

RaySafe Xi Classic

A complete system for X-ray measurements



 RaySafe™



— a wide range of detectors for different applications

The values of the RaySafe Xi Classic

MODULAR

Whether you start with a base unit and one detector, or a Prestige Kit for all modalities, the RaySafe Xi makes it easy for you to grow your system over time or as your needs change. Additional detectors and options can be added at any time to enhance the capabilities of your system. This makes the RaySafe Xi a smart investment now, and for the future.

PREFERRED

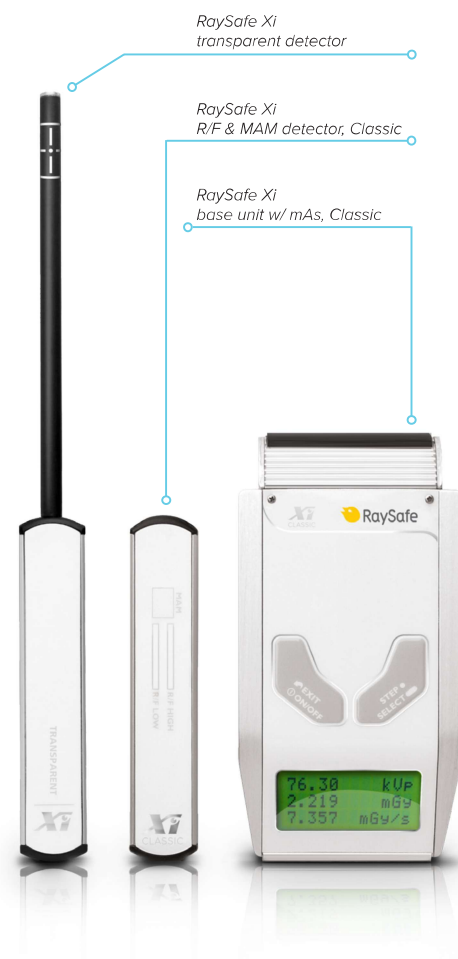
In 2011, the RaySafe Xi became the most widely-used solid state quality assurance tool in the world. Leading manufacturers of X-ray equipment around the world have standardized on the RaySafe Xi from their R&D, to their factory to their field service technicians.

The majority of diagnostic physicists and government inspectors also use the RaySafe Xi in their daily work. This makes any needed measurement comparison between biomedical engineers, physicists, inspectors and field service engineers simple and consistent.

SIMPLE

A good tool should simplify your life, not complicate it. The RaySafe Xi goes from set up to results in under a minute. With its intuitive user interface and two key operation, it is easy to learn and master.

RaySafe Xi view software shows waveforms and easily exports data to Excel for reporting. Because we understand that you want to focus on interpreting the measured data instead of worrying about how to obtain it.





ACCURATE

The RaySafe Xi solid state technology offers many benefits, including durability, a smaller footprint, and enhanced sensitivity. But did you know that our proprietary solution also provides increased accuracy? All RaySafe Xi detectors use multiple sensors and have our “Active Compensation” system. This provides a flat energy dependence, not only for radiography and fluoroscopy but also in the mammography range. It also gives our users the ability to measure multiple parameters all in one instrument including HVL – on the fly.

DURABLE

QA instrumentation needs to withstand life on the road – and its inevitable bumps. The RaySafe Xi is prepared for the most demanding applications. From its durable case with its custom foam insert to hold detectors and accessories, to the robust design of the base unit and solid state detectors, the RaySafe Xi can easily manage the unavoidable drops and mishaps.

AT YOUR SERVICE

Keeping your instrument performing and looking like new is easy with our annual service program and extended warranty. Simply send in your instrument annually for calibration and we will extend the full warranty for another year for up to 5 years. Your annual service includes the most comprehensive calibration in the industry, firmware updates, and free replacement of any damaged or unsightly parts in your instrument and in your case.

Our service customers benefit from a faster turnaround time and an ISO 17025-certified calibration facility using NIST/PTB calibration standards. Because your reputation and the quality of your service depends on a well-calibrated and maintained instrument.

Isn't precision in mammography important?

Mammography examinations play a vital role in early detection and reduction of mortality from breast cancer. Diagnosis is dependent on the quality of the X-ray image, making the precision of quality assurance measurements critical.

There have been rapid improvements in the mammography field over the last few years. Many manufacturers have released new systems with higher sensitivity by utilizing various target/filter combinations and combo modes. Working together with our mammography imaging partners, we have improved both the scope and precision of the RaySafe Xi MAM solution.

Apart from our unique ability to handle common tube ageing effects, the RaySafe Xi MAM detector can directly measure the HVL for each exposure without the need for filters and multiple exposures. Our solution provides the user with traceable calibrations for specific beam qualities such as Mo/Mo, Mo/Rh, W/AI, W/Rh and W/Ag, making the RaySafe Xi the ideal choice for both analogue and digital mammographic machines. It even handles combinations of beam qualities and scanning machines.

We know precision and traceability matters, especially in mammography applications. So we've developed the most comprehensive mammography solution available.



PÁGINA 1

RaySafe Xi Classic

Um sistema completo para medições de Raios X

Uma ampla gama de detectores para diferentes aplicações

(Legendas dos componentes na imagem):

- **Detector transparente RaySafe Xi** (*RaySafe Xi transparent detector*)
- **Detector RaySafe Xi R/F & MAM, Classic** (*RaySafe Xi R/F & MAM detector, Classic*)
- **Unidade base RaySafe Xi com mAs, Classic** (*RaySafe Xi base unit w/ mAs, Classic*)

PÁGINA 2

Os Valores do RaySafe Xi Classic

- **MODULAR**

Quer você comece com uma unidade base e um único detector, ou com um *Kit Prestige* para todas as modalidades, o RaySafe Xi facilita a expansão do seu sistema ao longo do tempo ou conforme suas necessidades mudam. Detectores e opções adicionais podem ser acrescentados a qualquer momento para aprimorar as capacidades do seu equipamento. Isso faz do RaySafe Xi um investimento inteligente para o presente e para o futuro.

- **PREFERIDO**

Em 2011, o RaySafe Xi se tornou a ferramenta de garantia de qualidade (QA) em estado sólido mais utilizada no mundo. Os principais fabricantes de equipamentos de Raios X em todo o mundo padronizaram o uso do RaySafe Xi em seus setores de Pesquisa & Desenvolvimento (P&D), em suas fábricas e com seus técnicos de serviço em campo.

A maioria dos físicos médicos de radiodiagnóstico e inspetores governamentais também utiliza o RaySafe Xi em seu trabalho diário. Isso torna qualquer comparação de medição entre engenheiros biomédicos, físicos, inspetores e engenheiros de campo simples e consistente.

- **SIMPLES**

Uma boa ferramenta deve simplificar sua vida, não complicá-la. O RaySafe Xi vai da configuração aos resultados em menos de um minuto. Com sua interface de usuário intuitiva e operação por apenas duas teclas, é fácil de aprender e dominar.

O software *RaySafe Xi view* exibe formas de onda e exporta dados facilmente para o Excel para elaboração de relatórios. Porque entendemos que você quer focar em interpretar os dados medidos, em vez de se preocupar com a forma de obtê-los.

PÁGINA 3

(Legendas dos componentes na imagem):

- **Detector de TC RaySafe Xi** (*RaySafe Xi CT detector*)
- **Detector de Luz RaySafe Xi** (*RaySafe Xi light detector*)
- **Detector de Levantamento Radiométrico RaySafe Xi** (*RaySafe Xi survey detector*)
- **PRECISO**

A tecnologia em estado sólido do RaySafe Xi oferece muitos benefícios, incluindo durabilidade, dimensões reduzidas e sensibilidade aprimorada. Mas você sabia que nossa solução proprietária também oferece maior precisão? Todos os detectores RaySafe Xi utilizam múltiplos sensores e possuem nosso sistema de "**Compensação Ativa**" (*Active Compensation*). Isso proporciona uma dependência energética plana, não apenas para radiografia e fluoroscopia, mas também na faixa da mamografia. Também dá aos usuários a capacidade de medir múltiplos parâmetros simultaneamente em um único disparo, incluindo a Camada Semirredutora (HVL) em tempo real.

- **DURÁVEL**

A instrumentação de controle de qualidade precisa suportar a rotina de viagens e seus solavancos inevitáveis. O RaySafe Xi está preparado para as aplicações mais exigentes. Desde sua maleta durável com berço em espuma personalizada para acomodar detectores e acessórios, até o design robusto da unidade base e dos detectores em estado sólido, o RaySafe Xi gerencia facilmente quedas e imprevistos inevitáveis.

- **AO SEU DISPOR**

Manter seu instrumento funcionando e com aparência de novo é fácil com nosso programa de serviço anual e garantia estendida. Basta enviar seu equipamento anualmente para calibração que estenderemos a garantia completa por mais um ano, por até 5 anos. Seu serviço anual inclui a calibração mais abrangente da indústria, atualizações de firmware e a substituição gratuita de qualquer peça danificada ou desgastada do seu instrumento ou da sua maleta. Nossos clientes de serviços se beneficiam de prazos de entrega mais rápidos e de um laboratório de calibração certificado ISO 17025 utilizando padrões de calibração rastreáveis ao NIST/PTB. Porque sua reputação e a qualidade do seu serviço dependem de um instrumento bem calibrado e mantido.

PÁGINA 4

A precisão na mamografia não é importante?

Os exames de mamografia desempenham um papel vital na detecção precoce e na redução da mortalidade por câncer de mama. O diagnóstico depende da qualidade da imagem de Raios X, tornando crítica a precisão das medições de garantia de qualidade.

Houve rápidos avanços no campo da mamografia nos últimos anos. Muitos fabricantes lançaram novos sistemas com maior sensibilidade, utilizando várias combinações de alvo/filtro e modos combinados. Trabalhando em conjunto com nossos parceiros de imagem mamográfica, aprimoramos o alcance e a precisão da solução **RaySafe Xi MAM**.

Além de nossa capacidade única de lidar com os efeitos comuns de envelhecimento do tubo, o detector **RaySafe Xi MAM** pode medir diretamente a HVL para cada exposição sem a necessidade de filtros e sem múltiplas exposições. Nossa solução oferece ao usuário calibrações rastreáveis para qualidades de feixe específicas, tais como **Mo/Mo, Mo/Rh, W/Al, W/Rh e W/Ag**, tornando o RaySafe Xi a escolha ideal para mamógrafos analógicos e digitais. Ele lida inclusive com combinações de qualidades de feixe e equipamentos do tipo *scanning*.

Sabemos que a precisão e a rastreabilidade importam, especialmente em aplicações de mamografia. Por isso, desenvolvemos a solução para mamografia mais abrangente disponível no mercado.

RaySafe Xi Classic

Specifications



RAYSAFE Xi GENERAL

EMC TESTED	According to EN 61000-6-1:2007 and EN 61000-6-3:2007
EXPOSURE NEEDED	One
RESET	Automatic
TEMP. RANGE	15 – 35 °C (59 – 95 °F)
DETECTOR CABLE LENGTH	2 and 10 m (6.5 and 33 ft)
SOFTWARE	RaySafe Xi view for recording measured data and waveforms. RaySafe Xi view also exports data to Microsoft Excel.
DATA TRANSFER	RS-232 or Bluetooth
DATA FORMAT	XML
PATENT	Germany DE69430268.6-08, UK 0758522, Japan 3449721, Sweden 9302909-8, France 075822, USA 5761270
PTB APPROVAL	<u>23.04</u> <u>08.02</u>

RAYSAFE Xi BASE UNIT, CLASSIC

SIZE	28 x 74 x 142 mm (1.1 x 2.9 x 5.6 in)
WEIGHT	250 g (9 oz)
POWER OFF	Never, or after 5, 20 or 60 min of inactivity
POWER SOURCE	Rechargeable 7.4 V Li-ion battery
BATTERY TIME	20 – 40 hours (depending on detector and if Bluetooth is used)
READ OUT	Three row alphanumerical backlit display with four digits numerical resolution

RAYSAFE Xi mA/mAs DETECTOR

RANGE mA	0.2 – 2000 mA
UNCERTAINTY mA	1 % or ± 0.02 mA
RANGE mAs	0.05 – 9999 mAs
UNCERTAINTY mAs	1 % or ± 0.02 mAs
MAX LOAD	< 200 mA continuously, 500 mA < 1 s, 1000 mA < 0.5 s
REPRODUCIBILITY	< 0.5 %
OVER VOLTAGE PROTECTION	70 V

EXPOSURE TIME

RANGE	1 ms – 999 s
UNCERTAINTY	0.5 % or 0.2 ms

PULSE

RANGE	1 – 9999 pulses
PEAK TRIG LEVEL	> 8 mA

FRAME RATE

RANGE	1/6 – 120 frames/s
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mAs PER FRAME

RANGE	0.001 – 2000 mAs/frame
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WAVEFORM

BANDWIDTH	1 kHz
MEMORY DEPTH	1200 ms

RAYSAFE Xi R/F DETECTOR, CLASSIC

SIZE	12 x 22 x 117 mm (0.5 x 0.9 x 4.6 in)
WEIGHT	50 g (2 oz)
DOSE (R/F LOW)	
RANGE	10 nGy – 9999 Gy (1 µR – 9999 R)
TRIG LEVEL	200 nGy/s (1.4 mR/min)
UNCERTAINTY	5 % (40 – 150 kVp, HVL: 1.5 – 14 mm Al ⁽¹⁾ , Active Compensation) or ± 10 nGy (1 µR)
DOSE (R/F HIGH)	
RANGE	10 µGy – 9999 Gy (1 mR – 9999 R)
TRIG LEVEL	100 µGy/s (0.7 R/min)
UNCERTAINTY	5 % (40 – 150 kVp, HVL: 1.5 – 14 mm Al ⁽¹⁾ , Active Compensation) or ± 10 µGy (1 mR)
DOSE RATE (R/F LOW)	
RANGE	10 nGy/s – 1 mGy/s (70 µR/min – 7 R/min)
MIN. PEAK TRIG LEVEL	200 nGy/s (1.4 mR/min)
UNCERTAINTY	5 % (40 – 150 kVp, HVL: 1.5 – 14 mm Al ⁽¹⁾ , Active Compensation) or ± 10 nGy/s (70 µR/min)
DOSE RATE (R/F HIGH)	
RANGE	20 µGy/s – 1000 mGy/s ⁽²⁾ (140 mR/min – 7000 R/min)
MIN. PEAK TRIG LEVEL	100 µGy/s (0.7 R/min)
UNCERTAINTY	5 % (40 – 150 kVp, HVL: 1.5 – 14 mm Al ⁽¹⁾ , Active Compensation) or ± 10 µGy/s (70 mR/min)
kV/kVp	
RANGE	35 – 160 kV/kVp (for up to 0.5 mm Cu or equivalent) 60 – 130 kV/kVp (for 0.5 – 1 mm Cu or equivalent)
UNCERTAINTY	2 % (for up to 0.5 mm Cu or equivalent, Active Compensation) 3 % (for 0.5 – 1 mm Cu or equivalent, Active Compensation)

SENSITIVITY (R/F LOW)	0.4 mA, 40 kV, 40 cm (15.7 in), no added filtration
SENSITIVITY (R/F HIGH)	0.8 mA, 70 kV, 50 cm (19.7 in), no added filtration
EXPOSURE TIME	
RANGE	1 ms – 999 s
UNCERTAINTY	0.5 % or 0.2 ms
PULSE	
RANGE	1 – 9999 pulses
PEAK TRIG LEVEL (R/F LOW)	> 3 µGy/s
PEAK TRIG LEVEL (R/F HIGH)	> 1 mGy/s
FRAME RATE	
RANGE	1/6 – 120 frames/s
DOSE PER FRAME	
RANGE	1.0 nGy – 9999 Gy (0.10 µR – 9999 R) per frame
HVL	
RANGE	1.0 – 14.0 mm Al
UNCERTAINTY	10 % (at signal levels above 1/1000 of max dose rate for selected sensor)
TOTAL FILTRATION	
RANGE	1.5 – 35 mm Al (60 – 120 kV)
UNCERTAINTY	10 % or ±0.3 mm Al (at signal levels above 1/1000 of max dose rate for selected sensor)
WAVEFORM	
BANDWIDTH (R/F LOW)	0.1 kHz
BANDWIDTH (R/F HIGH)	2.5 kHz
MEMORY DEPTH	1 200 ms

⁽¹⁾ 45 mm Al added filtration at 145 kVp gives a HVL of ~13 mm Al.

⁽²⁾ 1000 mGy/s up to 70 kVp, 400 mGy/s at 100 kVp, 250 mGy/s at 140 kVp.

RAYSAFE Xi MAM DETECTOR, CLASSIC

SIZE	12 x 22 x 117 mm (0.5 x 0.9 x 4.6 in)
WEIGHT	50 g (2 oz)
DOSE	
BEAM QUALITIES	Basic: Mo/Mo, Mo/Al, Mo/Rh, Rh/Rh, Rh/Al, W/Rh Options: M-Pro: W/Rh, Mo/Rh, W/Ag M-Pro Plus: W/Rh, Mo/Rh, W/Ag, W/Al, Combo Scanning: W/Al
RANGE	5 µGy – 9999 Gy (0.5 mR – 9999 R)
TRIG LEVEL	10 µGy/s (70 mR/min)
UNCERTAINTY	5 % or ± 5 µGy (0.5 mR) (20 – 40 kV: Mo/Mo 22 – 49 kV: Mo/Al, Rh/Rh, Rh/Al 22 – 40 kV: Mo/Rh, W/Rh, W/Ag, 20 – 49 kV: W/Al, Combo 0 – 2.5 mm Al added filtration, Active Compensation Combo: 0-0.1 mm Al added filtration, Active Compensation)
UNCERTAINTY (W/AL SCANNING)	5 % or ± 5 µGy (0.5 mR) (22 – 40 kV, 0.5 mm Al total filtration)
DOSE RATE	
RANGE	10 µGy/s – 100 mGy/s (70 mR/min – 700 R/min)
TRIG LEVEL	10 µGy/s (70 mR/min)
UNCERTAINTY	5 % or ± 5 µGy/s (35 mR/min) (20 – 40 kV: Mo/Mo 22 – 49 kV: Mo/Al, Rh/Rh, Rh/Al 22 – 40 kV: Mo/Rh, W/Rh, W/Ag, 20 – 49 kV: W/Al, Combo 0 – 2.5 mm Al added filtration, Active Compensation Combo: 0–0.1 mm Al added filtration, Active Compensation)
UNCERTAINTY (W/AL SCANNING)	5 % or ± 5 µGy/s (35 mR/min) (22 – 40 kV, 0.5 mm Al total filtration)

kV	
BEAM QUALITIES	Basic: Mo/Mo Options:M-Pro: Mo/Rh, W/Rh M-Pro Plus: Mo/Rh, W/Rh, W/Al Scanning: W/Al
RANGE (MO/MO)	20 – 40 kV
UNCERTAINTY (MO/MO)	2 % or 0.5 kV (no paddle) 2 % or 0.7 kV (paddle) (Active Compensation for inherent Mo filtration of 25 – 35 µm. User selectable paddle compensation.) ⁽³⁾
RANGE (MO/RH)	25 – 40 kV
UNCERTAINTY (MO/RH)	2 % or 0.5 kV (Active Compensation for inherent Rh filtration of 25 – 30 µm.)
RANGE (W/RH)	20 – 40 kV
UNCERTAINTY (W/RH)	2 % or 0.5 kV (no paddle) 2 % or 0.7 kV (paddle) (Active Compensation for inherent Rh filtration of 50 – 60 µm. User selectable paddle compensation.) ⁽³⁾
RANGE (W/AL)	20 – 49 kV (Measuring 40 – 49 kV requires an R/F detector)
UNCERTAINTY (W/AL)	2 % or 0.5 kV (no paddle) 2 % or 0.7 kV (paddle) (Active Compensation for inherent Al filtration of 0.65–0.75 mm. User selectable paddle compensation.) ⁽³⁾
RANGE (W/AL SCANNING)	20 – 40 kV
UNCERTAINTY (W/AL SCANNING)	2 % or 0.7 kV (0.5 mm Al total filtration)
SENSITIVITY	10 mA, 28 kV, 65 cm (25.6 in), no added filtration

⁽³⁾ Definition: Paddle = 0.1 mm Al

Note! Variation in paddle thickness and homogeneity may affect kV results. To achieve the most accurate result, kV measurements without paddle is recommended.

HVL

BEAM QUALITIES	Basic: Mo/Mo, Mo/Al, Mo/Rh, Rh/Rh, Rh/Al, W/Rh Options: M-Pro: W/Rh, Mo/Rh, W/Ag M-Pro Plus: W/Rh, Mo/Rh, W/Ag, W/Al Scanning: W/Al
RANGE	0.2 – 1.2 mm Al, depending on beam quality
UNCERTAINTY	5 % (for up to 2.5 mm Al added filtration to each beam quality)
RANGE (W/AL SCANNING)	0.32 – 0.58 mm Al
UNCERTAINTY (W/AL SCANNING)	5 % (with 0.5 mm Al total filtration)
EXPOSURE TIME	
RANGE	1 ms – 999 s
UNCERTAINTY	0.5 % or 0.2 ms
WAVEFORM	
BANDWIDTH	2.4 kHz
MEMORY DEPTH	1200 ms

RAYSAFE Xi TRANSPARENT DETECTOR

SIZE	200 x 20 x 12 mm (7.9 x 0.8 x 0.5 in)
WEIGHT	40 g (1.5 oz)
DOSE	
RANGE	10 nGy – 9999 Gy (1 µR – 9999 R)
TRIG LEVEL	1 µGy/s (7 mR/min)
UNCERTAINTY	5 % (60 – 150 kVp, HVL: 2 – 10 mm Al ⁽⁴⁾)
DOSE RATE	
RANGE	100 nGy/s – 20 mGy/s (0.7 mR/min – 140 R/min)
MIN. PEAK TRIG LEVEL	1 µGy/s (7 mR/min)
UNCERTAINTY	5 % (60 – 150 kVp, HVL: 2 – 10 mm Al ⁽⁴⁾)
EXPOSURE TIME	
RANGE	1 ms – 999 s
UNCERTAINTY	0.5 % or 0.2 ms
PULSE	
RANGE	1 – 9999 pulses
PEAK TRIG LEVEL	> 3 µGy/s
UNCERTAINTY	1 pulse
FRAME RATE	
RANGE	1/6 – 120 frames/s
DOSE PER FRAME	
RANGE	1.0 nGy – 9999 Gy (0.10 µR – 9999 R) per frame

RAYSAFE Xi CT DETECTOR

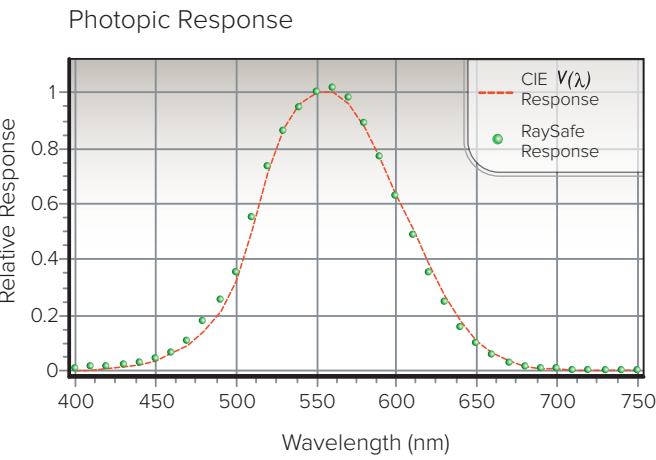
SIZE	200 x 20 x 12 mm (7.9 x 0.8 x 0.5 in)
SIZE Ø	7.5 mm (0.30 in)
SIZE Ø PHANTOM ADAPTER	12.5 mm (0.49 in)
EFFECTIVE LENGTH	100 mm (3.94 in)
WEIGHT	50 g (1.75 oz)
RANGE	10 µGy – 9999 Gy (1 mR – 9999 R) 20 µGy/s – 100 mGy/s (140 mR/min – 680 R/min)
UNCERTAINTY	5 % (at reference point RQT9; 120 kV, 3.7 mm Al and 0.25 mm Cu)
ENERGY DEPENDENCE	< 5 % (at 80 kV to 150 kV; RQA, RQR and RQT qualities)
RADIAL UNIFORMITY	± 2 %
AXIAL UNIFORMITY	± 3 %, within rated length
INFLUENCE OF RELATIVE HUMIDITY	< 0.3 % (for RH < 80 %)
UNCERTAINTY IN TEMP. AND PRESSURE CORRECTION	2 %
PRESSURE RANGE	80.0 – 106.0 kPa
INTERNATIONAL STANDARD	Fulfills requirements in IEC 61674

RaySafe Xi CT detector comes with a phantom adapter to fit a standard head and/or body phantom.

⁽⁴⁾ 13 mm Al added filtration at 145 kVp gives a HVL of ~10 mm Al.

RAYSAFE Xi LIGHT DETECTOR

WEIGHT	170 g (6 oz)
RELATIVE AIR HUMIDITY RANGE	< 80 %
UNCERTAINTY ILLUMINANT A	3 %
DETECTOR MEMORY	30 measurements per sensor
CLASSIFICATION	Class B (according to DIN 5032, part 7)
MAX. DEVIATION FROM THE CIE CURVE FOR THE HUMAN EYE (V(λ))	4 % (see figure Photopic Response)



SIZE

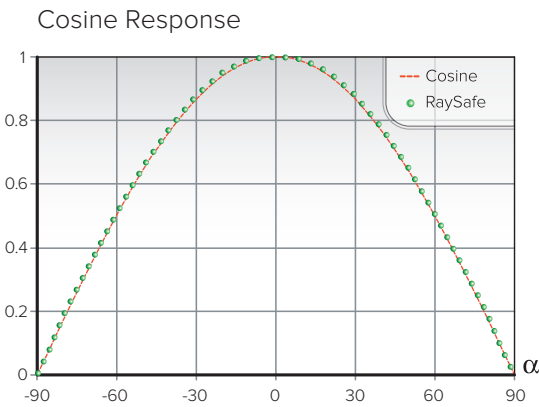
LIGHT DETECTOR	30 x 104 x 21 mm (1.2 x 4.1 x 0.83 in)
LUMINANCE TUBE	Ø = 29 mm (1.1 in) L = 84 mm (3.3 in)
SHADOW RING	Ø = 50 mm (2 in)

LUMINANCE

RANGE (AUTO)	0.05 – 50 000 cd/m²
RESOLUTION	0.01 cd/m²
LUMINANCE DETECTOR OPTICS	Ø 10 mm (0.4 in) measuring field. Contact measurement focusing lens 1:1.

ILLUMINANCE

RANGE (AUTO)	0.05 – 50 000 lux
RESOLUTION	0.01 lux
MAX. DEVIATION FROM COSINE ANGULAR RESPONSE	1.7 % (see figure Cosine Response)

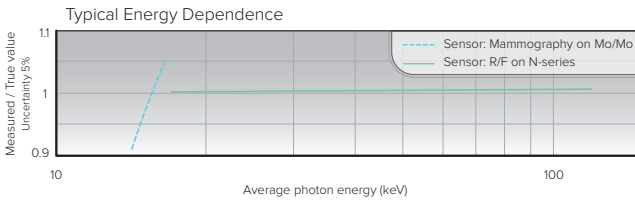


RAYSAFE Xi SURVEY DETECTOR

SIZE	13 x 66 x 175 mm (0.5 x 2.6 x 6.9 in)
DIAMETER	65 mm (2.6 in)
WEIGHT	65 g (2.3 oz)
TRIG	Manual, no threshold
AVERAGE PHOTON ENERGY	13 keV – 1.25 MeV
MINIMUM RESPONSE TIME	0.5 s
SOUND TICKER FREQUENCY	0.5 – 2000 Hz
INTERNATIONAL STANDARD	Fulfills requirements in IEC 60601-1-3
MAX. RESOLUTION	0.001 µSv

DOSE

RANGE	0 µSv – 9999 Sv (0 µGy – 9999 Gy) (0 nR – 9999 R)
UNCERTAINTY (MAMMOGRAPHY)	10 % (< 25 keV)



UNCERTAINTY (R/F)	10 % (25 – 120 keV)
UNCERTAINTY (NUCLEAR MED.)	20 % (> 120 keV)
DOSE RATE	
RANGE	0 µSv/h – 0.15 Sv/h (0 µGy/h – 0.1 Gy/h) (0 nR/h – 11 R/h)
UNCERTAINTY (MAMMOGRAPHY)	10 % or 0,3 µSv/h (> 1 µSv/h, < 25 keV)
UNCERTAINTY (R/F)	10 % or 0,3 µSv/h (> 1 µSv/h, 25 – 120 keV)
UNCERTAINTY (NUCLEAR MED.)	20 % or 0,3 µSv/h (> 1 µSv/h > 120 keV)

RAYSAFE Xi VIEW

COMPATIBLE WITH	Windows 10, Windows 8, Windows 8.1, Windows 7, Windows Vista, Windows XP, Windows 2000
FILE FORMAT	XML
COMMUNICATION	RS-232 (115200/8-N-1) or Bluetooth
BLUETOOTH	
CONNECTOR	9-pin D-SUB, pre-configured for communication with Xi View
OPERATING DISTANCE	100 m nominal (actual performance depends on environment and receiving Bluetooth module)

RAYSAFE UNCERTAINTY DEFINITION

The expanded uncertainty is stated as the combined uncertainty of measurement multiplied by the coverage factor $k=2$, which assuming a normal distribution has a coverage probability of 95 % (complies with GUM by ISO (1995, ISBN 92-67-10188-9)).

Instrument specifications are subject to purchased configuration.
All specifications may change without notice.