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authorized distributor**

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**RPD Product Information**

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**Item Number Description**

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**300-632-BNC-M      \* PTW Model 34013 - 0.0053 cc Big Soft X-Ray Chamber**

# IONIZATION CHAMBER TYPE 34013

## Soft X-Ray Chamber 0.0053 cm<sup>3</sup>

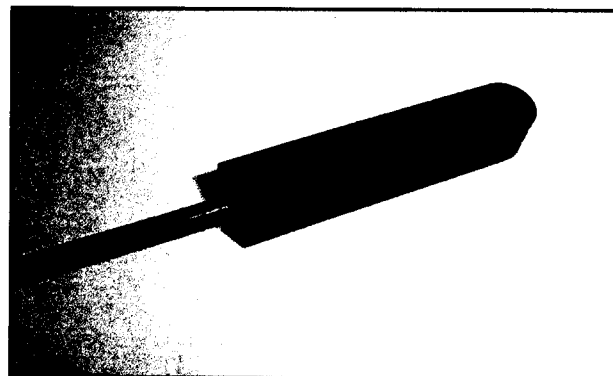
Radiation Therapy  
Diagnostic  
Radiology  
Nuclear Medicine  
Radiation Protection

### Description

The soft X-ray chamber type 34013 is used for measurements in radiation therapy. It can be used in air as well as in solid state phantoms. The typical calibration is at (15 ... 50) kV, the energy dependence is  $\pm 2\%$ . The extremely small design allows measurements at small fields or steep dose gradients.

### Technical Data

Volume:	0.0053 cm <sup>3</sup>
Response:	$2 \cdot 10^{-10}$ C/Gy
Leakage:	$\pm 1 \cdot 10^{-14}$ A
Polarizing voltage:	max. 400 V
Cable leakage:	$1 \cdot 10^{-12}$ C/(Gy · cm)
Wall material:	PE (CH <sub>2</sub> ) <sub>n</sub>
Membrane thickness:	0.025 mm
Area density:	2.3 mg/cm <sup>2</sup>
Electrode:	Graphite; 1.7 mm Ø
Range of temperature:	(10 ... 40) °C
Range of rel. humidity:	(10 ... 80) % (max. 20 g/m <sup>3</sup> )
Ion collection time:	400 V: 0,009 ms
Directional dependence:	$< \pm 5\%$ at $\leq \pm 10^\circ$
Connecting system:	Type B: BNC and Banana Type M: PTW-M Type N: Triax BNT Type W: Triax TNC



- Suitable for use in solid state phantoms
- Guard ring up to measuring volume
- Guard ring at potential of the collecting electrode. Touchable parts free of high voltage
- High voltage to be connected only with active current-limiting device ( $I_{\max} < 0.5$  mA)
- Open measuring volume
- If a check device is not available, an air density correction is necessary
- Lengthening cable up to 100 m available

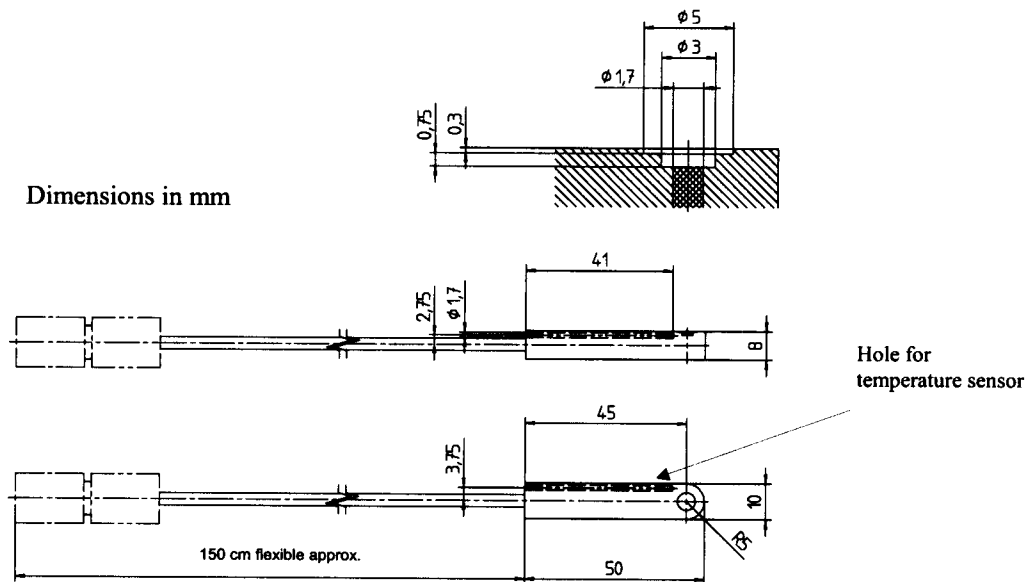
Saturation behaviour	Polarizing voltage	99.0 % saturation	99.5 % saturation
Max. dose rate at continuous irradiation	400 V	1900 Gy/s	990 Gy/s
Max. dose per irradiation pulse	400 V	10 mGy	4 mGy

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## Design



## Energy dependence

