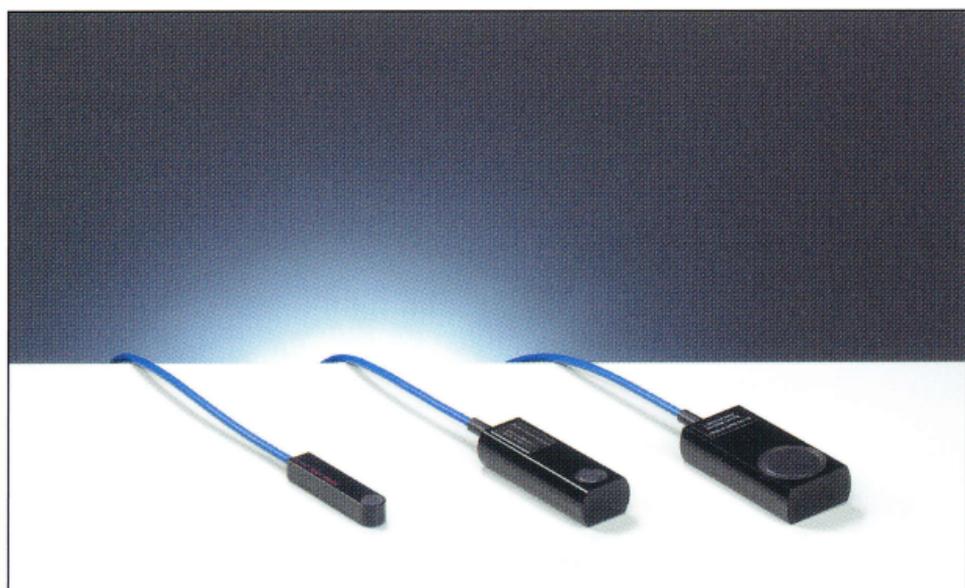


Soft X-Ray Ionization Chambers



Plane parallel chambers with thin membranes for measuring therapeutic X-rays in air and solid state phantoms

Features

- ▶ Vented sensitive volumes of 0.0053 cm³, 0.02 cm³ and 0.20 cm³
- ▶ Very thin flat entrance windows for dose measurements of low energy X-ray beams
- ▶ Suitable for use in air and in solid state phantoms

The 0.02 cm³ soft X-ray chamber type 23342 is the standard ionization chamber for dose measurements in superficial radiation therapy. The 0.20 cm³ chamber type 23344 with its bigger sensitive volume is used for similar purposes, where a higher response is required. The usual calibration of both chambers is done at 15 kV to 70 kV. The chambers have a very flat energy response in the range from 10 kV to 100 kV.

The 0.0053 cm³ soft X-ray chamber type 34013 has an extremely small sensitive volume and makes it possible to measure therapeutic X-ray beams with very small field sizes or with steep fluence gradients. The calibration is typically done at 15 to 50 kV. The energy response within this range is $\pm 2\%$.

The membrane material is polyethylene of 0.03 mm thickness. The guard ring borders the measuring volume. A calibration certificate is included. Air density correction is required for each measurement. A radioactive check device is available as an option.

Ordering Information

Soft X-ray chambers, connecting system BNT, TNC or M:

- 34013 Soft X-ray chamber 0.0053 cm³
- 23342 Soft X-ray chamber 0.02 cm³
- 23344 Soft X-ray chamber 0.20 cm³

- ▶ Therapy Dosemeters *page 13f.*
- ▶ Radioactive Check Devices *page 23*
- ▶ Calibration Service *page 150*
- ▶ Soft X-Ray Slab Phantom *page 21*