

DMC-2000xb



detection

radiation

- operational dosimetry for commercial, research, civil and defense personnel working with ionizing radiation sources
- operational dosimetry of medical personnel during X-rays monitoring and isotopic preparations

pass by data
exchange
compact
rugged
economical

- can be used in autonomous mode or integrated into a dosimetry system
- shared or individually assigned use
- tracking by area or sub-area
- history including localization
- audible and visual alarms
- self-testing
- uses a standard battery
- remote dosimetry, extremity measurements, and can be used as an area monitor
- compatible with DMC 100/90, LDM 91/101, CDM 21



The DMC 2000 XB simultaneously measures, stores and displays both deep dose equivalent Hp(10) and shallow dose equivalent Hp(0.07). It features a flat response over all practical X-rays and gamma rays range and a unique beta range, down to the theoretical limit of penetration, including Co60 beta, major threat in plants. The unit's top mounted LCD clearly displays dose or dose rate for shallow or deep dose equivalent.

physical characteristics

- conforms with CEI 1526
- display units: mSv, mrem
- measurement range:
 - dose: 1 μ Sv to 10 Sv (0.1 mrem to 1000 rem)
 - rate: 0.1 μ Sv/h to 10 Sv/h (0.01 mrem/h to 1000 rem/h)
 - display: 0.01 mSv/h to 10 Sv/h (1 mrem/h to 1000 rem/h)
- linearity:
 - < +/- 10 % up to 1 Sv/h (100 rem/h)
 - < +/- 25 % up to 10 Sv/h (1000 rem/h) for X, γ > 60 keV and β
 - < +/- 25 % up to 3 Sv/h (300 rem/h) for X < 60 keV
- energy response:
 - X, γ rays: 20 keV to 6 MeV
 - β $E_{mean} > 60$ keV (E_{max} : 0.22MeV to 2.3 MeV)
- accuracy:
 - < +/- 5 % (^{137}Cs , 0.2 mSv/h; 20 mrem/h)

electrical characteristics

- LiMnO₂, CR2450 battery, 9 months battery life with 10% alarm time

mechanical characteristics

- dimensions: 84 x 48 x 17.5mm (3.3" x 1.9" x 0.7")
- weight with battery: < 70 g (2.2 oz)
- worn by a detachable clip

environmental characteristics

- temperature: -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
- EMC: conforms with and exceeds **CE** standards
- weatherproof version

customization

- setup can be accessed by user with DOSIMASS software

options, accessories

- LDM 91/101 adapter sleeve
- compact transmitter CTM 2000
- interface module (AM 16)
- PEA 100 (Pocket External Alarm)
- photo holder

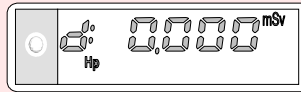
related products

MGP Instruments offers a line of products which can be used with the DMC 2000 XB to create integrated dosimetry systems. This product line includes :

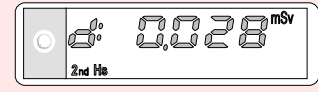
- LDM 2000 : pass by data exchange
- DOSIVIEW : dosimetry centralization and access control software
- DOSIMASS : dosimeter configuration software
- DMC 100/90 : electronic dosimeters
- LDM 91/101 : dosimeter readers
- CDM 21, and IRD 2000 : dosimeter calibrator

(documentation is available upon request)

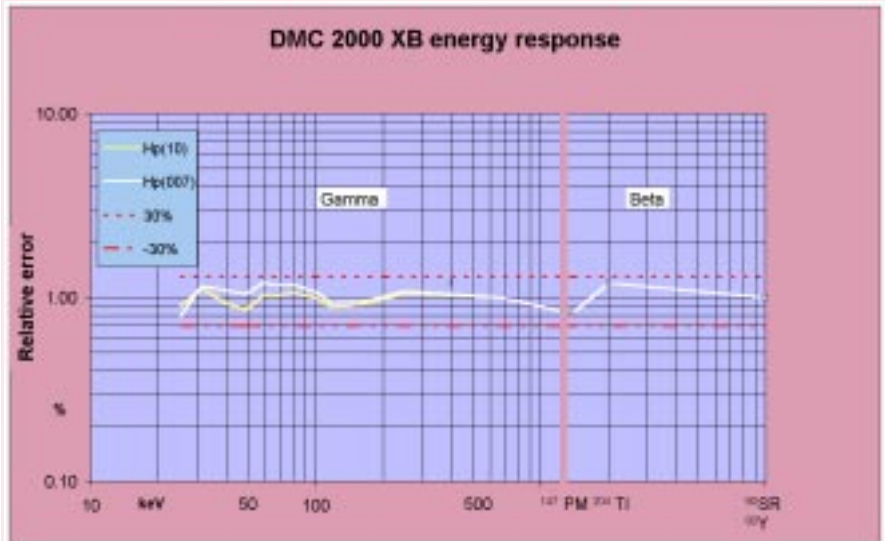
With the display directly visible to the wearer, many functions are available using alphanumeric characters.



Hp(10) - deep dose



Hp(0.07) - shallow dose



The pass by data exchange feature gives unequaled operational flexibility:

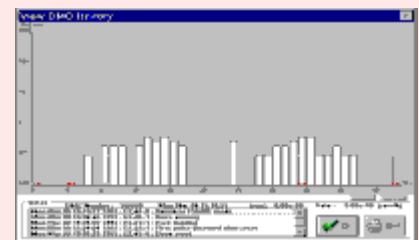
sub-area, as well as real-time localization of the worker, all without placing any restrictions on the dosimeter wearer.



- dosimeters can be read even when placed under clothing
- bi-directional transmission and protection against disturbances
- identifies and transfers dosimeter data up to 3 people passing by the LDM 2000 reader's field
- typical range 1.2 m (4'), 2.4 m (8') with LDM 2000 + external antenna

The history enables events to be reconstructed in detail, allowing the circumstances surrounding incident situations to be analyzed.

- more than 700 steps of histogram saved to non-volatile memory (EEPROM) with increments of 10s, 1 min., 10 min., or 24 hours (for Hp(10) only)



Due to evolutions in standards and equipment, the information provided is subject to change without notice. Please contact us for confirmation.

