

Model 23-1 mSv Electronic Personal Dosimeter



Introduction

Part No. 51-2961

The Model 23-1 mSv Electronic Personal Dosimeter is a compact and lightweight (55.9 g / 2 oz) pen-type personal dosimeter. It is ideal for the measurement and general monitoring of gamma and X-ray radiation in medical and laboratory environments, as well as any controlled or restricted area where personal radiation monitoring is required or desired. The unit is sensitive to a wide range of energies from 35 keV to 3 MeV. Dose, Dose Rate, and alarm values are easily seen on the four-digit LCD screen. An audible alarm is activated

if the dose or dose rate exceeds the pre-set value of the dosimeter. The alarm set points are adjustable from the face of the EPD unit.

Warning: this dosimeter may not measure pulsed radiation accurately. For users with multiple EPD units the optional Model 23-1 Reader/Software Kit can be used to quickly take data directly from the dosimeter via infrared communication to the user's PC. The software also allows the user to set or change alarm set points quickly.

Specifications

- INDICATED USE:** dosimetry monitoring of personnel
- DOSE AND DOSE RATE MEASUREMENT DISPLAY RANGE:**
 - 0.001 mSv to 999.9 mSv
 - 0.001 mSv/h to 999.9 mSv/hAccumulated dose data is automatically deleted when Model 23 EPD is switched 'On'.
- DETECTOR:** silicon semiconductor
- RADIATION MEASURED:** gamma and X-ray (55keV to 3MeV. Will detect down to 35keV)
- DISPLAY:** 4-digit liquid crystal display, with dose rate, low battery, overflow
- ACCURACY/LINEARITY:**
 - +/- 10% from 0.01 to 999.9 mSv;
- ALARM OUTPUT:** low, medium, high user-settable volume, and OFF
- ALARM VOLUME:** approximately 60 dB
- SENSITIVITY:** approximately 2 cpm/ μ Sv/h (137 Cs gamma)
- DATA LOGGING:** 600 records (optional IR reader required for data trans to PC)
- ENVIRONMENT:** -10 to 40 °C (14 to 104 °F); \leq 90% relative humidity (non-condensing)
- POWER:** one each coin-type lithium battery (CR2450) Part Number 21-8639
- BATTERY LIFE:** typically one month at eight hours per day in non-alarm status
- SIZE:** 110 x 30 x 12 mm (4.3 x 1.8 x 0.5 in.) (H x W x D) without clip
- WEIGHT:** 55.9 g (2 oz.)



IR Reader for Model 23-1
Part No. 51-2959

Option: The IR Reader, shown above, allows the user to grab collected radiation dose information and send the data to a PC. Included software allows the data to be placed into a retrievable file. Simple display and alarm changes on the dosimeter are also enabled. Part Number 51-2959