

Model N31010 & N31013 Beam Plotting Ion Chambers

These precision ion chambers from PTW have been designed specifically for beam scanning applications of photon and electron beams in water phantoms.

The Model N31010 (formerly N31002) has a nominal volume of 0.125 cc for increased spatial resolution along the axis, which allows scanning in all directions without repositioning the chamber. The internal dimensions of 5.5 mm diameter and 6.5 mm length make the sensitive volume almost spherical.

The Model N31013 (formerly N31003) has a nominal volume of 0.3 cc for improved signal-to noise and leakage current ratio.

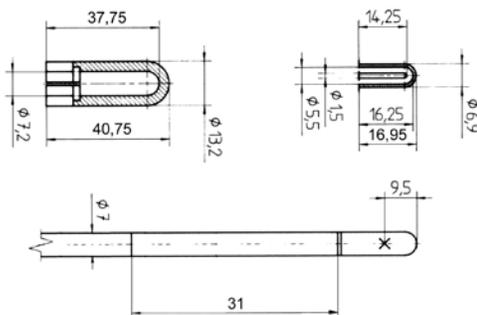
Both chambers have a rigid stem with a nominal outside diameter of 7 mm that allows convenient mounting in most water phantom chamber holders.

Although these ion chambers can be safely inserted and used in water, it is a matter of good practice to limit the immersion time to the actual duration of measurements. The chambers should be removed from the water, dried and stored shortly after completion of scanning studies.

Both chambers are supplied with an acrylic ⁶⁰Co buildup cap, 1 meter of cable terminated with triax BNC with cap and chain, and a foam-lined case.

Features:

- ▶ Waterproof ▶ Vented ▶ Fully guarded ▶ Rigid stem



Specifications

	N31010	N31013
Volume, nominal:	0.125 cc	0.3 cc
Sensitivity, nominal:	0.04 nC/cGy	0.1 nC/cGy
Sensitive length:	6.5 mm	16.25 mm
Sensitive diameter:	5.5 mm	5.5 mm
Electrode dimensions:	1 mm dia. x 5 mm	1.5 mm dia. x 14.25 mm
Aluminum stem length:	31 mm	31 mm
Electrode material:	aluminum, graphite coated	
Outside dia.:	6.9 mm thimble, 7 mm stem	
Wall thickness:	0.7 mm, 83.3 mg/cm ² , acrylic/graphite	
Leakage:	±4 x 10 ⁻¹⁵ A	
Polarizing voltage:	±500 V maximum	
Buildup cap:	acrylic, 3 mm thick, 360 mg/cm ²	
Cable type/length:	radiation resistant, 150 cm (5 ft)	
Cable sheath:	blue, radiation and light resistant	
Cable connector:	triaxial BNC standard, TNC optional	

Accessories

- 3BM-F10 10 m extension cable, triax BNC, male/female with caps and chains (also available in custom lengths and/or mounted in a reel)
- 3BF-3TMF Triaxial BNC to TNC adapter

