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Radiological Response Kits

AT Rad Kit 1 - Electronic Dosimeters & Inspector Survey Meter
Containing our 2 best sellers, the MGP Electronic Dosimeter with the SE Inspector Survey Meter

MGP – DMC 2000 S Electronic Dosimeter's
X-Ray and gamma: 60 keV to 6 Mev

HP (10) deep dose equivalent

Operational dosimetry for personnel working with ionizing radiations sources, including:

- Commercial Nuclear Stations
- Medical & Research labs
- Fuel Processing plants
- Non-destructive testing
- Military applications
- Civil Defense

Inspector Survey Meter

Detects: Alpha, Beta, Gamma & X-ray

- Small handheld microprocessor based
- Digital readout
- Halogen-quenched uncompensated GM tube with thin mica window.
- Effective diameter of window is 45 mm (1.75 in)
- Radiation symbol on front label marks the center of detector.



Dosimeter shown with holder attached to belt which allows viewing of readouts

Kit Specifications

- Dimensions: 13" x 10" x 4.5 "
- Weight: 6 lbs. (includes everything in picture)
- Waterproof
- Rugged



AT Rad Kit 1 - ED's & Inspector

Pelican carrying case

2 – Electronic Dosimeters & holders for attaching to belt or lanyard

1 – Inspector Survey Meter & Carrying case

Extra Batteries & Operating Manuals

These kits can be ordered with any amount of Electronic Dosimeters and types, or with any other Survey meter of choice.

The LDM 101 reader provides interface between the DMC family of dosimeters and Dosimass software (computer). The reader is used to calibrate, configure, activate, troubleshoot and diagnose. As well, the reader allows analysis of a dosimeter internal dose/dose rate data (Histogram)

We accept Visa, MasterCard and American Express

Electronic Dosimeter Physical characteristics

- Conforms with IEC 1283, ANSI 42 20A
- **Display units:** uSv,mrem or cGy
- **Measurement Range:**
- **Dose:** 1uSv to 10Sv (.1 mrem to 1000 rem)
- **Rate:** .1 uSv/h to 10Sv/h (.01 mrem/h to 1000 rem/h)
- **Display:** .01 mSv/h to 1 Sv/h; 1 mrem/h to 1000 rem/h)
- **Linearity**
- <+- 10% up to 1 Sv/h (100 rem/h)
- <+- 25% up to 10 Sv/h (1000 mrem/h)
- **Energy Response**
- Detects from 60 keV to 6 MeV
- **Accuracy**
- < +- 5% (Cs 137, .2 mSv/h; 20 mrem/h)

Electrical Characteristics

- LiMnO₂, CR2450 battery, one year battery life

Environmental Characteristics

- **Temp:** -10C to +50C (14F to 122F)
- **Humidity:** <90% at 42C (108F)
- **Storage:** -30C to +71C (-22F to 160F)
- **Shock:** vibrations and drop resistant
- **EMF:** conforms with and exceeds CE standards
- Water proof

Customization

- Setup can be accessed by authorized users with Dosimass software (LDM 101)

Options, accessories

- AM/WRM Interface
- CTM 2000: Compact transmitter
- PEA-100 (Pocket External Alarm)



We can supply a complete line of products which can be used with the family of DMC 2000 electronic dosimeters to create integrated dosimetry systems.

Inspector - Survey Meter Physical characteristics

Display: 4 digit liquid crystal display with indicators.

Averaging periods: Display will update every 3 seconds. At low background levels, the update is the moving average for the past 30 second time period. Timed period for moving average decreases as the radiation level increases.

Operating Range:

mR/hr - .001 (1µR) to 100 mR/hr

µSv/hr - .01 to 1000

CPM - 0 to 300,000

CPS - 0 to 5000

Total/ Timer - 1 to 9,999,000 counts

Accuracy:

mR/hr ± 15% from 0 to 30 mR/hr.

mR/hr ± 20% from 30 to 50 mR/hr.

CPM ± 15% from 0 to 100,000 CPM.

CPM ± 20% from 100,000 to 300,000 CPM.

(Referenced to Cs-137)

Sensitivity to Common Isotopes: Typical GM tube efficiency for 4 pi geometry at contact.

Beta Isotopes	Energy	Efficiency
C-14	49 keV Avg. 156 keV	5.3%
Bi-210	390 keV Avg. 1.2 MeV Max.	32%
Sr(Y)-90	546 keV and 2.3 MeV	38%
P-32	693 keV Avg. 1.7 MeV max.	33%
Alpha		
Am-241	5.5 MeV	18%

Utility Menu: The Utility Menu offers several options accessible by holding down the + button while turning the instrument on.



Gamma Sensitivity: 3500 CPM/mR/hr referenced to Cs-137. Smallest detectable level for I-125 is .02 µCi at contact.

Timer: Can set 1 minute sampling periods from 1 to 10 minutes. 10 minute sampling periods 10- 60 minutes. 1 hour sampling periods from 1 to 24 hours.

Count Light: Red LED flashes with each radiation event.

Audio Indicator: Internally mounted beeper (can be switched off for silent operation).

Outputs: Dual miniature jack drives CMOS or TTL devices: count to computer or datalogger. Submini jack input allows for electronic calibration.

Anti-Saturation: Meter will hold at full scale in fields as high as 100 times the maximum reading.

Power Requirements: One 9 volt alkaline battery. Battery life is min. 200 hours at normal background radiation levels.

Temperature Range: -10°C to 50°C (14°F to 122°F).

Weight: 301.4 grams (10.6 oz.) without battery. Inspector EXP: 1 lb. 15.6 oz. (420g).

Size: 150 x 80 x 30 mm (5.9 x 3.3 x 1.2 in.).

Contact Arrow-Tech, Inc. for more information on our radiation products

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