

Crystal Probe -automatic-

Gamma probe system with latest technology for radioguided surgery

SLN Sentinel lymph node excision | **ROLL** Radioguided occult lesion localization



reliable | versatile | easy to use | made in Germany

 **Crystal Photonics** - count on it!

The Crystal Probe -automatic- is a sophisticated measurement system for radioguided surgery. It is perfectly suited to localize radioactive labeled sentinel lymph nodes (SLN) as well as other nuclide enrichments in tissue and borders of labeled primary tumors (ROLL).

Two components make a system: Control unit and one or more probes.

Control Unit SG04

The control unit SG04 is the only one in the world that operates for up to 13 hours autonomously by the internally battery. The DUAL Mode simultaneous nuclide operation is integrated ¹²⁵I & ^{99m}Tc.

Fast system starts up and change of probes during operation in shortest time is possible.

Maintenance-free operation is guaranteed for users.



Features

- **Automated:** probe recognition, nuclide selection, system check
- **USB interface**
- **Preset energy windows** for all common nuclides
- **3 sound types:** 2x single tone, 1x continuous tone
- **3 pitch settings:** 1x, 10x, 100x
- **2 gate times:** 1s, 10s

Dimensions:

- Display: 5.5"; 11 x 8.5 cm
- Size: 25 x 27 x 15 cm (W x D x H)
- Weight: 4 kg



Crystal Probes

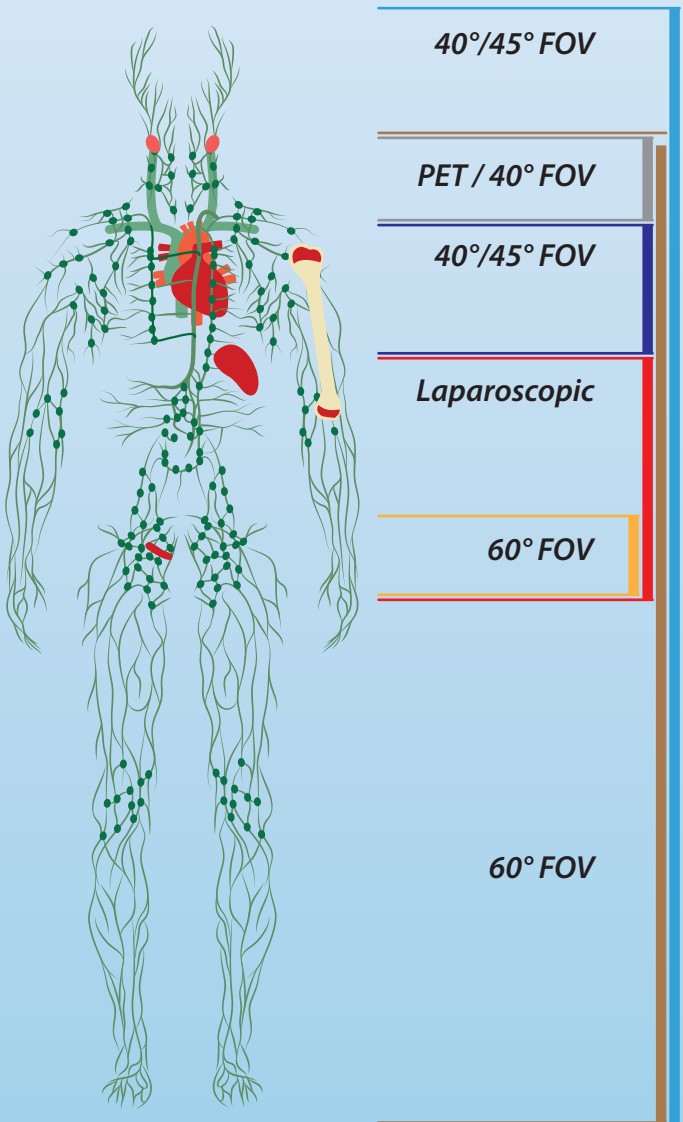
A wide range of detector probes for the control unit SG04 and new inventions for hot vapor sterilization are available.

The new GAAG WP probe is performing the highest sensitivity in the market > 25,000 cps/MBq.

The new DUAL Mode functionality enables the isotopes ¹²⁵I and ^{99m}Tc to be measured at the same time.

The probe energy range is from 20 keV up to 600 keV (gamma radiation).

All probes have an in-build fixed collimator with individual selected Field of View (FOV) feature to design disease specific application.



Crystal Wireless Probe

New DUAL Mode and GAGG

The probe combines highest precision with the advantage of a modern wireless and user-friendly medical instrument.

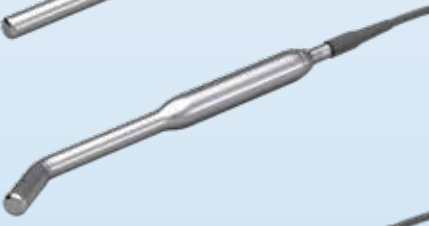
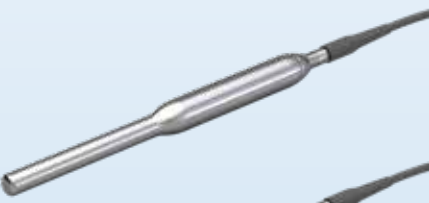
Recommended for: all body, breast

Special feature: Plug-on PET-collimator that extends the application range to higher energies (¹³¹I, 365 keV; ¹⁸F, 511keV).

Recommended for: oral cavity, thyroid, parathyroid

15 mm

30,6 mm



Crystal Straight Probe

- Autoclave usage (hot vapor sterilization)
- Fixed 45° collimator

13 mm

Crystal Angled Probe

- Probe head is 30° aligned
- Other FOV collimators on request

14 mm

Crystal Midi Probe

- 10mm diameter only
- Operate between ribs of human possible
- Lung treatment

10 mm

Crystal Drop-In Probe

- Tool probe for surgical robots
- Minimally invasive surgery
- Small form factor

10 mm

Laparoscopic Probes

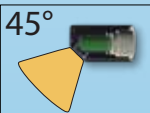
10 mm



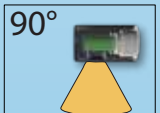
- for minimally invasive procedures
- long and narrow construction
- 3 different viewing directions



for general use in the stomach region



for urological use
• cervical, uterine, ovarian
• pancreatic, liver, colon



• prostate, penile
• lung

Physical-technical properties of the Crystal Probes

	Wireless	Straight	Angled	Midi	Laparoscopic	Drop-In
Article Number	200103	200266	200250	200086	200080 200082 200084	200269
Technology	GAGG, DUAL Mode	GAGG, DUAL Mode	GAGG, DUAL Mode	GAGG, DUAL Mode	GAGG, DUAL Mode	GAGG, DUAL Mode
Sensitivity	> 25.000 cps/MBq	> 17.500 cps/MBq	> 17.500 cps/MBq	> 17.500 cps/MBq	> 17.500 cps/MBq	> 17.500 cps/MBq
Collimator FOV	45°	45° Standard other FOV on request	45°	45°	0°-Probe: 45° 45°-Probe: 77°/62° * 90°-Probe: 77°/65° *	50°
Local resolution (in 1 cm)	< 14 mm	< 17 mm	< 17 mm	< 20 mm	< 20 mm	< 15 mm
Energy range	20 to 600 keV	20 to 600 keV	20 to 600 keV	20 to 600 keV	20 to 600 keV	20 to 600 keV
Energy resolution	< 15 keV	< 15 keV	< 15 keV	< 15 keV	< 15 keV	< 15 keV
Side shielding at 140 keV (^{99m} Tc)	99.95 %	99.95 %	99.95 %	99 %	99 %	99 %
Special Characteristics	Battery life up to 12 hours, CR123A Battery		Probe head angled at 30°	Works between human rib for lung treatment	Inserted through a trocar; Minimally-invasive surgery; 3 viewing directions	Use with robot assisted minimally invasive surgery Connection to control unit via additional dongle
Diameter detector head	15 mm	13 mm	15 mm	10 mm	10 mm	10 mm
Size	L = 240 mm; D = 23 mm*	L = 213 mm; D = 20mm *	L = 213 mm; D = 20mm *	L = 240 mm; D = 20mm *	L = 510 mm; D = 20mm *	L = 70 mm; D = 10mm
Mass	210 g	220 g	190 g	180 g	190 g	60 g
Cable	no cable	cable 3 m long; separate and not integrated (cable is a separate part)				3 m integrated cable
Max. distance to control unit	10 m					
Nuclide library	¹²⁵ I, ⁵⁷ Co, ^{99m} Tc, ¹⁷⁷ Lu, ¹¹¹ In, ¹³¹ I, PET, DUAL Mode ¹²⁵ I & ^{99m} Tc simultaneous					

*) diameter hand piece | **) The 45°- and 90°-Probes have an elliptical field of view with a long axis parallel to the probe and the short axis perpendicular to the probe

Technical Support

Service specialists offer support:

Monday to Friday: 9:00 AM to 5:00 PM

Phone: +49 (0)30 34 6693 00

Fax: +49 (0)30 34 66 92 99

Email: service@crystal-photonics.com

Sales Headquarter Berlin

Sales specialists help you with solutions and quotations.

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Fax: +49 (0)30 34 66 92 99

Email: sales@crystal-photonics.com

Warranty

Our products have two years warranty from date of delivery. Metrological Tests and product checkups can be ordered.

Spare parts will be available for eight years from the date of purchase.

International Distributors

Our international distributors can help you locally. Please check the latest list at:

crystal-photonics.com/de/international.htm



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