DMC 2000S

Personal Electronic Dosimeter

The DMC 2000S features flat energy response to X-rays and gamma field from 50keV to 6Mev and linear response to dose rate fields from natural background up to more than 10 Sv/h.

The pass-by data exchange feature gives unequal operational flexibility. In-motion reading allows dose management by sub-zone as well as real-time location tracking of personnel.

FEATURES

The DMC 2000S featured display of dose, dose rate and programmable alarms. The DMC 2000S is user friendly, lightweight and waterproof.

- Stand-alone device or integrated into a dosimetry system
- Audible and visual alarms
- Large internal histogram memory
- Self-testing diagnostics (battery, detector and parameters)
- Hand free communication, pass-by exchange
- Optional teledosimetry or use as an area monitor

RELATED PRODUCTS

MGP Instruments offers a range of products which can be used with the DMC 2000 S 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:
MGP INSTRUMENTS

PHYSICAL CHARACTERISTICS

- Compliant to IEC 1283, ANSI 4220A
- PTB approved version, compliant with IEC61526 ed2
- **Measurement and display:**
  - display units: mSv, µSv or mrem
  - dose: 1 µSv to 10 Sv (0.1 mrem to 1000 rem)
  - display rate: 0.01 mSv/h to 10 Sv/h or 0.001 mSv/h to 10 Sv/h (extended option)
  - measurement range: 0.1 µSv/h to 10 Sv/h
- Linearity:
  - <± 20 % up to 1 Sv/h (100 rem/h)
  - <± 30 % up to 10 Sv/h (1000 rem/h)
- X and gamma energy range: 50 keV to 6 MeV
- Accuracy: <± 10 % (^{137}Cs, ~ 25 mSv/h including ± 5 % extended uncertainty K=2)

ELECTRICAL CHARACTERISTICS

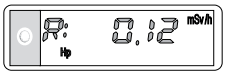
- Standard calculator battery $LiMnO_2$ CR2450, one year battery life (typical, 8h per day in run mode)

MECHANICAL CHARACTERISTICS

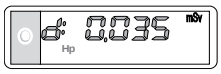
- Dimensions: 87 x 48 x 28 mm (3.4 x 1.9 x 1.1 in) with clip
- Weight with battery: < 56 g (1.9 oz)
- Worn by a replacable clip

ENVIRONMENTAL CHARACTERISTICS

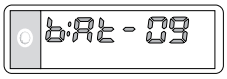
- Temperature range: -10°C to 50°C (14°F to 122°F)
- Humidity: < 90 % at 42°C (108°F)
- Storage: -30°C to 71°C (-22°F to 160°F)
- Shock, vibration and drop resistant, waterproof IP67
- EMC: complies and exceeds standards by a large margin
- Factory calibration approved under ISO/CEI 17025



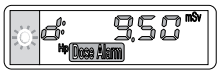
Dose rate display



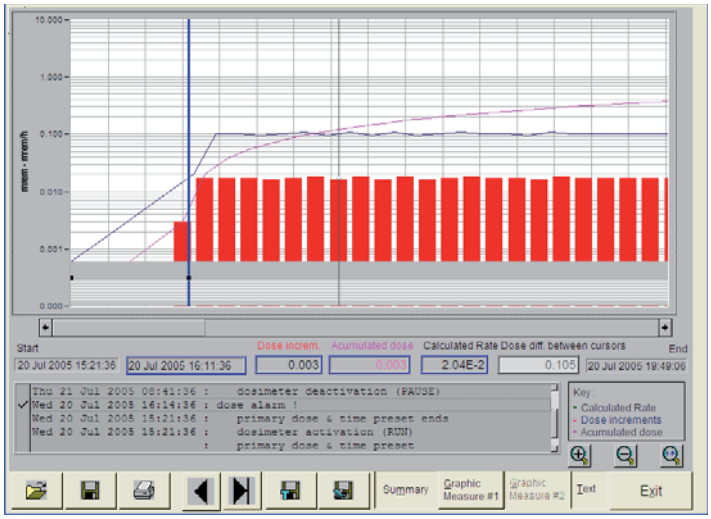
Accumulated dose display



Low battery: 9 hours remaining



Dose and alarm



The histogram enables events to be reconstructed in detail. Radiological supervisors can then analyze the data surrounding an incident.

- Histogram are saved to non-volatile memory (EEPROM)
- workers dose stored in increments of 10 s, 1 min,10 min or 24 hours with compression of consecutive zero dose intervals
- Event log (alarms, faults, changes) marks events during the selected time period
- Time and data of passage with sub-zone notation
- Stores data for several consecutive workers' entries and exits (up to 700 steps version 2 and up to 3800 steps version 3)

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

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