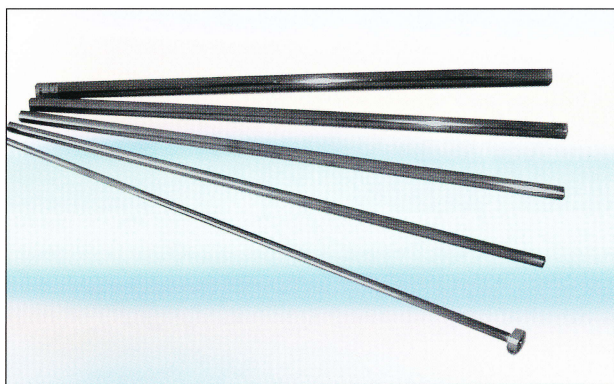


PET Sensitivity Phantom acc NEMA NU2-2001



Sensitivity tube phantom with line source tube for quality control of positron emission tomographs (PET scanners)

Features

- ▶ Enables users to measure sensitivity on PET scanners
- ▶ Consists of five metal sleeves with different diameters and a line source tube
- ▶ Complies with Section 5 of NEMA standard NU2-2001

The purpose of the test procedure based on the PET sensitivity phantom is to measure the sensitivity or ability of positron emission tomographs to detect positrons. The phantom used for this purpose is a set of five metal tubes of 700 mm length and 2.5 mm wall thickness each. The outside diameters are 9.5 mm, 12.7 mm, 15.9 mm, 19.1 mm and 22.2 mm. A plastic tube homogeneously filled with ^{18}F liquid is inserted for the measurement. This line source has an outside diameter of approx. 5 mm and a length of approx. 800 mm. Successive measurements are made by accumulating the sleeve wall thickness with the uniform line source surrounded by known absorbers. From these measurements, the sensitivity without absorbers can be extrapolated to arrive at an attenuation free measurement. The measurement setup, data collection and analysis are described in section 5 of the NEMA standard NU2-2001.

Ordering Information

L991205 PET Sensitivity phantom acc NEMA NU2-2001,
Section 5