



Features

- ▶ Hemispherical geometry for easy placement and alignment
- ▶ High impedance for minimum drift
- ▶ High output – 32 nC/Gy typical
- ▶ Excellent output uniformity vs. gantry angle
- ▶ Outstanding stability – <0.1%/kGy at 6 MV photon beam
- ▶ Available in various water equivalencies for photons and electrons
- ▶ Tygon®-sheathed cable eliminates kinking

Modality	Model (neg.)*	Optimal energies	Buildup g/cm ²	Buildup material	Color code
Photons	40-1120	1–4 MV	1.0	Aluminum	Blue
	40-2120	6–12 MV	1.8	Brass	Gold
	40-3120	15–25 MV	3.0	Brass	Red
Electrons	40-5120	4–25 MeV	0.3	Acrylic	Silver
	40-6120	70 keV- ⁶⁰ Co	0.1	None	Black

* Positive polarity detectors available upon request.

Specifications

Detector type	n type diode
Detector size	0.8 x 0.8 mm ²
Sensitivity	32 nC/Gy
Impedance	>200 MΩ at 24°C, 10 mV reverse bias
Output polarity	Negative
Output stability	2% loss of sensitivity at 1000 Gy, 10 MeV electron beam
	0.1% loss of sensitivity at 1000 Gy, 6 MV photon beam
Temp. coefficient	0.5%/°C
Construction	Hemispherical, 12.7 mm flat bottom
Radiation hardening	Special technique
Cable	2 m low-noise coax, 2.5 mm thick with Tygon® sheath
Connector	Coax BNC male (Lemo optional)

Accessories

2BM-F10	10 m coax extension cable, with BNC connectors (Lemo connector optional, available in custom lengths in 1 meter increments)
2BF-LM	Adapter, coax BNC female, Lemo male
2BM-LF	Adapter, coax BNC male, Lemo female

EquiDose® II Diode Detectors

The EquiDose® II diode detectors are a new generation of solid state detectors exhibiting superior characteristics. Radiation damage is extremely low, with detectors typically retaining better than 94% of their original response after 15,000 exposures of 2 Gy, a total of 30,000 Gy. Axial directional response variation is typically less than 1%, ±90° from perpendicular. A low temperature coefficient minimizes sensitivity variation due to patient heat transfer during treatment.

Each photon EquiDose® II detector responds most effectively over one of three energy ranges. When used within its stated energy range, a calibrated detector will register a dose approximately equal to that expected at dmax. They operate in shorted junction mode and require no bias voltage.

EquiDose® II diodes are compatible with TheraPro, EquiLyzer, Sentinel 2, 22D, VeriDose, Rainbow, PDM and IVD.

