

Cylinder Stem Ionization Chamber



Cylindrical PMMA ionization chamber with a long rigid stem for radiation protection measurement

Features

- ▶ Vented sensitive volume of 30 cm³
- ▶ Suitable as high precision reference chamber for radiation protection dosimetry
- ▶ Very flat energy response within a wide range

The cylinder stem chamber is designed as a reference chamber for absolute dosimetry to be used by secondary standard dosimetry laboratories (SSDL) and users with high quality requirements. It has very small variations of response with radiation quality from low X-ray energies up to high-energy photon radiation. The nominal useful energy range is 30 keV up to ⁶⁰Co radiation. The cylindrical sensitive volume has a diameter of 31 mm and a length of 51 mm. The wall material is graphite with a protective acrylic cover. The electrode is made of graphite-coated aluminum. The guard ring is designed up to the measuring volume. The chamber is constructed with a long rigid stem of approx. 20 cm length for easy mounting in the radiation beam.

An acrylic build-up cap with 3 mm wall thickness for in-air measurement in ⁶⁰Co beams is included with each chamber, as well as a calibration certificate. Air density correction is required for each measurement. A radioactive check device and an appropriate holding device are available.

Ordering Information

TN23361 Cylinder stem chamber 30 cm³, BNT connector
TW23361 Cylinder stem chamber 30 cm³, TNC connector
TM23361 Cylinder stem chamber 30 cm³, M connector

Option

T23237 Radioactive check source holding device

- ▶ UNIDOS Dosemeters *pages 13 and 138*
- ▶ Radioactive Check Device *page 23*