

# GAMMA - X-RAY SURVEY METER "CUTIE PIE" GENERAL PURPOSE ION CHAMBER

Model ~ TBM-IC-MARK V

## FEATURES:

- PORTABLE ION CHAMBER
- DIGITAL SURVEY METER
- OMNI DIRECTIONAL RESPONSE TO LOW ENERGY X-RAYS & SCATTER
- SEES AXIALLY BELOW 5 KEV GAMMA OR X-RAY
- WIDE RANGE: 0.1 mR/hr to 10,000 mR/hr
- BOTH DOSE RATE & TOTAL DOSE 8 DIGIT READ OUT
- SMALL LIGHTWEIGHT TBM PACKAGE; 26 oz.
- FLAT RESPONSE - FREE AIR ION CHAMBER
- SEES ALPHA, BETA, GAMMA, X-RAY
- FAST RESPONSE
- **IP64; CE MARK**
- **OPTIONAL X-RAY COMPLIANCE SLEEVE**



## APPLICATION:

Whenever the TBM-IC, a fast, sensitive ion chamber instrument is needed, the **TBM-IC-MARK-V** is the latest in a series. Important for use in medical departments including Oncology, Treatment & Diagnostic Areas, Radiology & Imaging, PET Scanners, and Gamma Knife.

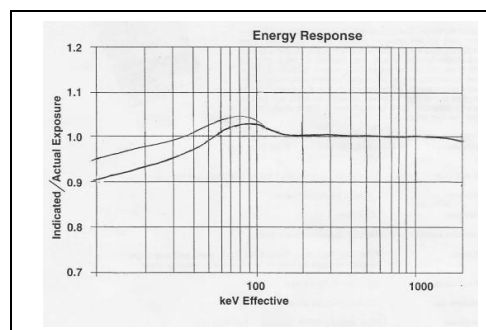
## DESCRIPTION:

The **TBM-IC-MARK V** is a general purpose Gamma X-Ray Survey Meter known as the "Cutie Pie". It consists of a 2.5" dia x 3.5" long air ion chamber coupled to a stable solid state MOSFET input electrometer with built in A to D converter to read out directly in mR/h or mR. The **TBM-IC-MARK V** ion chambers are now smaller and lighter. Stable, essentially drift-free electrometer technology.

**Rate range** is 0.1 mR/h to 10,000 mR/h in a single range. Integrated Dose Range is 0.01mR – 100 R in a single range. 180 mg/cm<sup>2</sup> graphite lined methacrylate walls 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 C14 in addition to higher energy Betas, Gammas and X-rays.

**Unlike other instruments the TBM-IC-Mark-V protects staff workers by detecting low energy scattered radiation which other instruments ignore.**



**TECHNICAL ASSOCIATES**  
**OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303  
818-883-7043 (Phone) 818-883-6103 (Fax)

[tagold@nwc.net](mailto:tagold@nwc.net)

[WWW.TECH-ASSOCIATES.COM](http://WWW.TECH-ASSOCIATES.COM)

Divisions of  US NUCLEAR CORP

TICKER UCLE

# GAMMA - X-RAY SURVEY METER "CUTIE PIE"

## GENERAL PURPOSE ION CHAMBER

Model ~ TBM-IC-MARK V

### SPECIFICATIONS:

<b>Detector:</b>	Free Air ion chamber 2.5" dia x 3.5" long. Internal volume 260 cc
<b>Wall &amp; Cap:</b>	Methacrylate, graphite lined 180 mg/cm <sup>2</sup> walls and 540 mg/cm <sup>2</sup> Beta cap.
<b>Optional:</b>	1g/cm <sup>2</sup> walls.
<b>Window:</b>	2.0" dia. x 0.5 mg/cm <sup>2</sup> Mylar.
<b>Readout:</b>	LCD 8 digits.
<b>Indicator Lamp:</b>	<b>Green LED:</b> High Range; <b>Red LED:</b> Over-Range Indicator
<b>Range: Rate:</b>	6 digit 0.1 mR/h to 10,000 mR/h in a single range or 0 µSv/hr to 100,000 µSv/hr
<b>Integrated Total Dose:</b>	8 digits 0.01 mR to 100 R in a single range.
<b>Controls:</b>	3 Way Toggle: On/Off/Battery Check; Zero Set Dial Zero Set Button-puts in Zero Offset while Depressed 2 buttons on Display: (1 Reset for Integrate Mode 1) Toggles Dose to Dose Rate
<b>Operating Temp:</b>	-35° C to 75° C

### ELECTRONICS:

<b>Electrometer:</b>	Solid State MOSFET input.
<b>Electronics:</b>	A-D converter LCD drivers.
<b>Batteries:</b>	15 ea. (Button) NEDA CR-1220 - shelf life 7 years. 6 ea. (AA) NEDA 15A - 1000hr.

### DIMENSIONS & WIEGHT

<b>Dimensions:</b>	5-1/2" x 3-1/2" x 8" including handle.
<b>Weight:</b>	26 oz. complete with batteries.

### OPTIONS:

Readout in Si units: Sv and Sv/h.  
**X-Ray-SLV is optional X-Ray compliance sleeve with 10cm<sup>2</sup> aperture.**



**TECHNICAL ASSOCIATES**

**OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303  
818-883-7043 (Phone) 818-883-6103 (Fax)

[tagold@nwc.net](mailto:tagold@nwc.net)

[WWW.TECH-ASSOCIATES.COM](http://WWW.TECH-ASSOCIATES.COM)

Divisions of  US NUCLEAR CORP

TICKER UCLE

# GAMMA - X-RAY SURVEY METER "CUTIE PIE"

## GENERAL PURPOSE ION CHAMBER

Model ~ TBM-IC-MARK V

### PORTABLE ION CHAMBER COMPARISON

Model	Range	Decades	Chamber Volume	Variation From Mark V (MV)
<b>TBM-IC-MARK V</b>	0.1-10,000 mR/h	5	300 cc	300cc Utilizes essentially drift-free electrometer technology. <b>NOTE:</b> Most popular model. Fits in a brief case. Great stability
<b>TBM-IC-MV-R</b>	0.1-50,000 mR/h	5.5	450 cc	Rugged aluminum chamber. Up to 50R/h. <b>NOTE:</b> Rugged for use in power plants, industry, and military
<b>TBM-IC-AJI</b>	0.05-10,000 mR/h	5	800 cc	More stable below 2mR/h. <b>NOTE:</b> Best-in-Field for all medical users
<b>TBM-IC-LR</b>	0.01-1,000 mR/h	5	2,000 cc	Sees 10 times lower, 2 litre chamber. <b>NOTE:</b> Detects background levels in 10 sec
<b>TBM-IC-HLS</b>	0.1 mr/h-1,000 R/h	7	300 cc	Plus second range to 1,000 R/h. <b>NOTE:</b> This very wide range conforms to <b>ANSI N42.33 Homeland Security Type 2</b>
<b>TBM-IC-BW</b>	1 µR/h-10 R/h	5	300 cc	Built-in microprocessor, auto ranging, built-in data logger. <b>NOTE:</b> Down to 0.0001 mR/h
<b>TBM-IC-XRAY</b>	0.1-10,000 mR/h	5	300 cc	Includes 10cm <sup>2</sup> aperture sleeve <b>NOTE:</b> Complies with <b>FDA regulation 21 CFR1020.40</b>
<b>CP-MU-D1</b>	0.1-1,000 KR/h	4	1 cc	60 foot cable, up to 10 <sup>6</sup> R/h <b>NOTE: Water proof design</b> allows for underwater monitoring in reactor and in spent fuel pool to 1 million R/h. <b>OPTIONAL:</b> 100 ft cable
<b>CP-MU-D1000</b>	0.1-1,000 R/h	4	1,000 cc	60 foot cable, up to 10 <sup>3</sup> R/h <b>NOTE:</b> Water-proof design allows for monitoring in both reactor and spent fuel pools
<b>CP-MU-7-D1 &amp; D1000</b>	1.0-10 million R/h	7	1 & 1,000 cc	System includes one electronics and two chambers <b>NOTE:</b> Unplug one detector and plug in the other to switch ranges



**TECHNICAL ASSOCIATES  
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303  
818-883-7043 (Phone) 818-883-6103 (Fax)

[tagold@nwc.net](mailto:tagold@nwc.net)

[WWW.TECH-ASSOCIATES.COM](http://WWW.TECH-ASSOCIATES.COM)

Divisions of US NUCLEAR CORP

TICKER UCLE