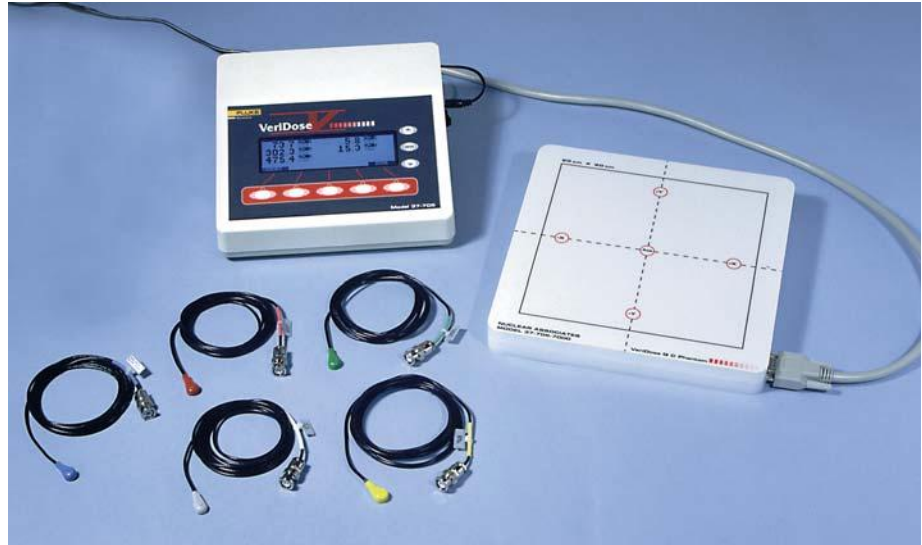


VeriDose® PDMQC System

Nuclear Associates Model 37-705

Two systems in one

- VeriDose PDMQC is a five-channel patient dose monitor and a linear accelerator quality control device
- Measures beam constancy, flatness, and symmetry
- Optional diodes available in a variety of photon energy ranges, polarity, and electrons



Pictured Model 37-705-7777 with optional diodes

Features

Accuracy

- Measurements and updates are provided in real time, accurate to within 1% or better
- Automatically adjusts the proper offset voltage for each detector, resulting in up to ten times less drift than other products

Time-savings

- VeriDose PDMQC stores up to 25 separate calibration sets. (A calibration set can be created for up to five diodes at a time.) As a result, the frequency of calibrations you do is significantly reduced. Setup time and error potential are also dramatically reduced, leaving more time for patient treatment

Documentation

- When interfaced with a standard printer, you can print:
 - Patient treatment dose reports
 - Date and time of the procedure
 - Diode detector group and serial number
- In vivo measurements with the VeriDose PDMQC as a patient dose monitor are reimbursable under CPT-4 Section 77331 Special Dosimetry

Introduction

Our innovation and leading-edge technology combines the powerful performance capabilities of patient dose monitoring and linear accelerator quality control into one compact, easy-to-use product.

We give you this powerful combination of technology and versatility for a lower price than you would expect to pay for one unit alone.

Applications

Use VeriDose PDMQC as a patient dose monitor and when needed, just simply plug in the VeriDose QC Module and VeriDose PDMQC is transformed into a precision linear accelerator quality control device.

Two radiation oncology products in one:

- It's a linear accelerator quality control device (it measures beam constancy, which includes flatness and symmetry).
- It's a five-channel patient dose monitoring system that records patient dose verification data from actual radiation measurements made on the patient during treatment.

Specifications

Electrometer

Input circuitry Five electrometer channels with digital zeroing and gain control; bi-polar

Rate range 1.0 to 1000 cGy/min

Dose range 0.1 to 1000 cGy

Sensitivity adjustment 0.1 to 10 nC/cGy

Display 240 x 64 dot LCD. 8 lines x 40 characters, with CCF backlight

Clock Real time clock, battery operated, US or European format

Alarm User-selectable level for each channel

User controls On-Off switch, 5-column select soft-keys for control functions, scroll-up, scroll-down, and enter key for data entry

User setup parameters Stored in nonvolatile, battery-backup RAM

Computer interface RS-232, 19.2 BAUD, 8, N, 1.

Data format: standard decimal points or Euro-commas

Printer interface Parallel, selectable drivers for LaserJet in ASCII format only

Environmental

Storage temperature 32° to 158°F (0° to 70°C)

Operating temperature 50° to 86°F (10° to 30°C)

Relative humidity 5% to 95%, non-condensing

Power requirements 120 VAC, 60 Hz or 230 VAC, 50 Hz to 12 VDC @ 1A. AC adapter, UL, CSA, CE

Dimensions 9 (w) x 8.5 (d) x 2.5 in (h) (22.9 x 21.6 x 6.4 cm) (EMI shielded)

Weight 2.5 lb (1.2 kg)

Phantom

Detector Five diode detectors

Energy range

Photon 4 to 25 MV

Electron 5 to 25 MeV

Sensitive volume 0.25 mm³

Sensitivity 1.5 nC/cGy

Diode polarity Negative

Rad damage at 10 kGy < 15%

Detector configuration

Flatness/Symmetry One central axis. Four orthogonally-positioned at 8 cm off central axis in the transverse and radial dimensions. Off-axis detectors are positioned at 80% of field size for flatness and symmetry measurements

Energy constancy Detector Depth Positions: 4.5, 12.5 and 20.5 cm

Interface cable 50 ft (15 m)

Buildup 1.9 cm acrylic (2.3 g/cm²)

Dimensions 9.85 (w) x 9.85 (d) x 1.5 in (h) (25 x 25 x 3.8 cm)

Weight 5.25 lb (11.6 kg)

Optional accessories

VeriDose Excel Add-In Software, 3.5 inch disk
(Model 9437705EXL)

Diode Holder, with five slots (Model 30-492-1000)

Calibration Jig, with six slots (Model 30-492-5200)

VeriDose Solid-State Diode Detectors (Model 30-471, *see next page for diode specifications*)

Available model(s)

37-705 VeriDose V Electrometer

37-705-7777 VeriDose PDMQC System, consists of electrometer, Excel add-in software, and VeriDose PDMQC Phantom

CE Tested. Meets applicable standards.

For more information, receive our full product catalog, or order online, contact **Radiation Management Services** business of **Fluke Biomedical**: 440.248.9300 or www.flukebiomedical.com/rms.

Specifications are subject to change without notice.

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