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reputation in
the medical
industry.

Assurance we
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LACO Inc.

can do it all!



Features

- * Provides a 27 x 27 ion chamber matrix resulting in an effective measuring field of 27 cm x 27 cm
- * Can be used e.g. in a slab phantom due to the flat design
- * Records dynamic and static fields in just one run
- * Displays absorbed dose or dose rate
- * Avoids detector ageing effects by utilizing ion chambers

The 2D-ARRAY *seven29* is a new concept of an ion chamber matrix in a plane for IMRT verification and quality control in radiation therapy. Utilizing ion chambers avoids radiation defects, the major drawback of solid-state detectors. The vented plane-parallel ion chambers are 5 mm x 5 mm x 5 mm in size, and the center-to-center spacing is 10 mm. In total there are located 729 chambers in a matrix 27 x 27, providing a maximum field size of 27 cm x 27 cm. The surrounding material is acrylic (PMMA).

The 2D-ARRAY *seven29* can be used for the dose verification of IMRT beams by using the VeriSoft software, and it can be used for routine quality control of high-energy photon and electron beams by using the MultiCheck software. MLC leaf positioning can also be checked by the 2D-ARRAY *seven29*.

The package includes an interface for fast data acquisition. The display cycle can be set between 400 and 1000 ms and the MatrixScan software acquires dose and dose rate data, displays 3D graphics and transfers the acquired data to VeriSoft, MultiCheck or MEPHYSTO mc² software.

seven29 2D-ARRAY Ion Chamber Matrix

Detector matrix with 729 ionization chambers for quality control and dosimetry in radiation therapy

Specifications

* Type of product	Two-dimensional array with 729 ionization chambers in a plane
* Application	- QA of high energy beams - QA and dose verification of IMRT beams
* Measuring quantity	Absorbed dose Absorbed dose rate
* Range of use	(0.5 ... 8) Gy/min
* Resolution	1 mGy resp. 1mGy/min
* Dead Time	zero
* Display Cycle	(400 ... 1000) ms
* Type of detector	Vented plane-parallel ionization chambers
* Detector Layout	729 in a matrix of 27 x 27, spacing 10 mm center-to-center
* Size of Detectors	5 mm x 5 mm x 5 mm (0.125cm ³)
* Depth of Chambers reference point	5 mm from surface
* Max. Field Size	27 cm x 27 cm
* Outer dimensions	300 mm x 420 mm x 22 mm
* Material	PMMA
* Weight	3.2 kg

