

# HIGH ENERGY ACCELERATOR AREA MONITOR PLASMA CHAMBER®

Model – PLASMA-ACC

## FEATURES:

- HIGH MeV BETA, GAMMA, X-RAY, PHOTONS, PARTICLES
- READS UP TO 50 mR/sec (other ranges available)
- DIGITAL READOUT: 6 digit-rate, DOSE RATE
- WALL MOUNT BRACKET
- FLAT RESPONSE - SEALED PLASMA CHAMBER®
- FAST RESPONSE
- ALARMS: AUDIO / VISUAL
- AC OPERATION / BATTERY BACK UP
- **IP 64**
- **CE MARK**



## AREA MONITOR FOR ACCELERATORS

**UNIQUE PLASMA CHAMBER® PROVIDES  
MORE ACCURATE RESPONSE**

**HIGH MeV GAMMA / X-RAYS / PHOTONS / PARTICLES.**

## APPLICATION:

Use in Accelerator & Linac facilities for high energy density from High MeV Gammas or X-Rays and from Nano Second Pulsed X-Rays / Photons.

**PHOTON PLASMA DETECTOR FOR MEDICAL, INDUSTRIAL, & GOVERNMENT ACCELERATORS  
WITH X-RAYS OR GAMMAS OVER 2 MeV ENERGY.**

## WHY IS THIS CAPABILITY NEEDED?

- The nanosecond pulsed X-Rays & the 2 MeV and higher X-Rays and Gammas have so much energy that they create dense plasma inside the plasma chamber. The plasma quickly collapses and disappears & the energy turns into minor heat and turbulence.
- The PLASMA-ACC is able to accurately collect and display the amount of energy in the plasma before it collapses. Other brands and models do not.

## RESPONSE:

**PLASMA-ACC** is the **ONLY** accelerator plasma chamber® that will detect nanosecond pulsed X-Rays. It will accurately measure the integrated Total Dose from pulsed X-Ray machines over a wide range of pulse widths & repetition rates.



**TECHNICAL ASSOCIATES  
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Divisions of



US NUCLEAR CORP

TICKER UCLE

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Model – PLASMA-ACC

## DESCRIPTION:

The **PLASMA-ACC** consists of a plasma chamber coupled to a Digital display that reads out directly the averAGE mR/h or total mR.

## SPECIFICATIONS:

### PULSED X-RAY RESPONSE

### MEASURES RADIATION DELIVERED AT 10<sup>5</sup>R/sec FOR THAT 20 NANO SECOND PERIOD

<b>Total Dose:</b>	1 mR to 100 R in a single range (8 digits)
<b>Dose Rate Range:</b>	1 mR/hr to 10,000 mR/hr (6 digits) or 10 mR/h to 100,000 mR/h
<b>Pulse Width Range:</b>	20 nano-seconds to continuous emission
<b>Repetition Rates:</b>	Single pulse to 1000/second
<b>Wide Energy Range:</b>	2 KeV to 10 MeV
<b>High Dose Limits:</b>	Per customer specification*

**User should inform TA of highest-expected:** 10-second, total-dose exposure

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

<b>Detector:</b>	Sealed Plasma chamber
<b>Cap:</b>	Removable protective cap
<b>Window:</b>	0.5 mg/cm <sup>2</sup> Kapton.
<b>Readout:</b>	LCD 8 digits with capacity backlight
<b>Count Lamp:</b>	Green Flashing LED
<b>Over-Range:</b>	Red LED Indicator
<b>Audio Alarm:</b>	User settable anywhere within TBM range
<b>Power:</b>	AC 110/220
<b>Battery Back Up:</b>	NEDA 15A, 6 ea. (AA)– 200 hour life with typical use.
<b>Dimensions:</b>	5-1/2" x 3-1/2" x 8" including handle.
<b>Weight:</b>	2.9 lbs. complete with batteries.

### Options:

Other Rate or Integrated Ranges

Other Readout Units such as Si units: Sv and Sv/h.



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