

Model PM-500 Scatter Dose Ionization Chamber

The Model PM-500 Scatter Dose Probe is a cylindrical ionization chamber with a sensitive volume of 530 cc. The primary purpose of the probe is to measure x-ray leakage and scatter in diagnostic x-ray facilities. The large chamber volume delivers a strong signal of 0.16 nC per mR.

With the appropriate connector adapter, the PM-500 may be used with the Model 8000 NERO® mAx, which features chamber sensitivity factor programmability. It may also be used with Models 4000+, 4000M+ or the RAD-CHECK® PLUS, but the displayed values must be corrected with the chamber sensitivity factor.

The chamber is equipped with a TNC-MM connector and a calibration certificate. CNMC can supply an appropriate connector adapter to make the PM-500 compatible with any high-grade, commercially-available charge and current reading dosimetry electrometer.

Features:

- ▶ Large 530 cc cylindrical volume
- ▶ Designed to measure scatter with Models 8000, 4000+ and 4000M+ non-invasive x-ray beam analyzers

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Specifications

Chamber volume:	530 cc, nominal
Sensitivity:	0.1 phoo6 nC/mR, nominal
Energy response:	within ±3%, from 0.5mmAl, 18 - 700 keV
Leakage current:	<10 ⁻¹⁴ A, nominal
Chamber size:	7 cm dia. x 17 cm (2.75 x 6.7 in)
Wall material:	polypropylene, graphite coated interior and exterior
Wall thickness:	1.2 mm
Wall density:	120 mg/cm ²
Electrode:	polypropylene and aluminum
Averaging area:	100 cm ²
Suggested Bias:	+/-300 V
Connector:	TNC-MM (male/male)
Cable:	none (see accessories)
Weight:	90 grams (3.2 oz)

Accessories

3BM-3TFF	Adapter, converts TNC-MM to triax BNC male for use with triax BNC extension cables
3TFF-2BMP5	Triaxial extension cable, 5 meters (16 ft) TNC to coaxial BNC for signal, banana plug for bias
Custom cables:	Custom lengths in 1 meter increments, BNC or TNC terminations