

# RADIOACTIVE SOURCES

***Model 2000A is a general purpose lab source whose compact design makes it an ideal choice for applications that require the passive dispersion of radon gas***

The Model 2000A is well suited to provide radon gas for radon measurement instrumentation, environmental chambers, radon enclosures and other closed systems.

The 2000A is a passive radon gas source that provides calibrated quantities of radon gas which disperses in a passive manner through the radon enclosure. This radon source is available in various activities.

## **Applications:**

- For continuous or intermittent applications in environmental chambers, radon enclosures and other types of confined systems
- It is ideally suited both as a convenient general purpose laboratory source of radon gas and as a radon gas standard for the calibration of radon measuring instrumentation

## **Features:**

- Portable
- Lightweight
- Leakage proof (dry radium)
- Safe container
- May be sealed with the provided cap when not in use
- Convenient and easy to use
- Passive diffusion



**2000A**

## **Theory of Operation:**

The model 2000A source is calibrated and supplied with a removable cap, which is used to seal the container. The radium source material is securely and permanently confined while allowing, at the same time, radon gas to completely disperse when the cap is removed. The radium source material inside the container then continues to emanate radon gas at a constant rate. The concentration of radon gas inside the enclosure follows the standard growth and decay equations for radon with a decay constant of 0.0001258 per minute.



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## Specifications:

Parent nuclide:	Ra-226
Nominal activity:	Customer Specified. < 500 kBq (13.5 uCi)
Activity Tolerance:	-10 / +25 %
Calibration Accuracy <sup>1</sup> :	± 4 %
Housing Material:	Aluminum
Operating Temperature Range:	0 to +50 °C (+32 to +122 °F)
Storage Temperature Range:	-20 to +75 °C (-4 to +167 °F)
Relative Humidity Range <sup>2</sup> :	0 to 90 %
Diameter:	4.4 cm (1.8 in.)
Height:	9.2 cm (3.6 in.)
Weight:	286 g (0.63 lb.)

<sup>1</sup> At a 1  $\sigma$  Confidence Level.

<sup>2</sup> Non Condensing

• Values are nominal.

## Ordering Information:

<i>Model</i>	<i>Part Number</i>	<i>Description</i>
2000A-Custom	6203670	Passive radon gas (Rn-222) source

THESE SOURCES CONTAIN RADIOACTIVE MATERIALS. PYLON REQUIRES A COPY OF THE USER'S RADIOISOTOPE LICENCE PRIOR TO SHIPPING THESE PRODUCTS.

Specifications subject to change without notice.

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