



FEATURES

The DMC 2000GN is a gamma and neutron detection dosimeter featuring dose rate and programmable alarms. The DMC 2000GN is user friendly, lightweight and waterproof.

- Full neutron energy range coverage
- Very good gamma rejection in neutron channel
- Audible and visual alarms
- Very large autonomy
- Hand free communication, pass-by exchange
- Fully compatible with DMC 2000 hand free readers and dosimetry software

DMC 2000GN Personal Electronic Dosimeter

The DMC 2000GN takes advantage of a unique licensed neutron detection technology based on a large single diode. The full energy range of thermal, intermediate and high energy neutrons is covered with a high sensitivity and very good gamma rejection, tested up to 6 MeV.

In addition, the gamma detection technology, identical to the proven solution of the DMC 2000S, allows to measure the gamma dose from 50 keV to over 6 MeV gamma range with a unique linearity to over 10 Sv/h.

RELATED PRODUCTS

MGP Instruments offers a range of products which can be used with the DMC 2000GN 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

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Featuring:



PHYSICAL CHARACTERISTICS

- Compliant to IEC 61526 Ed2 for gamma and neutron
- Display units: mSv, μ Sv or mrem
- **Neutron measurement:**
 - dose display: 1 μ Sv to 10 Sv (0.1 mrem to 1000 rem)
 - dose rate display: 0.1 mSv/h to 10 Sv/h
 - measurement range: 1 μ Sv/h to 10 Sv/h
 - energy range: 0.025 eV to 15 MeV
- **Gamma measurement:**
 - dose display: 1 μ Sv to 10 Sv (0.1 mrem to 1000 rem)
 - rate display: 10 μ Sv/h to 10 Sv/h (1 mrem/h to 1000 rem/h) or from 1 μ Sv/h / 0.1 mrem/h (extended option)
 - measurement range: 0.1 μ Sv/h to 10 Sv/h
 - energy range: 50 keV to 6 MeV
 - linearity:
 - $<\pm 20\%$ up to 1 Sv/h (100 rem/h)
 - $<\pm 30\%$ up to 10 Sv/h (1000 rem/h)
 - accuracy: $<10\%$ (^{137}Cs , ~ 25 mSv/h, including $\pm 5\%$ of extended uncertainty $K=2$)

ELECTRICAL CHARACTERISTICS

- Standard calculator battery LiMnO₂ CR2450
- Autonomy: 9 months typical (8h per day in run mode)

MECHANICAL CHARACTERISTICS

- Dimensions:
 - 87 x 48 x 31 mm (3.4 x 1.9 x 1.2 in) with clip
 - 87 x 48 x 21 mm (3.4 x 1.9 x 0.8 in) without clip
- Weight: 80 g (2.8 oz) with battery



Front view



Rear view with the clip

ENVIRONMENTAL CHARACTERISTICS

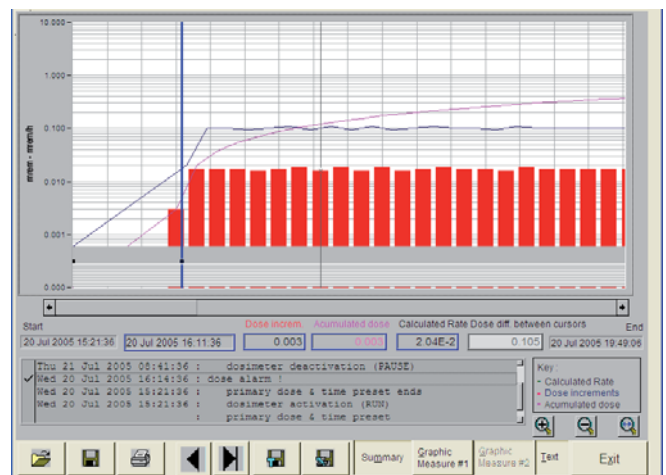
- Temperature range: -10°C to 50°C (14°F to 122°F)
- Humidity: $< 90\%$ at 42°C (108°F)
- Storage: -30°C to 71°C (-22°F to 160°F)
- Shock, vibration and drop resistant
- Waterproof IP67



Neutron dose display



Neutron dose rate display



The histogram enables neutron and gamma doses, events, to be reconstructed in detail (3800 steps of 10 s, 1 min, 10 min, 1 h or 24 h). Radiological supervisors can then analyze the data surrounding an incident.

All parameters change (alarm threshold, calibration factors, ...) are memorized in the histogram.

Histogram available with DOSIMASS software



MIRION
TECHNOLOGIES

Health Physics
Division

www.mirion.com
144272EN-C

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
Ruhrstrasse 49
DE-22761 Hamburg
Germany
T +49 (0) 40 851 93-0
F +49 (0) 40 851 93 256