



Radiation Products Design, Inc.

5218 Barthel Industrial Drive

Albertville, MN 55301

www.rpdinc.com

Phone: 800-497-2071 Fax: 763-497-2295

**RPD is an
authorized distributor**

RPD Product Information

Item Number Description

300-645-BNC-M	* PTW Model 30002 / 30011 - 0.6cc Graphite Farmer Chamber
----------------------	--

IONIZATION CHAMBER TYPE 30002

Radiation Therapy

Diagnostic Radiology

Nuclear Medicine

Radiation Protection

Graphite „Farmer“ Chamber 0.6 cm³

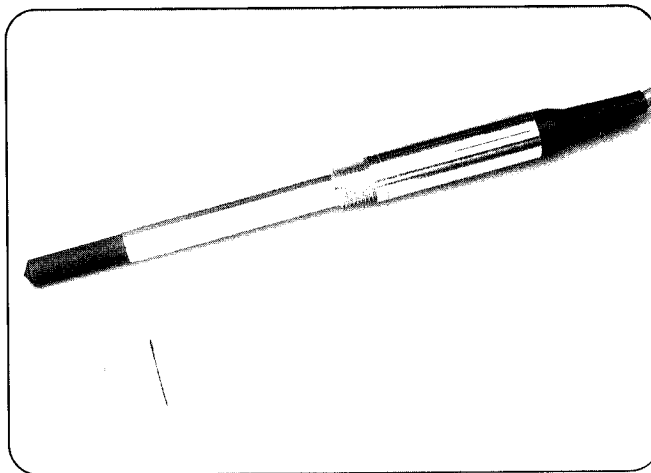
Description

The graphite 0.6 cm³ ionization chamber type 30002 is the chamber for absolute dosimetry for use with therapy doseimeters where a completely graphite-built chamber is required. This chamber is of delicate construction since it is equipped with a graphite cap and a graphite central electrode. It should be handled with care. The chamber is fully guarded up to the measuring volume.

The outer dimensions are fully compatible with the Farmer chambers of other manufacturers.

Technical data

Volume:	0.6 cm ³
Response:	$2 \cdot 10^{-10}$ C/Gy
Leakage:	$\pm 4 \cdot 10^{-11}$ A
Polarizing voltage:	max. 500 V
Cable leakage:	10^{-10} C/(Gy · cm)
Wall material:	Graphite
Wall density:	1.85 g/cm ³
Wall thickness:	0.45 mm
Area density:	83.3 mg/cm ²
Electrode:	Graphite; 1 mm Ø; 20.7 mm long
Range of temperature:	+ 10 °C ... + 40 °C
Range of rel. humidity:	20 % ... 75 %
Ion collection time:	300 V: 0.18 ms 400 V: 0.14 ms 500 V: 0.11 ms



- Guard ring up to measuring volume
- Suitable for use in solid state phantoms
- 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, without check device 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	300 V 400 V 500 V	5.3 Gy/s 9.4 Gy/s 14.5 Gy/s	2.3 Gy/s 4.6 Gy/s 6.5 Gy/s
Max. dose per irradiation pulse	300 V 400 V 500 V	0.5 mGy 0.7 mGy 0.9 mGy	0.2 mGy 0.3 mGy 0.35 mGy

PTW

PTW

