

RADIOACTIVE SOURCES

Model RGS Gamma Source is a sealed source containing a calibrated quantity of Radium uniformly absorbed on activated charcoal

The Pylon Gamma Sources offer a series of well-defined energy peaks ranging from 239 keV to 1,764 keV. The RGS Gamma sources are offered in the same 3 " and 4 " sizes as the activated charcoal cartridges commonly used for air sampling.

The models RGS-1-70 and RGS-3-100 are Gamma sources used for the calibration and alignment of gamma spectroscopy systems for a wide range of radionuclide measurements including radio-iodine, radioactive xenon and krypton.

Applications:

- Used as a check source for radon monitors
- Uranium tailing studies
- Health physics
- Radiation safety laboratories
- Medical laboratories

Features:

- Charcoal cartridge configuration
- Sealed and safe container
- Stable and accurate



RGS-1-70

Theory of Operation:

The RGS is a permanently sealed canister containing a precise amount of radium (Ra-226). The radium is held in a small holder and surrounded by a specific amount of activated charcoal. Because the charcoal does not completely fill the container, a stainless steel mesh screen that is held in place by a retaining ring is used to hold the charcoal in place. The radium is in a form that emanates 100 % of the radon gas produced and because of the specific quantities of activated charcoal, the radon gas progeny are in equilibrium with the radium and are uniformly distributed throughout the canister.

RGS

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Specifications:

	<u>RGS-1-70</u>	<u>RGS-3-100</u>	
Parent nuclide:	Ra-226	Ra-226	
Nominal activity:	0.027 (1)	0.081 (3)	uCi (kBq)
Activity Tolerance:	-10 / +25	-10 / +25	%
Calibration accuracy:	± 4	± 4	% At a 1 σ Confidence Level.
Housing Material:	Steel	Steel	
Canister Size:	7.6 (3)	10.2 (4)	cm (in.)
Charcoal type:	P.C.B.	P.C.B.	
Wall thickness:	0.025 (0.01)	0.025 (0.01)	cm (in.)
Operating Temperature Range:	0 to +50 (+32 to +122)	0 to +50 (+32 to +122)	°C (°F)
Storage Temperature Range:	-20 to +75 (-4 to +167)	-20 to +75 (-4 to +167)	°C (°F)
Relative Humidity Range:	0 to 90	0 to 90	%
Diameter:	7.6 (3)	10.2 (4)	cm (in.)
Height:	2.5 (1)	3.2 (1.25)	cm (in.)
Weight:	61 (0.13)	161 (0.35)	g (lb.)

- Values are nominal.

Ordering Information:

<i>Model</i>	<i>Part Number</i>	<i>Description</i>
RGS-1-70	A207570	Radon gamma source 3" diameter (1.0 kBq)
RGS-3-100	A206580	Radon gamma source 4" diameter (3.0 kBq)

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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