



ACTIVE DOSIMETRY

DMC 3000™

Personal Electronic Dosimeter



The DMC 3000 is an active dosimeter used to detect and prevent radiological exposures by alarming the wearer. Its compact, robust design makes it suitable for any environment where radiation exposure is a concern, including radiation types used with medical research and clinical applications.

The DMC 3000 dosimeter supports medical professionals working in radiological environments – hospitals, research facilities, diagnostic imaging and radiation therapy centers – with precise, reliable detection of X-rays and gamma radiation.

The dosimeter features configurable alarms and alert settings for immediate notification when the user-defined threshold is exceeded, protecting the safety of the user dosimeter.

The DMC 3000 dosimeter can be used in a standalone manner for smaller satellite offices and clinics or as part of an integrated ecosystem in a large healthcare facility. It can be easily worn with personnel dosimetry badges to provide incremental dose estimates from higher exposure procedures such as cardiac catheterization or other interventional radiology procedures. The device can be enhanced with modules for increased detection capacity or connectivity features.

Robust, compact and lightweight, the DMC 3000 dosimeter is easy to wear throughout the day, and allows the user to focus on important tasks without inconveniences. A user-friendly interface and clear display ensure quick readability when timely understanding of radiation levels is critical.

FEATURES

- ✓ Easy to use, with simple 2-button navigation
- ✓ Loud, vibrating, multidirectional ultrabright LED alarms
- ✓ Designed to be robust, durable lightweight
- ✓ Highly visible backlit display
- ✓ Easy to decontaminate and alcohol resistant
- ✓ Long battery life
- ✓ Superior X-ray and gamma energy response (Hp(10)) down to 15 keV and 1 ms pulse X-ray widths
- ✓ Exceeds applicable IEC standards



ELECTRICAL CHARACTERISTICS

- Battery: standard AAA (LR03) 1.5 V Alkaline
- Autonomy:
 - 12 calendar months battery life (typical, 8 h per day, 5 days per week in run mode, without excessive alarms) (1)
 - 3,000 h battery life in continuous mode, without excessive alarm (1) (1) 0.1% of the time in alarm, with a quality industrial battery

MECHANICAL CHARACTERISTICS

- Case: rugged, high impact polycarbonate-ABS
- Dimensions: 87 x 60 x 21 mm (3.4 x 2.3 x 0.8 in) max. without clip
- Weight: < 88 g (3.1 oz) with alkaline battery and clip
- Replaceable clips: 3 back clips and 1 front-facing clip

ENVIRONMENTAL CHARACTERISTICS

- Temperature range: -10 °C to +50 °C (+14 °F to +122 °F)
- Relative humidity: < 90% at +42 °C (+108 °F)
- Storage: -20 °C to +71 °C (-4 °F to +160 °F) without battery
- Shock, vibration and drop resistant (1.5 meter on concrete)
- Waterproof IP67: 1 m (39 in) during 1 hour
- EMC: complies and exceeds standards by a large margin (certificate number: 153720)
- Factory calibration approved under International Laboratory Accreditation Cooperation Agreements (ILAC); ISO/IEC 17025, COFRAC accreditation N° 2-1663

ASSOCIATED PRODUCTS

- Reader LDM 320 & DMCUser™ (DMC Companion Software)
- Bluetooth Low Energy Module & ConnectStudio™ (Bluetooth Management Software)
- Beta Module (Measurement of dose extremity - Hp(0.07))
- Neutron Module (Dose and dose rate Neutron Hp(10))

FUNCTIONAL FEATURES

DISPLAY FEATURES

- Large LCD display with high quality white backlighting
- Eight alphanumeric digit display for full name display and fix dose/dose rate display format
- Two push buttons for an easy customized data and parameters display

ALARM FEATURES

- Audible and tactile
 - Alarming speaker with level of 85 dB (A) typical (> 90 dB (C) peak) at 30 cm (11.8 in), frequency < 4800 Hz
 - Vibrating alarm
- Visual
 - High efficiency red flash LED on front
 - Three top LEDs for Alarming (Red), gamma counting (Green), and Hp(0.07) or Neutron counting (Blue)
- Customize
 - Adjustable dose and dose rate alarms
 - Adjustable and acknowledgeable dose and dose rate warnings
 - Configurable visual and audible alarm chirp
 - Configurable latched dose rate alarm and warning
 - Remaining time and run time alarms

DISPLAY HISTOGRAM FEATURES

- Dose increments with a 1 μ Sv (0.1 mrem) resolution and dose rate saved on non-volatile memory (EEPROM) in configurable steps
- Event log (alarms, faults, changes) saved during the selected time periods
- Stores data for several consecutive workers' entries and exits (more than 2,500 steps)

COMMUNICATION

- Hands-free communication, frequency: 125 kHz with Mirion Reader
- Bluetooth Low Energy communication to ConnectStudio software



Available Through Mirion Medical Companies: Capintec & Sun Nuclear

Health Physics for Healthcare solutions enable radiation monitoring in healthcare applications – a critical aspect of safety and compliance for all facilities using radiation in patient diagnosis and care.



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TECHNOLOGIES

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