

# RAP Scintillation Probes

The CsI (TI) crystal used in Radiation Alert® Probes has a higher atomic number, is more rugged, and less hygroscopic than a typical NaI detector. The improved gamma ray absorption allows a thinner crystal to be used, effectively reducing the background count rate.

## Specifications

### RAP47:

Thin-crystal (1 mm) optimizes sensitivity to low energy gamma radiation while minimizing sensitivity to higher energies. An excellent detector for Iodine-125 and suitable for thyroid uptake measurements.

### RAP200:

A 0.25-inch crystal optimizes this for the detection of special nuclear material (SNM) such as U-235, or related isotopes such as Am-241, much like a mini-FIDLER.

### RAP640:

Superior to a 1 x 1-inch NaI detector, this is a great choice for an all-around gamma and x-ray detector. Optimal energy range of about 20 keV to 2 MeV. Highest efficiency for a broad spectrum of gamma-emitting isotopes.



# SE. INTERNATIONAL INC



P.O. Box 39, 436 Farm Rd. Summertown, TN 38483  
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# RADIATION<sup>®</sup> A • L • E • R • T

# RAP Scintillation Probes

## Specifications

Detector: Type-CsI (TI) crystal (Cesium Iodide Thallium)

## Crystal Dimensions

### RAP47

25.4 mm (1 inch) diameter. x 1.0 mm (.04 inch) thick

### RAP200

25.4 mm (1 inch) x 6.35 mm (.25 inch)

### RAP640

25.4 mm (1 inch) x 25.4 mm (1 inch)

## Radiation Detected

### RAP47

gamma, 8 keV to 1 MeV. Typical absorption 100% at 47 keV, 80% at 100 keV

### RAP200

gamma, 8 keV to 1 MeV. Typical absorption 97% at 100 keV, 77% at 185 keV

### RAP640

gamma, 8 keV to 3 MeV. Typical absorption 70% at 600 keV, 50% at 840 keV

## Temperature Range

-25° to 40°C (-4° to 104°F)

## Humidity Range

0 to 90% Relative Humidity.

## Operating Voltage

600-1100 volts.

## Probe Construction

Anodized aluminum housing. Approximate size: length 7-7.5 inches, diameter 1.5 inches. Connectors-Standard MHV. Cable (Optional)-Straight RG59/u, length 3.5 feet.

## Weight

RAP47

Approx. 178 g (6.3 oz.) without cable

RAP200

Approx. 240 g (8.5 oz.) without cable

RAP640

Approx. 290 g (10.25 oz.) without cable

## Limited Warranty

One year limited.

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