

LDA-99 linear array and multichannel dosemeter emXX

- Fast and reliable commissioning and QA of dynamic and conformal beams
- Highest accuracy: 99 diodes with 5 mm spacing
- Fully integrated into OmniPro-Accept software for measurements, calibration and data analysis
- Unique Hi-pSi detector technology

Applications

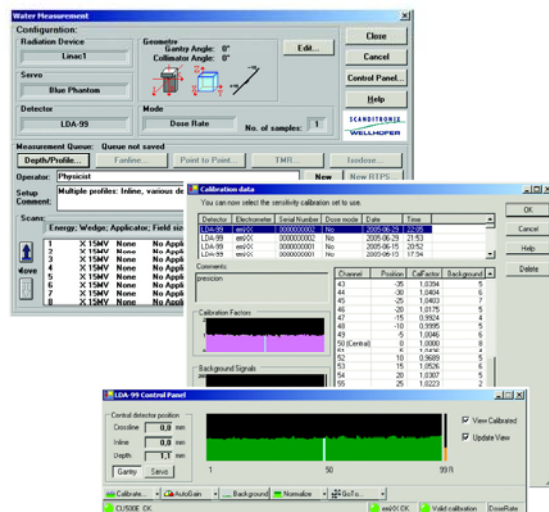
- Commissioning and quality assurance of dynamic radiation fields and multileaf collimated fields
- Fast measurements of one-dimensional or two-dimensional dose distributions of radiation fields
- Measurement and analysis of real-time dose distribution for online adjustment of the linear accelerator
- Wedge angle measurement and calculation according to IEC and ICRU protocols
- In-water and in-air measurements
- Suitable for electrons and photons



Operation

With a single measurement, the LDA-99 linear array captures 99 data points at 5 mm intervals. Computer controlled longitudinal movement by user-defined distance increases the resolution up to 1 mm or better if needed. Therefore, one- or two-dimensional dose distributions can be measured very quickly. For dynamic radiation fields or scanning beam accelerators, each set of 99 data points is recorded over an entire treatment cycle. The LDA-99 is easy to set up and align under the Linac beam. The set-up of the emXX is software controlled and all relevant parameters are continuously checked.

A 2D matrix can be calculated from a series of parallel profile measurements. Predefined isodoses can subsequently be extracted with one mouse click only.



Technical specifications

LDA-99

Number of diodes:	99
Diode spacing:	5 mm (center-to-center)
Diode specifications:	
Type of silicon	Hi-pSi diode detectors
Chip size	2.45 x 2.45 mm ²
Chip thickness	0.5 mm
Diameter of active area	2.0 mm
Thickness of active volume	0.06 mm
Sensitivity (Gy/nC)	35
Effective measurement point	<1 mm
Positioning in phantom (degrees):	0, 45, 90 and 135
Outer dimensions:	495 mm (L) x 34 mm (W) x 26.4 mm (H)

emXX

Number of channels:	99+1
Measurement mode:	dose, dose rate (incl. real-time), simultaneous measurements of all channels
Characteristics (Dose/Dose rate):	
Input range	0 nA to 500 nA
Accuracy	+/- 1% for currents > 10 pA
Resolution	100 fC (for charge values up to 0.2 mC)
A/D converter	120 simultaneous working A/D converters
Dimensions:	320 mm (L) x 265 mm (W) x 70 mm (H)
Weight:	3.75 kg

Software

Fully integrated in OmniPro-Accept software platform (Version 6.4 and upwards).

Accessories

Build-up for in-air measurements: 10, 15, 20 and 25 mm
Holder to Blue Phantom and RFA systems

Backwards compatible with both Blue Phantom and RFA phantoms.

Technical data is subject to change without prior notice.

Sweden: Scanditronix Wellhöfer AB – Stålgatan 14 – SE-754 50 Uppsala
Tel.: +46 18 18 07 00 ☐ Fax: +46 18 12 75 52

Germany: Scanditronix Wellhöfer GmbH – Bahnhofstr. 5 – DE-90592 Schwarzenbruck
Tel.: +49 9128 607 0 ☐ Fax: +49 9128 607 10

USA: Scanditronix Wellhofer North America – 3150 Stage Post Drive, Suite 110 – Bartlett, TN 38133
Tel.: +1 901 386 2242 ☐ Fax: +1 901 382 9453

China: Scanditronix Wellhöfer China – 100015-92 Dashanzi, Chaoyang district – CN-100015 Beijing
Tel.: +86 10 6437 2760 ☐ Fax: +86 10 6437 2763

www.scanditronix-wellhofer.com ☐ info@scanditronix-wellhofer.com

Member of the IBA Group