA also makes ion chambers that measure up to 10 million R/hr

See [ION CHAMBER COMPARISON CHART](#)



TECHNICAL ASSOCIATES

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DIVISION OF



USNUCLEARCORP

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WIDE RANGE ION CHAMBER

Model ~ TBM-IC-HLS

SPECIFICATIONS:

Detector: Flat Response Air ion chamber 3" dia x 3" long. Nominal Internal volume 300 cc.
Wall & Cap: Methacrylate, graphite lined 180 mg/cm² walls and 540 mg/cm² cap "Air Equivalent".
Energy Window: 2.4" dia. x 0.5 mg/cm² Mylar.
Display: 6 digit LCD
Alarm Indicator: Green – Mid Range; Red – High Range

Two Position Range Change Switches:

- 0.1 mR/hr to 1,000 R/h (1 µSv/h to 10 Sv/h) in two ranges. – Dose Rate
- 100 µR/h to 1 R/h (1 µSv/h to 10 mSv/h) - Dose Rate (Intermediate Range)
- 1 R/h to 1,000 Sv/h (10 mSv/h to 10 Sv/h) - Dose Rate (High Range)
- 0.01 mR to 1,000 R (0.1 µSv to 10 Sv) – Total Dose

Energy Range: Sees Alpha, Beta, Gamma, X-Ray, C-14 Down to KeV axially with Cap Off
Radially & axially: Beta, Gamma, X-Ray to < 5KeV with Cap On
1 KeV – 10 MeV

Electrometer: Solid State MOSFET input.

Electronics: A-D converter LCD drivers.

Batteries:

- 1 set of Lithium batteries and charger
- 6 ea. (AA) - 1000hr.

Operating Temp: -4° F to 122° F (-20° C to 50° C); RH: 0-90%

Weight & Dimensions:

Dimensions: 6" x 4" x 12" (15 cm x 10 cm x 30 cm) including handle.

Weight: 28 oz. complete with battery. (870 grams)

Options:

- ✓ Readout in SI units: Sv and Sv/h.
- ✓ Thicker chamber wall to 1g/cm²
- ✓ Thin Cap same thickness as chamber side wall (180 mg/cm²).
- ✓ Closed chamber (no mylar window).
- ✓ Alarm light on mR/h- Rate Mode
- ✓ RS-232 Serial Output

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



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