

## The most advanced Gamma Probe?

You only have to look at the design and manufacturing team behind the First Sensor Probe to realise it is something very special.

The company develops and produces complete sensor solutions for radiation detection at its location in Berlin. Across the fields of research, science and oncology, First Sensor offers a completely integrated system for measuring gamma radiation.

The design is sleek and utilises a high grade stainless steel housing for the probe, available in 3 different sizes, it combines excellent ergonomics and balance in the hands of the surgeon.

With one push of a button the panel PC boots and is immediately ready for radiation detection with no warm up or calibration required.

Whilst the probes are cordless, the screen information enables you to navigate very accurately to the gamma source; **the maximum count collated stays on screen and can guide the surgeon back to the highest reading at any time.**



## Special Features

- **Maximum count collated stays on screen, allowing the area to be scanned without losing the maximum count location**
- Wireless probe with Bluetooth™ connection to panel PC
- Navigation arrows identify unwanted drifting of the probe from the source
- Sensitivity for  $^{99m}\text{Tc}$  (140 keV) above 18,000 cps/MBq
- Spatial resolution: Full Width at Half Maximum (FWHM) for  $^{99m}\text{Tc}$   $\approx$  7 mm
- Preset isotopes:  $^{99m}\text{Tc}$ ,  $^{111}\text{In}$ ,  $^{123}\text{I}$ ,  $^{131}\text{I}$



First Sensor - has over 20 years of experience in the development and manufacture of unique sensor solutions, offering the highest levels of precision and reliability.

First Sensor - possess innovation and expertise in medical, industrial applications and the aerospace sector.

First Sensor was founded in 1991 in Berlin; employs 750 employees worldwide and is one of the fast growing technology companies on the Frankfurt stock exchange.

## Key Areas

- **NASA Mars Camera**
- **Medical Radiation Detection**
- **Satellite and Orientation Systems**
- **Aerospace and Military Systems**

# Gamma Probe System



Optimized for measurement of gamma radiation in the energy range 60 to 600 keV

## Features

- Sensitivity for  $^{99m}\text{Tc}^*$   $\geq$  18,000 cps/MBq
- Spatial resolution: Full width at half maximum for (FWHM) for  $^{99m}\text{Tc}^*$   $\approx$  7 mm
- Shielding > 99.9 %

## Description

Silicon photodiode with caesiumiodid (CsI) scintillator for measurement of gamma raditon (e.g.  $^{99m}\text{Tc}^*$ )

Size of probe:

Length: 250 mm  
Ø probe: 18 mm  
Ø tip: 12 mm  
Weight: 190 g

## Application

Sentinel lymph node biopsy for types of cancer were metastasis occur in lymph nodes, such as malignant melanoma, breast, head and neck, thyroid, prostate or cervical cancer

## Features

- Ergonomically designed wireless stainless steel probe
- Handling via 30.7 cm (12.1") touchscreen panel PC
- Bluetooth™ wireless connection between probe ( $\geq$  10 m)
- Preset measurement parameters for different isotopes
- Different user profiles can be stored
- Various graphic and acoustic display modes
- Quality control possible due to measurement recording
- High security - no network access
- High noise immunity against high frequency noise sources (coagulator, HF scalpel) and mechanical exposure
- Panel-PC on table tripod, mobile stand as accessory
- Very low energy consumption: battery life span > 65 operating hours, customary batteries manually changeable

## Contacts:



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## Product and Delivery

- Wireless Gamma-Probe
- 12.1" panel PCs with touchscreen and USB connection
- Measurement and navigation software for Gamma-Probe
- Metal table tripod, power cable, li-ion batteries
- User manual

## Accessories

- Mobile stand with stainless steel shelf
- Sterile coatings for probe and panel PC
- Li-ion batteries

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