



## FEATURES

- Loud Alarm, 85 dB (A)
- 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, Turnstiles and Telemetry infrastructure.*

health physics

A Mirion Technologies Division



## PHYSICAL CHARACTERISTICS

- Compliant with IEC 61526Ed. 3, ANSI 42.20(\*)  
(\*) isotropy <sup>241</sup>Am and <sup>137</sup>Cs with  $\pm 75^\circ$  angle
- **Measurement and display:**
  - X and gamma energy range: 15 keV to 7 MeV
  - energy response better than  $\pm 20\%$  (typically  $\pm 10\%$ ) from 16 keV to 7 MeV
- **Accuracy Hp(10):**  
 $< \pm 10\%*$  (<sup>137</sup>Cs,  $\sim 24$  mSv/h)  $\leq \pm 10\%*$ , <sup>241</sup>Am,  
 $\leq \pm 19\%**$  X-ray 16keV  
 (\*including  $\pm 5\%$  extended uncertainty K=2) ;  
 (\*\* including  $\pm 9\%$  extended uncertainty K=2)
- **Display units:** mSv,  $\mu$ Sv, or mrem
- **Display dose:** 1  $\mu$ Sv to 10 Sv (0.1 mrem to 1000 rem)
- **Display rate:** 0.01 mSv/h to 10 Sv/h (1 mrem/h to 1000 rem/h) or 0.001 mSv/h to 10 Sv/h (extended option)
- **Measurement range:** 0.1  $\mu$ Sv/h to 10 Sv/h (0.01 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) during 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



**MIRION**  
TECHNOLOGIES

Health Physics  
Division

Mirion Technologies (MGPI) Inc  
5000 Highlands Parkway  
Suite 150  
Smyrna Georgia 30082  
USA  
T +1.770.432.2744  
F +1.770.432.9179

Mirion Technologies (MGPI) SA  
BP 1  
F-13113 Lamanon  
France  
T +33 (0) 4 90 59 59 59  
F +33 (0) 4 90 59 55 18

Mirion Technologies (RADOS) Oy  
P.O. Box 506  
FIN-20101 Turku  
Finland  
T +358 2 468 4600  
F +358 2 468 4601

Mirion Technologies (RADOS) GmbH  
Ruhrrstrasse 49  
DE-22761 Hamburg  
Germany  
T +49 (0) 40 851 93-0  
F +49 (0) 40 851 93 256

Mirion Technologies Shanghai Branch  
Room 801, 78 Jiangchang  
San Lu, Zhabei-District  
Shanghai 200436  
China  
T +86 21 6180 6920  
F +86 21 6180 6924

## Histogram Features

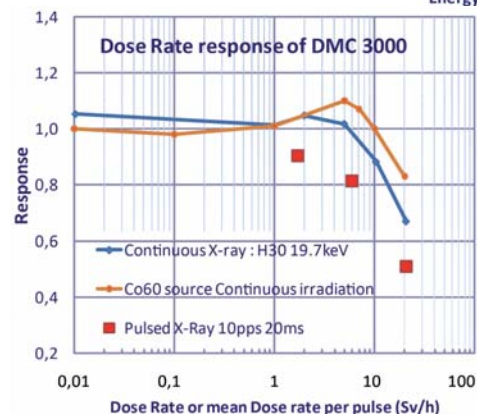
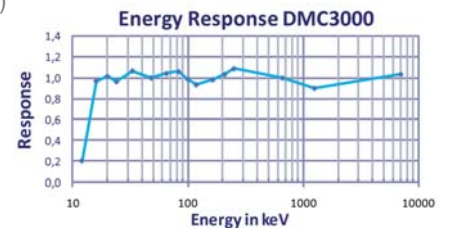
- Histograms are saved to non-volatile memory (EEPROM) workers dose, 1 $\mu$ Sv (0.1 mrem) resolution stored in increments of 10 s, 1 min, 10 min, 1 h or 24 h
- Event log (alarms, faults, changes) marks events during the selected time periods
- Stores data for several consecutive workers entries and 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 of 85 dB (A) typical at 30 cm, frequency < 4800 Hz
- Tactile alarm (vibrator)
- High efficiency red flash LED on front
- 3 Top LEDs' 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: 10 cm (3.9 in)
- Backward compatibility with existing readers (LDM 2000, LDM 220)



www.mirion.com  
151199EN-B