

# RadEye PRD-ER



Special proprietary circuitry allows the energy compensated dose and dose rate measurement up to 100 mSv/h (or 10 rem/h). Thus the RadEye PRD-ER is the ideal tool for both interdiction and response.

Unlike instruments using 2 different detectors for the low dose rate range and the high dose rate range, the single detector arrangement in the RadEye PRD-ER offers the following unique advantages over the whole measuring range:

- Consistent angular dependence
- No mutual shielding of neighbored detectors
- Consistent energy response
- No transition range with annoying hysteresis effects
- No high activity source for function test of high dose rate detector required

Gamma Source Detection	★★★
Wide Measuring Range	★★★
Gamma Dose Rate	★★
X-Ray Detection	★★
Neutron Source Detection	(★)

With the help of the RadEye PRD-ER test adapter user can check the full detector performance on a regular basis – without the need of a high dose rate calibration facility.

## Lutetium Test Adapter for PRD and PRD-ER

To “challenge” the radiation detector’s functionality of the RadEye PRD and RadEye PRD-ER, Thermo Fisher Scientific has developed an innovative test adapter based on high purity natural Lutetium-Oxide.



Test adapter kit for RadEye PRD, RadEye PRD-ER, including carrying case and HV-adjustment software.

Gamma test adapter containing 36 g  $\text{Lu}_2\text{O}_3$  for RadEye PRD and RadEye PRD-ER.  
Net count rate approximately 100 cps.  
# 425067071

The design of a special shape enclosure and the use of high density  $\text{Lu}_2\text{O}_3$  ceramics minimizes the required activity for the RadEye PRD and RadEye PRD-ER.

## Technical data of RadEye PRD-ER (deviating from RadEye PRD specifications)

Measuring Range	1 $\mu\text{rem/h}$ - 10 rem/h (0.01 $\mu\text{Sv/h}$ – 100 mSv/h)
Overrange Indication	10,000 rem/h (100 Sv/h)
Linearity error (Cs-137)	max. $\pm 20\%$