

DGC-II

The DGC-II has been designed for intraoperative detection of increased radioactivity uptake areas.

The DGC-II system comprises a Detector Probe and a Control and Visualization Unit.

The Detector Probe has more sensitivity and better spatial resolution than required for the accurate identification of *hot spots* like sentinel lymph nodes and other small *hot points* inherent to radio guided surgery.

The Probe Head contains a CdTe (Zn) crystal surrounded by a tungsten shielding – collimator assembly. A low noise preamplifier is located into the Probe handle, to adequate the signals produced at the crystal every time it is reached by a gamma ray.

The Control and Visualization Unit receives such signals and, after analyzing it, shows digitally the count rate on a large numeric display. In addition to this, the read out is accomplished also by an audible signal and a bar LEDs array where the number of bars lit is proportional to the count rate. The Control and Visualization Unit is supplied only by a built in recargable battery. No mains cable is present while operating.

The DGC-II is capable of detecting different nuclides commonly used in nuclear medicine. The standard option is factory adjusted for Tc-99m.

- HIGH EFFICIENCY SOLID STATE DETECTOR
- UNSURPASSED SPATIAL RESOLUTION
- ANGLED PROBE HANDLE WITH ERGONOMIC DESIGN
- OPTIMIZED DISCRIMINATION BETWEEN HOT SPOTS AND BACKGROUND
- AUDIBLE SIGNAL PROPORTIONAL TO COUNT RATE
- DIRECT READ OUT ON A HIGH LUMINOSITY NUMERIC DISPLAY
- LARGE AUTONOMY, BUILT IN RECHARGEABLE BATTERIES
- CARRYING CASE

DETECTOR PROBE

Detector: CdTe (Zn) Crystal 5 x 5 x 3 mm

Built in low noise preamplifier

Energy Range: 20 to 400 keV

Built in Tungsten Shielding/Collimator

Final Size of the Probe:

Length: 170 mm

Head Diameter: 12 mm

Main axle diameter: 10 mm

Head angle: 35° (for easy access in small incisions)

Probe Weight: 70 g (excluding cable)

CONTROL AND VISUALIZATION UNIT

Power: Built in rechargeable batteries

Maximum count rate: 20000 cps (counts per second)

Operation Temperature Range: + 15°C to + 40°C

Size:

Height: 10 cm

Width: 30 cm

Depth: 30 cm

Three user selectable energy windows

Autonomy: > 7 hours with full battery charge

All these parameters are nominal, and can be modified by the manufacturer without previous advise.

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