

# RadEye SX

Survey Meter for External Scintillation Probes



The **RadEye SX** is a modern compact multi-purpose survey meter for external scintillator counter tubes. General count rate and surface contamination measurements can be performed as well as dose rate measurements.

As part of the growing RadEye product family of high-end stand-alone meters, the RadEye SX is designed to exceed the most demanding user expectations.

Due to the clear and large display all essential functions and software parameters can be easily accessed. The display and the alarm-LED can be seen while the instrument is worn in the transparent case.

All settings and the data analysis can be done by an optional Windows™-based

PC-software and a reader device. The last 1500 mean and maximum values of the count rate or dose rate are recorded internally and can be read out via a serial interface. Additionally the RadEye GX logs the last 250 alarms, error messages and changes of the configuration.

**Operation modes:**

- Scaler / Timer with preset count and preset time for sample measurements
- Continuous ratemeter mode for frisker operation
- Simultaneous  $\alpha$  /  $\beta$  and gross / ROI operation (distinct audible indication for each measuring channel)

**FEATURES**

- The RadEye SX can operate with dual phosphor  $\alpha$  /  $\beta$ , NaI(Tl) and plastic probes
- Up to 16 different probe configurations are selectable in a submenu
- Easy to replace probes in-the-field, with a simple button-push
- Weighs only 160 g (5.6 oz) with rubber protection, without cable, 110 x 67 x 62 mm (4.3" x 2.6" x 2.4")
- Traditional probes can be used for one and two hand operation
- Versatile operation modes



RadEye BTcom cover for Bluetooth® communication

## OPTIONS AND SPECIFICATIONS

### RADEYE SX SPECIFICATIONS

Measured quantities	Count rate (cps, cpm), surface contamination (Bq, dps, dpm, Bq/cm <sup>2</sup> ), dose rate (R/h, Sv/h, rem/h).
Background subtraction	In count rate and contamination mode.
Measuring range	Default: 100,000 cps - extendable by individual probe calibration.
Probe cables	RG 58, max. 1.5 m (59") – MHV connector.
High voltage range	100 V...1400 V with output impedance 2 MΩ.
Probe library	16 different detectors with corresponding high voltage, calibration factor, dead time correction, overload threshold, detector area and timeout for detector failure.
Alarm threshold	Two alarm thresholds for count rate, activity, dose and dose rate each.
Audible alarm intensity	80 dB at a distance of 30 cm (11.8").
Working temperature	-20°C ... + 50°C (-4°F ... 122°F).
Relative humidity	10 ... 90 % at 35°C (95°F) not condensing.
Operating voltage	1,8 ... 4 V, battery low voltage starting from 2.3 V.
Scaler/Timer	Preset count, preset time.
EMC	Disturbance emission: EN 61000-6-3, Immunity: EN 61000-6-2.
Size	110 mm x 67 mm x 62 mm (4.3" x 2.6" x 2.4"), with rubber protection, without cable.
Weight	Around 160 g (5.6 oz) including AAA cells and protection sleeve.
Internal memory	The last 1500 measured values are saved and can be read out via PC program. Max and mean value of count rate and dose rate. The time interval is factory preset to 120 s by default. As well scaler measurements and momentaneous readings can be stored manually. Logbook with 250 entries for changes of configuration, occurring alarms and errors.
Averaging filters	Ratemeter filter type: Advanced Digital Filter (ADF), Digital RC-Filter with time constant, 1s...180 s, depending on count rate and count rate change.
Battery life time	Depends on external detector (required high voltage and dynode chain impedance), > 500 h for instrument alone.

### RADEYE SX ACCESSORIES

Transparent case with lanyard # 425067044		The RadEye BTcom cover with manual and RadEye.exe update installation file # 425067087	
RadEye SX adapter for DP6 probe # 425069360		Holder with vacuum cup and goose neck # 425522005	
Probe cables MHV to MHV and MHV to PET, various lengths available		Right-angle-plug converter # KT 162245107	
Battery lid # 425067034 for inductive chargers		Desktop holder and inductive charger # 425067083	

