



## MAX 4000 ELECTROMETER



The MAX 4000 Electrometer is a superior instrument for accurate measurement of an extremely wide range of all brachytherapy sources, low dose rate, high dose rate, and cardiovascular.

It is versatile enough to be used for all external beam and diagnostic x-ray applications.

### Intuitive Interface

- Easy to use, no complicated set up required

### Easily Portable

- Lightweight with a small footprint

### Large Comprehensive Display

- The amp, coulomb, and collection time can be displayed simultaneously, minimizing the need to switch screens.

### Excellent Sensitivity

- 0.001pA to 195.00nA range
- 0.01pC to 999,999nC range

### Digital Filter

- A digital filter built into the MAX 4000 eliminates the effect of noise.
- This results in a very stable and exact measurement.

### Easy to Use

- The user interface is intuitive, simple and straightforward to use so you can do your work quickly.
- A few buttons control all operations.
- User activated automatic zeroing: press a button and you are ready to measure!

- Large, easy to read LCD display: visible from a distance and in low light.

## Brachytherapy

Exceptional sensitivity and a wide dynamic range makes MAX 4000 the electrometer of choice for all brachytherapy measurements. It provides immediate measurements of even the lowest activity isotopes. For example, a 0.27mCi iodine seed, measured in the HDR 1000 Plus Well Chamber, gives a signal of 1.458pA. It can also measure 10Ci and higher iridium sources.

## External Beam Radiation Therapy

The MAX 4000 works exceptionally well with all ion chambers typically used for data acquisition in water phantoms, and with all chambers used for quality assurance tests.



## SPECIFICATIONS

<b>Four modes:</b>	Rate, Charge, Timing, and combined Rate and Charge	<b>Zero Drift:</b>	< 1fA @STP
<b>Rate:</b>	Low Range: 0.001 pA - 950.00 pA, 1 fA resolution High Range: 0.001nA - 195.00 nA, 1 pA resolution	<b>Display:</b>	LCD, 2 x 20 with 3/16" high letters for easy viewing
		<b>Input:</b>	BNC two lug, triaxial connector
		<b>Bias Voltage:</b>	Nominal $\pm$ 300 volt bias
<b>Charge:</b>	Low Range: 0.01 pC - 999,999 nC, 10 fC resolution High Range: 0.01 nC - 999,999 nC, 10 pC resolution	<b>Five user settings:</b>	-300, -150, 0, 150, 300 (VDC)
<b>Timing:</b>	Selectable time periods for charge collection Range: 0-600 seconds Increments: 15	<b>Accuracy:</b>	$\pm$ 0.3 volt

	seconds Resolution: 1 second Other mode: "free running"		
<b>Combined:</b>	The accumulated charge and the current readings are displayed simultaneously.	<b>Power:</b>	UL listed wall-mounted power supply, 110 or 220 VAC input, 9VDC@300 mA output Internal battery: 10 hrs/charge
<b>Range Switching:</b>	User selectable: High or Low	<b>Zeroing:</b>	Automatic zero function, user activated
<b>Repeatability:</b>	Short term, $\pm 0.1\% \pm 1$ count Long term, $\pm 0.2\%$ (maximum change over two years) Signal setting time (typ) signal < 2 nA - 12 seconds signal > 2 nA - 3 seconds	<b>Output:</b>	Isolated RS-232, Bi-directional, 19,200 baud rate, 8 data bits, no parity, 1 stop bit
<b>Linearity:</b>	$\pm 0.06\%$ typical for all rate and charge settings	<b>Dimensions:</b>	Height: 2.75 inches, 7 cm Length: 9 inches, 23 cm Width: 8.24 inches, 22.2 cm Weight: 3.0 lbs., 1.4 kg

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