



DMC 2000GN

Personal Electronic Dosimeter



Nuclear
Power



Homeland
Security
& Defense



Industrial and
Manufacturing



Healthcare



Labs and
Education

OVERVIEW

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

KEY 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

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 , \sim 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

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

> CHINA - SHANGHAI

T: +86 21 6180 6920 | E: info-cn@mirion.com

> FINLAND - TURKU

T: +358 2 4684 600 | E: info-fi@mirion.com

> FRANCE - LAMANON

T: +33 (0) 4 90 59 59 59 | E: info-fr@mirion.com

> GERMANY - HAMBURG

T: +49 40 85193 0 | E: info-de@mirion.com

> USA - SMYRNA, GEORGIA

T: +1 770 432 2744 | E: info-us@mirion.com

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