

Rigid Stem Ionization Chambers



Thimble chambers for measuring high-energy photon and electron radiation in air and in phantom material

Features

- ▶ Vented sensitive volumes of 0.3 cm³ and 1 cm³
- ▶ Suitable as reference chambers for use in solid phantoms
- ▶ Very flat energy response within a wide range

The rigid stem chambers are designed as reference chambers for absolute dosimetry to be used in radiation therapy or by secondary standard dosimetry laboratories (SSDL). They have very small variations of response with radiation quality from low X-ray energies up to high-energy photon and electron radiation. The nominal useful energy range is from 30 kV to 50 MV photons and 6 MeV to 50 MeV electrons. Both chambers are shaped cylindrically (thimble chambers). The wall material is graphite with a protective acrylic cover. The electrodes are made of graphite-coated aluminum. The guard rings are designed up to the measuring volume. Both chambers are constructed with a long stem of approx. 25 cm length for easy mounting in the radiation beam.

An acrylic build-up cap for in-air measurement in ⁶⁰Co beams is included with each chamber, as well as a calibration certificate for calibration in absorbed dose to water or in air kerma. Air density correction is required for each measurement. A radioactive check device is available as an option.

Ordering Information

Rigid stem chambers, connecting system BNT, TNC or M:

30016 Rigid stem chamber 0.3 cm³

30015 Rigid stem chamber 1 cm³

- ▶ Therapy Dosemeters *page 13f.*
- ▶ Radioactive Check Devices *page 23*
- ▶ Calibration Service *page 150*