

Semiflex Ionization Chambers



Waterproof thimble chambers for measuring high-energy photon and electron radiation in air, water and phantom material

Features

- ▶ Vented sensitive volumes of 0.125 cm^3 and 0.3 cm^3
- ▶ Suitable for use in water phantoms
- ▶ Flat energy response within a wide energy range

The semiflex chambers are designed for therapy dosimetry, mainly for dose distribution measurements in motorized water phantoms. They have a short stem for mounting and a flexible connection cable. The nominal useful energy range is from 30 kV to 50 MV photons and 6 MeV to 50 MeV electrons. The wall material is graphite with a protective acrylic cover. The guard rings are designed up to the measuring volume. An acrylic build-up cap for in-air measurement in ^{60}Co 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, and a radioactive check device is available as an option. Both chambers are shaped cylindrically with an inner diameter of 5.5 mm; they differ only in the length of the measuring volume. The 0.125 cm^3 chamber is ideal for 3D dosimetry in a water phantom, since the measuring volume is approximately spherical resulting in a flat angular response over an angle of $\pm 160^\circ$ and a uniform spatial resolution along all three axes of a water phantom.

Ordering Information

Semiflex chambers, connecting system BNT, TNC or M:

31010 Semiflex chamber 0.125 cm^3

31013 Semiflex chamber 0.3 cm^3

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