RaySafe ThinX

An easy tool for fast results

RaySafe™

RaySafe ThinX

The RaySafe ThinX has been designed to meet the need for a basic multi-parameter instrument for simultaneous measurement of dose, dose rate, kVp, HVL, time and pulses. All parameters can be continually viewed in the convenient LCD display.

AN EASY-TO-USE INSTRUMENT

The RaySafe ThinX is an easy-to-use instrument thanks to its fully automatic user interface. There is no need to adjust settings, set-up or range selection, as the RaySafe ThinX works all automatically. As soon as radiation is detected the instrument switches itself on by using the automatic on/off function.

With a long battery lifetime of more than 1 year, no maintenance is needed.

ACTIVE COMPENSATION

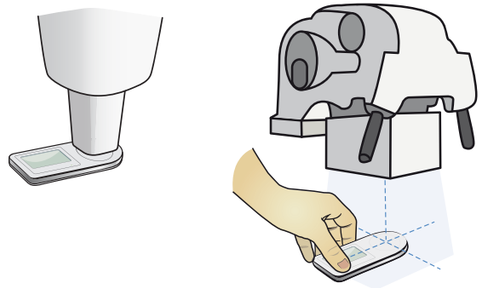
Thanks to the RaySafe Active Compensation technology, no further corrections are required regarding variations in beam filtration to both kVp and dose measurements.

Multiple sensors and advanced calculations automatically determine the beam quality, thereby eliminating the need for further corrections of measured kVp and dose values. The solid state sensor technology enables maximum accuracy whilst making measurements as effortless as possible.

HOW IT WORKS

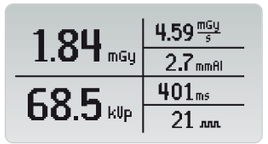
Simply position the meter under the X-ray beam and make an exposure. The display shows all measured values.

1. POSITION INTRA / POSITION RAD



2. EXPOSE

3. READ OUT



SPECIFICATIONS

EMC TESTED	According to EN 61000-6-1:2007 and EN 61000-6-3:2007
EXPOSURE NEEDED	One
POWER ON	Auto, radiation triggered
POWER OFF	Automatic after 2.5 min of inactivity
RESET	Automatic
BATTERY	3V, CR 2450
BATTERY LIFE	2 years of typical use
READ OUT	128 x 64 pixel LCD
TRIG LEVEL	0.1 Gy/s (0.7 R/min)
SIZE (H x W x L)	13 x 45 x 108 mm (0.5 x 1.8 x 4.3 in)
WEIGHT	< 70 g (2.5 oz)

kVp

RANGE (RAD)	45 – 150 kVp
RANGE (INTRA)	45 – 100 kVp
RESOLUTION	0.5 kVp
UNCERTAINTY	3%

DOSE

RANGE	20 µGy – 999 mGy at >70 kV (2.3 mR–114 R) Minimum dose at 50 kV is 100 µGy (11.4 mR)
RESOLUTION	1 µGy (0.1 mR)
UNCERTAINTY	5%

MODEL	PARAMETERS
RaySafe ThinX Intra	Dose, rate, kVp, HVL, time, pulses
RaySafe ThinX RAD	Dose, rate, kVp, HVL, time, pulses
RaySafe ThinX RAD kVp	kVp, time, pulses
RaySafe ThinX RAD Dose	Dose, rate, HVL, time, pulses

DOSE RATE

RANGE	0.1 mGy/s – 100 mGy/s at >70 kV (0.7 R/min–685 R/min) Minimum dose rate at 50 kV is 0.5 mGy/s (3.4 R/min)
RESOLUTION	0.01 mGy/s (0.1 R/min)
UNCERTAINTY	5%

HVL

RANGE	1.0 – 10.0 mm Al
RESOLUTION	0.1 mm Al
UNCERTAINTY	10% or 0.2 mm Al

EXPOSURE TIME

RANGE	10 ms – 10 s
UNCERTAINTY	0.5%
RESOLUTION	1 ms
BANDWIDTH	0.5 kHz

PULSES [1]

PULSES	3–999 pulses, max 375 ms dead time between pulses.
UNCERTAINTY	1 pulse

ACTIVE COMPENSATION

RANGE (RAD)	1.5 mm Al – 0.5 mm Cu total filtration 45-125 kVp 2.5 – 10 mm Al total filtration 125-150 kVp
RANGE (INTRA)	1.5 – 10 mm Al total filtration 45-100 kVp

[1] If the X-ray generator waveform is pulsed the instrument will also automatically display pulses.

Unfors Instruments has changed its name to Unfors RaySafe
www.raysafe.com

RaySafe™