

# Pro-NM PETsensi

08-801



The PET sensitivity phantom is used 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 with a similar wall thickness. A plastic tube homogeneously filled with  $^{18}\text{F}$  liquid is inserted for the measurement. 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 NU 2-2007.

## Technical data (can be modified to customer specifications):

- five internally stacked concentric aluminium tubes – all 700 mm in length.
- 1st Tube
  - inside diameter: 3.9 mm
  - outside diameter: 6.4 mm
- 2nd Tube
  - inside diameter: 7.0 mm
  - outside diameter: 9.5 mm
- 3rd Tube
  - inside diameter: 10.2 mm
  - outside diameter: 12.7 mm
- 4th Tube
  - inside diameter: 13.4 mm
  - outside diameter: 15.9 mm
- 5th Tube
  - inside diameter: 16.6 mm
  - outside diameter: 19.1 mm
- 6th Innermost Tube (a fillable polyethylene tube)
  - inside diameter: 1 mm
  - outside diameter: 3.2 mm

## Product features:

- Complies with:
  - NEMA Standard (NU 2-2007)
- the Manual provides detailed guidelines for carrying out each test, results assessment and registration