

Patient Dose Calibrator PDC

Quick and Easy Calibration - of Installed DAP (KAP) and Patient Dose Systems

What's it all about?



TRACEABLE MEASUREMENTS - The PDC is a reference class instrument for "field calibration" of patient dose measurement and control systems thus ensuring the validity of inter-institution patient dose comparisons.

FLEXIBLE AND CONVENIENT - Use the PDC with a phantom to simulate patient imaging conditions including scattered radiation or mount the PDC on its support stand to measure air Kerma.

SIMPLE TO USE - The PDC displays DAP (KAP) and dose rate during an exposure then automatically switches to display accumulated DAP (KAP) and dose on exposure completion.

DEPENDABLE - A tough ABS plastic housing protects the ion chambers and electronics that incorporate several patented features to ensure long term stability.

PDC KEY FEATURES AND BENEFITS:

KEY FEATURES

Complete DAP meter assessment:

Symmetrical Response:

Patient Dose System assessment:

- 1. Dose/DAP Air Kerma Calibration:
- 2. Entrance (skin) Dose / DAP Calibration and QA:
- 3. Image Receptor Dose/ DAP Calibration and QA:

Optional Remote Control Software:

Optical and radiographic alignment markers:

BENEFITS

Measures DAP, DAP-rate over a full range of field sizes and beam qualities

Can be used with under-couch tubes without the need for inversion

Measure Dose and Dose-rate

Measure DAP and dose linearity with dose and field size

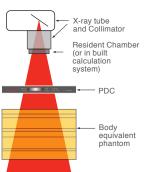
Surface dose calibration with phantom and establish reference DAP and dose levels

Verify Image Receptor dose measurements and AEC linearity testing

Automatic data capture with customizable templates

Setting reference field sizes made simple

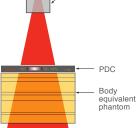
APPLICATIONS



DOSE / DAP AIR KERMA **CALIBRATION**

- · DAP and dose linearity with dose and field size.
- Sensitivity testing.
- DAP and dose calibration at the patient plane or at a reference distance.

ENTRANCE (SKIN) DOSE /



X-rav tube and Collimator

X-ray tube and Collimator

Body

equivalent

Image receptor AEC

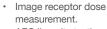
DAP CALIBRATION AND QA

- calibration for different examinations using a phantom.
- dose levels.

Entrance surface dose

- Establishing examination
- related reference DAP and

IMAGE RECEPTOR DOSE / DAP CALIBRATION AND QA



AEC linearity testing.

SPECIFICATIONS / TECHNICAL DATA:

Display Range

Dose area product Air kerma

Accuracy

DAP and Air kerma

Digital Resolution

Dose area product Dose area product rate Air kerma

Air kerma rate

Rated range of use

Tube voltage Dose area product:

> (low rate range) (high rate range)

Air kerma rate

(0.01... 99 999 999)µGy·m²

(0.001... 99 999 999)mGy

Inclusive of all uncertainties (temperature, pressure, rate, area and beam quality) ± 10%

Under reference conditions (10 mGy/min, 15 X 15 cm field, 80 kVp, 2.5 mm Al filtration) ± 7.5%

0.01 µGy⋅m² 1µGy⋅m²/min

0.001mGy 0.1 mGy/min

(40 ... 150) kV

(1 ... 1·10⁴) μGy·m²/min (2·10³ ... 9·10⁵) μGy·m²/min

(0.2 ... 9 ·103) mGy/min (at the position of the chamber)

Automatic Temperature and Pressure Correction

Pressure Temperature

Air humidity

(80.0 ... 106.0) kPa (+10 ... +40) °C

(10 ... 80) % rel. humidity (max. 20 g/m³)

Ionization chamber

Response versus radiation quality (50kV ... 150 kV, norm. to 100kV; acc. IEC 60580) Quality equivalent filtration (70kV) Active area

> Dose area product Air kerma

±3%

0.6 mm Al

max. (300 x 300) mm² min. (100 x100) mm²

Power supply

Internal rechargeable battery pack operation time (state of charge: 100%)

Serial Interface Protection class (acc. IEC 60529)

Weight Dimension

Li-ION, 2 cells > 8 h

USB IP 41

2.32 kg

350 mm x 410 mm x 35 mm $(L \times W \times H)$

All specifications subject to change



PORTABLE CONVENIENT CARY CASE

Foam Elevation Support Stand fits inside the interior of the Carry Case lid.