## Model ~ TBM-IC-BW SERIES

## Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

## **FEATURES:**

### **DETECTOR PORTABLE ION CHAMBER (IC):**

- ALPHA, BETA, GAMMA, X-RAY •
- ULTRA SENSITIVE SEES LOW ENERGY X-RAYS <30 KeV •
- FLAT RESPONSE FREE AIR ION CHAMBER
- NO PRESSURIZATION REQUIRED; FAST RESPONSE
- WIDE RANGE: 10 µR/h to 1,000 R/hr to (0.1 uSv/h to 10 Sv/h) (STANDARD- 300 cc) - TBM-IC-BW-A
- WIDE RANGE: 10 µR/h to 10.000 R/hr (10kR/h) (0.1 uSv/h to 100 Sv/h) . Ion Chamber 300 cc - TBM-IC-BW-AC
  - AC POWER
  - WALL MOUNT OR BENCHTOP NO HANDLE, WALL BRACKET OPTIONAL
- **CHOICE OF LARGER ION CHAMBERS (IC):** 1-LITER - 0.005 mR/h to 500 R/hr to (50 nSv/h to 5 Sv/h) TBM-IC-BW-B 2-LITER - LOW SENSITIVITY -

1.0 µR/h to 100 R/hr to (10 nSv/h h to 1 Sv/h) TBM-IC-BW-C

- SEVEN (7) DECADES
- OMNI DIRECTIONAL RESPONSE TO GAMMAS AND LOW ENERGY X-RAYS & SCATTER
- **REMOVABLE BETA CAP** 
  - SEES AXIALLY BELOW 1 KeV GAMMA OR X-RAY, **BELOW 100 KeV BETA**
  - WITH BETA CAP REMOVAL SEES ALPHA ABOVE 3.5 MeV
- SMALL LIGHTWEIGHT TBM PACKAGE; <2lbs (0.09 kg).

#### **ELECTRONICS:**

- DIGITAL SURVEY METER with INTERNAL MICROPROCESSOR
- ENGINEERING UNITS mR or µSv OTHER OPTIONS AVAILABLE
- POWER RECHARGEABLE BATTERIES AND CHARGER
- BRIGHT BACKLIT TOUCH SCREEN •
- REAL-TIME CLOCK AND DATE
- ALARMS: VISUAL/AUDIO USER SETTABLE .
- DOSE RATE & TOTAL DOSE 5 DIGIT READ OUT .
- SELF-CALIBRATING .
- USB OPTIONAL: RS-232 SERIAL PORT
- **IP63: CE MARK** •



IC 300 cc



**IC 1 LITER** 





#### **TBM-IC-BW DISPLAY SCREENS**



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## Model ~ TBM-IC-BW SERIES

## Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

## **APPLICATION:**

Use whenever a fast, sensitive ion chamber instrument is needed. The TBM-IC is an important Free Air Ion Chamber for use in medical departments including Oncology, Treatment & Diagnostic Areas, Radiology & Imaging, PET Scanners, and Gamma Knife. No pressurization is required.

### **DESCRIPTION:**

Unlike other market brands. Technical Associates thin wall lon Chambers provide detection axially below 1 KeV Gamma or X-Ray, and below 100 KeV Beta. The thicker chamber walls of other brands can lead to 0 readings (false negative). TA's TBM-IC instruments detect and thus protects the workforce from lower energy X-Ray exposure.

The TBM-IC-BW is a user-friendly instrument. The Touch screen provides easy access to the different microprocessor applications. The program allows editing of parameters. Optional: viewing the event log and clock synchronization.

The TBM-IC-BW-A, TBM-IC-BW-AC and TBM-IC-BW-B are Wide Range Portable Alpha, Beta, Gamma X-Ray Survey Meters.

- ✤ The standard TBM-IC-BW-A consists of a 3" dia. x 3" long, free air ion chamber with a 300 cc chamber volume. Portable. Battery Power.
- ٠ The standard TBM-IC-BW-AC consists of a 3" dia. x 3" long, free air ion chamber with a 300 cc chamber volume. Wall or Benchtop Mount. AC Power
- The larger TBM-IC-BW-B consists of a 4.7" dia. x 6" long, free air ion chamber with a 1-liter chamber volume. Portable. Battery Power

TBM-IC-BW-A, TBM-IC-BW-AC and TBM-IC-B are coupled to a stable solid-state electrometer with built in A to D converter to read out directly in mR/h or µSv/h. A removable Beta Cap is provided.

#### **BETA CAP SHIELD:**

The Beta cap shields the Thin Mylar low energy entrance window (0.5 mg/cm2).

- Removal of the cap allows high sensitivity and low energy readings for Alpha and for low energy Beta such as C14 and X-rays as well as to the higher energy Betas and Gammas.
- Removal of the cap provides detection axially below 1 KeV Gamma or X-Ray, and below 100 KeV Beta and • above 3.5.MeV/h Alpha.

The **TBM-IC-BW-C** is a Wide Range Portable Gamma and Higher Energy X-Ray Survey Meter.

The TBM-IC-BW-C consists of a 5" dia. x 13" long, free air ion chamber with a 2-liter chamber volume. \*

The TBM-IC-BW-C is coupled to a stable solid-state electrometer with built in A to D converter to read out directly in mR/h or µSv/h. No Beta Cap with this model.

\*Note: TA also makes ion chambers that measure up to 10 million R/h. See ION CHAMBER COMPARISON CHART

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These models do not require pressurization; facilitating ease of shipment.





Model ~ TBM-IC-BW SERIES

Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

	Free Air Ion	Chamber -	- Pressuriza	tion Is Not F	Required	
MODEL	LOW END SENSITIVITY and RANGE	CHAMBER VOLUME	CHAMBER WALLS	CHAMBER DIMENSIONS	SYSTEM DIMENSIONS	COMMENTS
TBM-IC-BW-A STANDARD CHAMBER REMOVABLE BETA CAP	10 μR/h to 1,000 R/hr (0.1 μSv/h to 10 Sv/h)	300 cc	6 mg/cm <sup>2</sup> methacrylate graphite lined walls	3" dia. x 3" long	Self-contained with electronics and handle. Dimensions and Weight: 4" x 3.5" x 11" (10 cm x 8.9 x 28 cm) excluding handle <2 lbs (0.9 kg). complete with batteries.	Gamma, X-Rays, Betas even at very Low Energies. Methacrylate graphite lined walls facilitates accurate ``air equivalence
TBM-IC-BW-AC CHOICE CHAMBER NO BETA CAP	10 μR/h to 10,000 R/hr (0.1 μSv/h to 100 Sv/h)	300 cc	6 mg/cm <sup>2</sup> methacrylate graphite lined walls	3" dia. x 3" long	Self-contained with electronics and handle. Dimensions and Weight: 4" x 3.5" x 11" (10 cm x 8.9 x 28 cm) excluding handle <2 lbs (0.9 kg). complete with batteries.	Gamma, X-Rays, Betas even at very Low Energies. Methacrylate graphite lined walls facilitates accurate ``air equivalence
TBM-IC-BW-B CHOICE CHAMBER REMOVABLE BETA CAP	5 μR/h to 500 R/h (50 nSv/h to 5 Sv/h)	1 Liter	6 mg/cm <sup>2</sup> methacrylate graphite lined walls	4.7" dia. x 6"	Self-contained with electronics and handle. Dimensions and Weight: 5.7" x 3.5" x 17" (10 cm x 8.9 x 43 cm) excluding handle. <2 lbs. (0.9 kg). complete with batteries.	Gamma, X-Rays, Betas even at very Low Energies. Methacrylate graphite lined chamber walls facilitates accurate ``air equivalence
TBM-IC-BW-C CHOICE CHAMBER NO BETA CAP	1.0 μR/h to 100 R/hr (10 nSv/h to 1 Sv/h)	300 cc	180 mg/m <sup>2</sup> Polished Aluminum – Corrosion Proof / Passivated – Easy To Clean	5" dia. x 13" long	Chamber contained within electronics case with handle. Dimensions and Weight: Instrument Case (Including handle): 10"W x 14"L x 10" H. 18 lbs (8.16 kg). complete with batteries.	Gamma and Higher Energy X-Rays Polished Aluminum – Corrosion Proof / Passivated – Easy To Clean

# **DETECTORS:**



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Model ~ TBM-IC-BW SERIES

Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

## **SPECIFICATIONS:**

#### WIDE RANGE - TBM-IC-BW SERIES:

Beta	Cap	Thickness:
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TBM-IC-BW-A, TBM-IC-BW-AC & TBM-	IC-BW-B: 540 mg/cm <sup>2</sup>
TBM-IC-BW SERIES DETECTORS:	Window: Thin Mylar 2.4" dia. x 0.5 mg/cm <sup>2</sup> .
TBM-IC-BW-A (300 cc Volume)	0.01 mR/h to 1,000 R/hr to (0.1 µSv/h to 10 Sv/h)
TBM-IC-BW-AC (300 CC Volume)	10 $\mu R/h$ to 10,000 R/hr (0.1 $\mu Sv/h$ to 100 Sv/h) Very High Sensitivity
TBM-IC-BW-B (1-Liter Volume)	0.005 mR/h to 500 R/hr to (50 nSv/h to 5 Sv/h)
TBM-IC-BW-C (2-Liter Volume)	1.0 μR/h to 100 R/hr (10 nSv/h to 1 Sv/h)

Detects Axially: With Cap Off:	Gamma or X-Ray - Below 1 KeV; Beta - Below 100 KeV; Alpha – Above 3.5 MeV
Dose Rate:	SEE FOLLOWING CHART FOR EACH INSTRUMENT.
Total Dose:	Is displayed on panel
Response:	Fast Dose Rate
Peak Hold:	Yes
Two Clocks:	1) Fast Response 2) Slow With Enhanced Sensitivity - User Settable

# **ELECTRONICS - TBM-IC-BW-SERIES:**

## DISPLAY - Bright Back-Lit Color:

Brightness:	User Settable
Dimension:	Display Panel Vertical View - 2.5" w x 4" h (6.3 x 10 cm) Optional: Horizonal View
Controls:	Touch Screen Menu
Status Indicator:	Green: High Range (10 Pulses/sec equals 1 mR/h)
	Red: Over-Range Indicator
Engineering Units:	mR/h or µSv/h – Other Engineering Units Available
Readouts:	LCD 5 digits – Self-Adjusting
Time And Date:	Real-Time - User Settable



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#### Model ~ TBM-IC-BW SERIES

Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

#### Data:

Electrometer:	Solid State Input.	
Electronics:	A-D converter.	

#### **Fully Functioning Internal Microprocessor**

	Internal Data Logging
	Data Archive and Retrieval
	USB Optional: RS-232; Real-Time up load via Wi-Fi
Power:	Rechargeable batteries and charger
Power:	AC (TBM-IC-BW-AC)
Alarms:	Visual/Audio: User Settable
Background:	Sees Below Background and sees small changes in background
	Background Subtract Feature
Calibration:	Self-Calibrating
Self-Test:	Yes
Zero Set:	Yes - Automatic
Operating Temp:	-10°F to 155° F (-23° C to 68° C)

## **DIMENSIONS & WIEGHT**

#### FREE AIR ION CHAMBERS AND ELECTRONICS:

#### TBM-IC-BW-A and TBM-IC-BW-AC – 300 cc Volume:

Dimensions:4" W x 3.5" H x 11" L (10 cm x 8.9 x 28 cm) excluding handle.Weight:<2 lbs (0.9 kg). complete with batteries.</th>

#### TBM-IC-BW-B – Choice of 1-Liter Volume System:

Dimensions:5.7" W x 3.5" H x 17" L (10 cm x 8.9 x 43 cm) excluding handle.Weight:<2 lbs. (0.9 kg). complete with batteries.</th>

## **DIMENSIONS & WIEGHT**

#### TBM-IC-BW-C - Choice of 2-liter Volume System with Electronics Case:

Dimensions:	Instrument Case (Including handle):	10"W x 14"L x 10" H (25.4 x 35.6 x 25.4 cm).
Weight:	18 lbs. (8.16 kg).complete with batteries	5.



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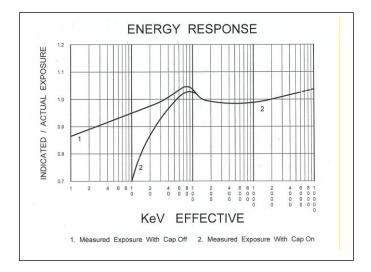
## Model ~ TBM-IC-BW SERIES

## Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

#### **OPTIONS:**

•

- Allows trend and chart recorder view
- HP-10 Mode (Depth Dose)
- X-Ray compliance sleeve with 10cm2 aperture TBM-IC-BW-A
  - Choice of Chambers: TBM-IC-BW-A and TBM-IC-BW-AC Standard 300 cc; TBM-IC-BW-B 1-liter; TBM-IC-BW-C 2-liters



#### TBM-IC-BW-A, TBM-IC-AC, TBM-IC-BW-B



Model ~ TBM-IC-BW SERIES

Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C



# VARIOUS DISPLAY SCREENS TBM-IC-BW-SERIES









# Real - Time Air & Water Specialists

# TECHNICAL ASSOCIATES

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Slide to change value

Tap to advance to next field

Set to store. Exit to cancel

04/09/2024 14:48:13

04/09/2024 14:47:00

Set

Exit

## Model ~ TBM-IC-BW SERIES

Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

- Technical Associates thin wall Ion Chambers provide detection axially below 1 KeV Gamma or X-Ray, and below 100 KeV Beta.
- Other market brands have thicker chamber walls of which can lead to 0 readings (false negative) even though significant exposure.
- TA's TBM-IC (Ion Chamber) instruments detect and thus protects the workforce from lower energy X-Ray exposure.
- \* Not pressurized, therefore safe for shipment
- **\*** Pin hole leak in chamber does not create a risk of declining reading because it is not pressurized.

# ION CHAMBERS - AIR AND SURFACE - PART I ~ UNDERWATER - PART II

	ION CHAMBERS - AIR AND SURFACE – PART I									
	Model	Range	Decades	Chamber Volume	Features	Lock Out Features				
1	CURIE- H3-PLO	0.1 to 10,000 mCi (10 C) 3.7 to 10 <sup>6</sup> Bq to 37 to 10 <sup>10</sup> Bq	5	53 cc	HIGH RANGE TRITIUM WIPE TEST COUNTER 3" Sample drawer	HIGH RANGE TRITIUM Sample Measurement Range Is Up To 10 Curies. Display Units User Settable: Femto Amps, μCi, DPM, Bq, No Counting Gas Or LSC Cocktail Required ~Does Not Generate Waste~				
2	TBM- ACC-X	50 mR/s 500 mSv/s	4	450	ULTRA HIGH ENERGY BETA, GAMMA, COSMIC RAYS Sealed Plasma Chamber. Detects accelerator produced pulses and radiation.	HIGH ENERGY EVENT DETECTOR The ONLY portable accelerator plasma chamber® that will detect accelerator produced pulses and radiation. NOTE: Uses a unique plasma chamber that prevents high ion recombination to achieve a strong accurate signal. NOTE: Use in high energy accelerator - LINAC				
3	<u>TBM-IC-</u> AJI	0.05-10 R/h 0 µSv/h to 100,000 µSv/h (In a single range)	5.5	1,000 cc	ALPHA, BETA, GAMMA More stable below 2mR/h.	MEDICAL VERSION Enhanced sensitivity with large volume chamber. NOTE: Preferred unit by medical users. (In a single range) Removable Beta Cap				



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Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

6	TBM-IC- BW (3) Models A, B, C (In a single range)	<ul> <li>(A) 0.01 to 1,000 R/h</li> <li>0.1 μSv/h to 10 Sv/h</li> <li>(B) 0.005 mR/h-1,000 R/h</li> <li>50 nSv/h to 5 Sv/h</li> <li>(C)</li> <li>1.0 μR/h to100 R/h</li> <li>10 nSv/h to 1 Sv/h</li> </ul>	5	(A) 300 cc (B) 1- liter (C) 2- liter No Beta Cap	ALPHA, BETA, GAMMA All-around Multi- purpose with Wide versatility (A) Standard 0.01 R/h to 1,000 R/h. 0.1 µSv/h to 10 Sv/h	MULTIPLE-USE With the Beta cap removed TBM-ICs can measure Alphas 3.5 MeV/h, and low energy Betas of 100 KeV/h and Gammas down to 1 KeV/h. Touch Screen Display (In a single range) Removable Beta Cap (A) and (B)
5	TBM-IC- HLS	0.1mR/h to 1,000 R/h 1 μSv/h to 10 Sv/h (In a single range)	7	300 cc	ALPHA, BETA, GAMMA Toggle switch to additional second range to 1,000 R/h.	HOMELAND SECURITY VERSION NOTE: . This ultra-wide range conforms to ANSI N42.33 Homeland Security Type 2 (In a single range) Removable Beta Cap
4	TBM-IC- LR	0.1 to 1 R/h 1.0 uSv/h to 10 Sv/h (In a single range)	5	2,000 cc	ALPHA, BETA, GAMMA Sees 10 times lower, 2 liter chamber.	ULTRA-LOW RANGE SENSITIVITY. NOTE: with extra-large volume chamber – 2 liter detects background levels in 10 sec. (In a single range) Removable Beta Cap
6	<u>TBM-IC-</u> MARK V	0.1 to 10 R/h 0 μSv/h to 100,000 μSv/h (In a single range)	5	300 cc	ALPHA, BETA, GAMMA All-around Multi- purpose with Wide versatility from 0.1 mR/h - 10 R/h.	MULTIPLE-USE With the Beta cap removed TBM-ICs can measure Alphas and low energy Betas of 30 KeV and Gammas down to 1 KeV. NOTE: Most popular model. (In a single range) Removable Beta Cap
7	<u>TBM-IC-</u> <u>MVR</u>	0.1 to 50,000 mR/h 1.0 μSv/h to 0.5 Sv/h (In a single range)	5.5	450 cc	GAMMA & HIGH BETA Rugged aluminum chamber. Up to 50R/h.	MILITARY VERSION. NOTE: Rugged for use in power plants, industry, and military. (In a single range)
	TBM-ICP	0.1 mR/hr to 50,000 mR/hr (1 μSv/h to 0.5 Sv/h)	5.5	450cc	BETA, GAMMA, X- RAY Portable Micro Ion Chamber	Rugged aluminum chamber. Up to 50R/h. <b>NOTE:</b> Rugged for use in power plants, industry, and military



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## Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

8	TBM-IC PULSE-X	0.01 R/h to 50 R/h 0.1 $\mu$ Sv/h to 500 mSv/h (In a single range) PULSE MODE 1.0 mR/h to 50 R/h 10 $\mu$ Sv/h to 500 mSv/h (In a single range) (8 digits)	5	450 cc	PULSED X-RAY Sealed Plasma Chamber. Detects pulsed X-Ray response.	<ul> <li>WORLD'S ONLY 20 NANOSECOND PULSED X-RAY DETECTOR.</li> <li>Wide Energy Response (In a single range)</li> <li>NOTE: Uses a unique plasma chamber that prevents high ion recombination to achieve a strong accurate signal.</li> <li><u>Suitable for Pulse Width:</u> 20 nano- seconds to continuous emission</li> <li><u>Repetition Rates:</u> Single pulse to 1000/second and above</li> <li><u>Wide Energy Response</u>: 2 KeV to 10 MeV &amp; above</li> </ul>
9	TBM-IC- RN	10 pCi/l to 1 μCi/l 370 Bq/m <sup>3</sup> to 3.7 x (In 10 <sup>7</sup> Bq/l a single range)	4	600 cc.	WIDE RANGE RADON Optional: 4 cfm pump for solid wall chamber	PORTABLE WIDE RANGE RADON 10 pCi/l in 5 seconds & detects public release level in less than 10 minutes. Two non-pressurized ion chambers are included; an open screen chamber, (no pump required) and a solid wall chamber , (pump required). (In a single range) NOTE: *less than 1 minute Indication FOR VERY HIGH LEVELS.
10	TBM-IC- XRAY	1mR/h -10 R/h 0 μSv/hr to 100,000 μSv/hr (In a single range)	5	300 cc	X-RAY Includes required 10cm <sup>2</sup> aperture sleeve. X-Ray compliance meter.	X-RAY COMPLIANCE METER (In a single range) NOTE: Complies with FDA regulation 21 CFR1020.40



OTCQB-UCLE

Model ~ TBM-IC-BW SERIES

Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

	ION CHAMBERS - UNDERWATER – PART II									
	ULTRA HIGH RANGE ION CHAMBERS - RUGGED WATER PROOF DESIGN									
	Model	Range	Decades	Chamber Volume	Features	Lock Out Features				
11	CP-MU- GN	0.1KR/h to 1000.0 KR/h 100 R/h to 10 <sup>6</sup> R/h 1 Sv/h to 10,000 Sv/h	4	lon Chamber 1 cc Proportion al Chamber	GAMMA & NEUTRON System includes CP- MU electronics unit and dual probes: (1)Gamma – Ion Chamber and (1) Neutron – Proportional Chamber 60-foot low noise cable, up to 10 <sup>6</sup> R/h OPTIONAL: 100 ft cable	VERY HIGH RANGE GAMMA & NEUTRON Dual INLINE Detector Two Channel System RS-232 communications for data collection or remote computer readout. NOTE: Rugged Water proof design allows for underwater Ultra High-level monitoring in reactor and in spent fuel pool to 10 <sup>6</sup> R/h.				
12	СР-МU- 10К	0.1 R/h to 10,000 R/h 1R/h to 10 <sup>4</sup> R/h 1 μSv/h to 10 mSv/h Sv/h <b>Optional:</b> 0.1 – 20,000 R/h	5	100 cc	GAMMA System includes CP- MU electronics unit and one stainless steel chamber/probe. 60-foot low noise cable, up to 10 <sup>6</sup> R/h OPTIONAL: 100 ft cable	VERY HIGH RANGE GAMMA Works as both underwater and as a Super High Range Survey Meter. RS-232 communications for data collection or remote computer readout. NOTE: Rugged Water proof design allows for underwater Ultra High-level monitoring in reactor and in spent fuel pool to 10 <sup>4</sup> R/h.				
13	CP-MU- D1	0.1-1,000 KR/h 1Sv/h to 10KSv/h	4	1 cc	GAMMA System includes CP- MU electronics unit and one stainless steel chamber/probe. 60-foot low noise cable, up to 10 <sup>6</sup> R/h OPTIONAL: 100 ft cable	VERY HIGH RANGE GAMMA RS-232 communications for data collection or remote computer readout. NOTE: Rugged Water proof design allows for underwater Ultra High-level monitoring in reactor and in spent fuel pool to 10 <sup>6</sup> R/h.				



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Model ~ TBM-IC-BW SERIES

Models ~ TBM-IC-BW-A ~ TBM-IC-BW-AC ~ TBM-IC-BW-B ~ TBM-IC-BW-C

14	CP-MU- D100	1mR/h to 10,000 R/h 1R/h to 10 <sup>4</sup> R/h 10 mSv/h to 100 Sv/h	4	100 cc	GAMMA System includes CP- MU electronics unit and one aluminum chamber/probe. 60-foot low noise cable, up to 10 <sup>3</sup> R/h OPTIONAL: 100 ft cable	MID RANGE GAMMA RS-232 communications for data collection or remote computer readout. NOTE: Rugged Water proof design allows for monitoring in both reactor and spent fuel pools to 10 <sup>3</sup> R/h.
15	CP-MU- D1000	0.1 to 1,000 R/h 1 uSv/h to 10 Sv/h	4	1,000 cc	LOW RANGE GAMMA System includes CP- MU electronics unit and one aluminum chamber/probe. 60-foot low noise cable, up to 10 <sup>3</sup> R/h OPTIONAL: 100 ft cable	LOW RANGE GAMMA RS-232 communications for data collection or remote computer readout. NOTE: Rugged Water proof design allows for monitoring in both reactor and spent fuel pools to 10 <sup>3</sup> R/h.
16	CP-MU-7- D1 & D1000	1.0 to 10 million R/h 10mSv/h to 100KSv/h	7	1 cc & 1,000 cc	GAMMA System includes CP- MU-7 electronics and dual probes: (2) Gamma – Ion Chambers (1)High Range and (1)Low Range 60-foot low noise cable, up to 10 <sup>7</sup> R/h OPTIONAL: 100 ft cable	DUAL DETECTOR SYSTEM ULTRA- HIGH AND LOW RANGES RS-232 communications for data collection or remote computer readout. NOTE: Rugged Water proof design allows for Ultra High-Level monitoring in both reactor and spent fuel pools to 10 <sup>3</sup> R/h Unplug one detector and plug in the other to switch ranges



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