

PYLON AB7

Check Source

The reliable, versatile, and user-friendly solution for a wide variety of radiation monitoring applications.



We understand that reliable radon detection is not a luxury - it is an absolute necessity.

The Check Source is a radon reference source that is used on our next generation laboratory-grade instrument, the Pylon AB7 and AB6A Portable Radiation Monitors, for the setup and verification of the operation of the AB7 and AB6A for measurement.

Every bit as reliable as our previous check sources, it has been designed to match the specifications of the AB-5 check source to maintain compatibility.

Backed by over 30 years of radon and thoron detection and measurement expertise, superior engineering, and world-class customer service, the Pylon AB7 and check source provide radon measurement verification you can depend on.

Key Features

Accurate	Same geometry as 600A & 600P detector cells to provide similar counting characteristics on the radon monitor	Radiation Immunity	Immune to beta and gamma radiation
Ease of Use	Attaches to the monitor PMT mount in the same manner as detectors	Stable	Insensitive to temperature and humidity changes
		Safe	Radioactive material is sealed inside unit

Applications

When combined with the Pylon AB7 or AB6A radiation monitors, the check source can be used for:

- AB7/AB6A monitor operating point setup
- AB7/AB6A monitor efficiency verification
- AB7/AB6A monitor counting operation verification





The unit comprises a radium source (Ra-226) sealed within high efficiency scintillation cell. This generates radon (Rn-222) and daughter gases which generate alpha particles. Efficiency is $74.5 \pm 2\%$ when used with the Pylon AB7 or AB6A. It reproduces the counting characteristics of a typical gas sample in an AB7 or AB6A 600A or 600P detector cell such as the plateau shape and count rate, thus permitting accurate instrument alignment and calibration. A calibration certificate is supplied stating the total alpha activity and is accurate to $\pm 4\%$. No radioactive material leaves the 6000 check source.

Technical Specifications

GENERAL

Source Nuclide:	Ra-226
Source Nuclide Activity:	18.5 Bq (500 pCi)
Alpha activity:	52 Bq (1419 pCi) 3150 dpm
Loaded Activity Tolerance:	-10 / +25 % ¹
Calibration Accuracy:	$\pm 4\%$ ^{2,3}
Scintillator:	ZnS(Ag)
Primary Construction Material:	Aluminum

ENVIRONMENTAL

Operating Temperature Range:	-20 to +40 °C (-4 to +104 °F)
Storage Temperature Range:	-20 to +50 °C (-4 to +122 °F)
Relative Humidity Range:	0 to 90 % (Non-Condensing)

DIMENSIONS

Diameter:	6.1 cm (2.4 in.)
Height:	15.5 cm (6.1 in.)
Weight:	226 g (0.5 lb.)

¹ Loaded activity tolerance: -10 to +25% of nominal value. E.g., If 3150 dpm is the specified nominal activity, the actual loaded activity will be between 2835 dpm and 3937.5 dpm.

² Calibration accuracy of the loaded activity. E.g., If the nominal activity is 3150 but the loaded activity is 3500 dpm, the calibration accuracy is 3500 dpm \pm 140 dpm.

³ At a 1 σ Confidence Level.

Ordering Information:

Model 6000 Source: Order part number 7100210.

Values are nominal and based on new units. Specifications subject to change without notice. Trademarks are the properties of their respective holders. All Rights Reserved.

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