



FEATURES

The DMC 2000XB is an X-ray/gamma and beta detection dosimeter, featuring dose rate and programmable alarms. The DMC 2000XB is user friendly, lightweight and water resistant.

- X-ray/gamma energies: 20 keV to 6 MeV
- Beta energies 60 keV to 3.5 MeV
- Dedicated to simultaneous measurements of X-ray, gamma and beta radiations
- Small, light, ergonomic, compact and rugged
- Compliant with international standards and local rules
- Hand free communication reading system with data centralization

DMC 2000XB Personal Electronic Dosimeter

The use of β particle emitters for radiation therapies (treatments of eye tumors, coronary arteries, or inflammatory joint diseases) has significantly increased during recent years, and this has made the use of dedicated β dosimeters essential.

The DMC 2000XB was designed, to allow simultaneously deep dose equivalent Hp(10) and shallow dose equivalent Hp(0.07) measurements for X-ray, gamma and beta emissions. Furthermore it can be used as an operational dosimetry system for all medical risk assessment including radiological exposures, and in addition has applications in radioactive source production facilities, nuclear power plants and other nuclear facilities.

RELATED PRODUCTS

MGP Instruments offers a range of products which can be used with the DMC 2000XB to create integrated dosimetry systems including:

- LDM 220, LDM 230 proximity readers
- LDM 2000 pass-by data exchange
- DOSISERV dosimetry centralization and access control software
- DOSIMASS dosimeter configuration software
- DOSICARE and DOSIFAST operational dosimetry software
- IRD 2000 irradiator for dosimeters

health physics

A Mirion Technologies Division

Featuring:



PHYSICAL CHARACTERISTICS

- Complies with IEC 61526 Ed 1
- Measurement and display:**
- display units: mSv, μ Sv or mrem
- dose display: 1 μ Sv to 10 Sv (0.1 mrem to 1000 rem)
- dose rate display: 0.01 mSv/h to 10 Sv/h (1 mrem/h to 1000 rem/h)
- measurement range: 0.1 μ Sv/h to 10 Sv/h
- Linearity:**
- < $\pm 20\%$ up to 1 Sv/h (100 rem/h)
- < $\pm 30\%$ up to 10 Sv/h (1000 rem/h) for X, $\gamma > 60$ keV and β
- < $\pm 25\%$ up to 3 Sv/h (300 rem/h) for X < 60 keV
- Energy response:**
- X, γ rays: 20 keV to 6 MeV
- β $E_{\text{mean}} > 60$ keV (E_{max} : 0.22 MeV to 2.3 MeV)
- Accuracy: < $\pm 10\%$ (^{137}Cs , ~ 30 mSv/h, including $\pm 5\%$ of extended uncertainty K=2)

ELECTRICAL CHARACTERISTICS

- Li MnO₂ standard CR2450 battery: battery life > 9 months (8h per day in run mode)

MECHANICAL CHARACTERISTICS

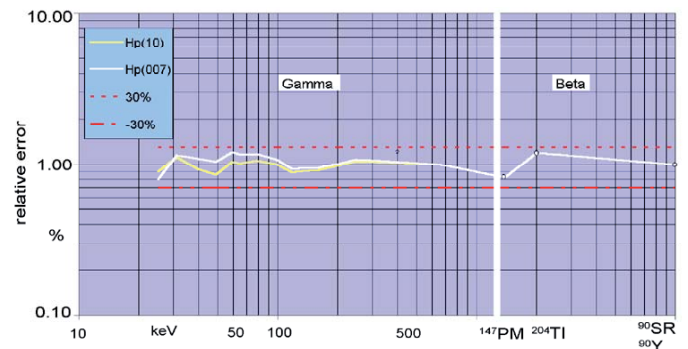
- Dimensions: 87 x 48 x 28 mm (3.4 x 1.9 x 1.1 in) with clip
- Weight with battery: < 59 g (2 oz)
- Worn by a replacable clip

ENVIRONMENTAL CHARACTERISTICS

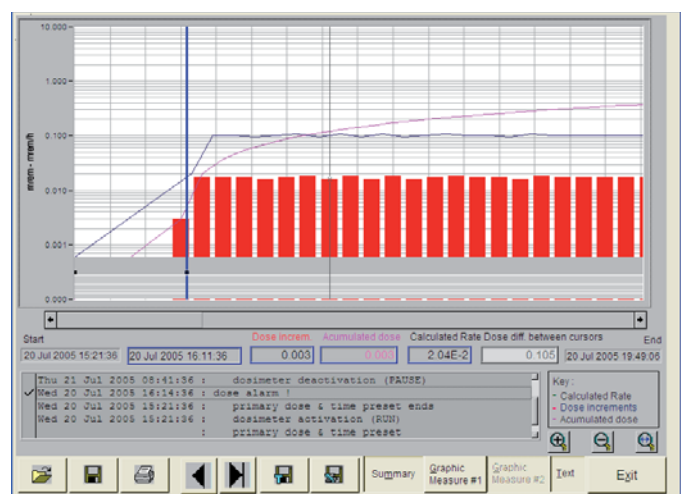
- Temperature range: -10°C to 50°C (14°F to 122°F)
- Humidity: < 90 % at 42°C (108°F)
- Storage: -30°C to 71°C (-22°F to 160°F)
- Shock, vibration and drop resistant, water resistant IP42
- EMC: complies and exceeds CE standards

CUSTOMIZATION

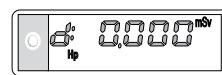
- setup can be achieved by user with DOSIMASS software



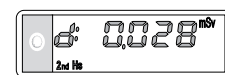
DMC 2000XB energy response



The history enables detailed event reconstruction for efficient analysis of incident situation circumstances.



Hp(10) - deep dose



Hp(0.07) - shallow dose

With the display directly visible to the wearer, many functions are available using alphanumeric characters.



Technician using the hands-free capability of the DMC 2000S with LDM 2000 reader.



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