RadEye PRD/PRD-ER

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Features

- High quality PMT for excellent response from 30 keV
- EMI immunity much better than photodiode instruments
- NaI(Tl)-Detector for high response to SNM and RDD´s
- True dose and dose rate calculation avoids significant overestimation of low gamma energies
- Automatic background update, (i.e., no user action necessary)
- NBR allows very low alarm levels for artificial radioactivity
- Designed to meet ANSI 42.33/1, 42.32 and IEC 62401
- Energy response behavior in Roentgen

RadEye PRD

The "orphan source" phenomena is a serious global problem as sources showing up unexpectedly in scrap yards, border crossings or numerous other public locations are a significant potential threat. The RadEye PRD represents a high-performance measuring device for anyone responsible for finding radiation sources whether they be first preventers (border guards, customs officers) or first responders (emergency services and law enforcement).

The RadEye PRD is 5,000 - 100,000 times more sensitive than a typical electronic dosimeter.

When looking for lost or hidden radiation sources or contaminated materials, it is paramount to use a tool with high sensitivity and high selectivity.

The RadEye PRD achieves this through a special technique based on our patented Natural Background Rejection (NBR) technology. It is the only instrument of its type and size to achieve this.

The RadEye PRD incorporates a high sensitivity NaI(Tl) scintillation detector with a miniature photo-multiplier allowing the detection of very low radiation levels with particular emphasis on gamma emissions below 400 keV. Thus, in case of a nuclear accident, the RadEye PRD is ideal for sensitive I-131 detection and measurement.

Detector	NaI(Tl)-detector with high quality micro photomultiplier; software switch for R or Sv energy response and calibration
Measuring range	PRD: 1 µR/h - 25 mR/h [0.01 µSv/h – 250 µSv/h] PRD-ER: 1 µrem/h - 10 rem/h [0.01 µSv/h – 100 mSv/h]
Overrange indication	PRD: Tested up to 1,000 R/h [10 Sv/h] PRD-ER: Tested up to 10,000 rem/h [100 Sv/h]
Energy range (+/- 30 %)	60 keV - 1.3 MeV, excellent detection from 30 keV
Response for Cs-137 (662 keV)	1.5 cps per µR/h [150 cps per µSv/h]
Response for Am-241 (60 keV)	30 cps per µR/h [2000 cps per µSv/h]
Linearity error (Cs-137)	PRD: max. ± 10 % PRD-ER: max. ± 20 %
Enhanced alarming sensitivity by NBR	Yes, down to 1 µR/h [0.01 µSv/h] at low gamma energies
Cosmic radiation background	Suppression typically > 95 %

RadEye PRD #4250671
Factory calibrated in exposure rate R/h

RadEye PRD #425067120
Factory calibrated in H*(10) µSv/h