



FEATURES

- Loud Alarm, > 85 dB Peak
- Vibrating alarm
- Highly Visible Backlit Display
- Optional Telemetry
- Factory Upgradeable Firmware
- Simple 2-Button Navigation
- Extended Dose Rate Alarms
- Dual UltraBright LED Alarm
- Superior X-Ray and Gamma Energy Response
- Meets or Exceeds Applicable IEC and ANSI Standards
- Designed for Ruggedness and Durability

DMC 3000 Personal Electronic Dosimeter

Mirion Technologies provides a complete line of hardware and software products targeted to Health Physics and Radiation Protection personnel, in order to meet current Nuclear Industry challenges.

Covering a wide range of X-Ray and Gamma radiation detection, our DMC 3000 Electronic Dosimeter represents over 25 years of real-world electronic dosimetry experience, continually refined through customer feedback.

The unique, high contrast and backlit LCD display provides a clear indication of wearer's dose and ambient dose rate for deep dose equivalent. More importantly, multiple methods (audible, visual, and tactile) are utilized to alert the wearer of alarm conditions.

Best of all, the DMC 3000 provides all of this protection, for over 2500 hours of continuous use, with a single AAA battery.

Finally, Mirion Technologies provides users with additional tools for calibration, positive entry control, and remote monitoring.

Radiation Safety. **Perfected.**

The DMC 3000 features an enhanced communication protocol for reliable and secure data exchange and includes a compatibility mode for previous Mirion Technologies products including Access Control,



health physics
A Mirion Technologies Division

PHYSICAL CHARACTERISTICS

- Compliant with IEC 61526Ed. 3, ANSI 4220A
- Measurement and display:**
 - X and gamma energy range: 15 keV to 7 MeV
 - energy response better than $\pm 20\%$ (typically $\pm 10\%$)
- Accuracy Hp(10):**
 - $< \pm 10\% \cdot (^{137}\text{Cs}, \sim 24 \text{ mSv/h}) \leq \pm 10\% \cdot ^{241}\text{Am}, \leq \pm 19\% \cdot 16\text{keV}$ (*including $\pm 5\%$ extended uncertainty $K=2$)
- Display units:** mSv, μSv , or mrem
- Display dose:** 1 μSv to 10 Sv (0.1 mrem to 1000 rem)
- Display rate:** 0.01 mSv/h to 10 Sv/h (0.1 mrem/h to 1000 rem/h) or 0.001 mSv/h to 10 Sv/h (extended option)
- Measurement range:** 0.1 $\mu\text{Sv/h}$ to 10 Sv/h (0.1 mrem/h to 1000 rem/h)
- Dose Rate Linearity:**
 - $< \pm 20\%$ up to 10 Sv/h (1000 rem/h) (Co and X H30 20 keV)
 - $< \pm 20\%$ up to 6 Sv/h (600 rem/h) (Pulsed X-rays 20 ms width, 1, 10 & 20 pps)
- Saturation indication above 10 Sv/h

ELECTRICAL CHARACTERISTICS

- Standard AAA (LR03) 1.5V Alkaline battery,
- 9 calendar month battery life (typical, 8 h per day, 5 days per week in run mode, without excessive alarms*
- 2500 h battery life in continuous run, without excessive alarm *
*0.2% of the time in alarm

MECHANICAL CHARACTERISTICS

- Rugged, high impact polycarbonate-ABS case
- Dimensions: 86 x 56 x 21 mm (3.4 x 2.2 x 0.8 in) without clip
- Weight with alkaline battery and clip: < 84 g (2.9 oz)
- Worn by a replaceable clips (2 different style back clips or one a front-facing clip for DMC worn inside the pocket)

ENVIRONMENTAL CHARACTERISTICS

- Temperature range: -10°C to 50°C (14°F to 122°F): deviation in response less than $\pm 5\%$
- Humidity: < 90 % at 42°C (108°F)
- Storage: -20°C to 71°C (-4°F to 160°F)
- Shock, vibration and drop resistant (1.5 meters on concrete),
- Waterproof IP67 1m (39 in) / 1 hour
- EMC: complies and exceeds standards by a large margin (CE compliant, certificate number: 153720)
- MIL STD 461F RS103 (pulsed electric field): exceeds 200V/m from 30 kHz to 5 GHz
- MIL STD 461F RS101 (magnetic field 30 Hz - 100 kHz)
- Factory calibration approved under ISO/CEI 17025

Histogram Features

- Histograms are saved to non-volatile memory (EEPROM) workers dose, 1 μSv (0.1 mrem) resolution stored in increments of 10 s, 1 min, 10 min or 24 h
- Event log (alarms, faults, changes) marks events during the selected time periods
- Stores data for several consecutive workers entries and exits (more than 1000 steps)

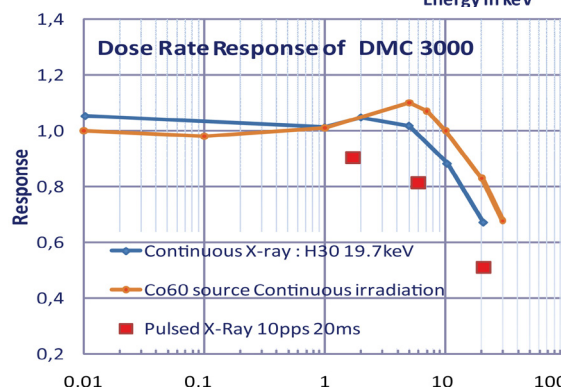
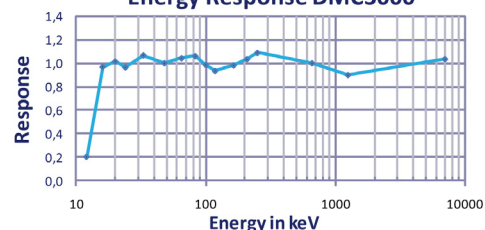
Display Features

- Large LCD display with high quality white backlighting
- 8 alpha-numeric digit display for full name display (scrolling) and fix dose/rate display format
- 3 top LED for Alarming (Red), gamma counting (Green) and Hp(0.07) or Neutron counting (Blue)
- Two push buttons for an easy customized dosimetry and personal information display

Alarm Features

- Dual tone alarming speaker with level > 85 dB (A) peak at 30 cm, frequency < 4800 Hz
- Tactile alarm (vibrator)
- High efficiency red flash LED on front
- Top LED and display indicators
- 2 dose/rate alarms, adjustable over the display range
- 2 dose/rate pre-alarms, adjustable over the display range and acknowledgeable
- Remaining time before alarm and run time alarms
- Alarm on battery removal
- Hands free communication 125 kHz frequency
- Range of communication with LDM 220: 20 cm
- Backward compatibility with existing readers (LDM 2000, LDM 220)

Energy Response DMC3000



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