

Model 9DP

Pressurized Ion Chamber



FEATURES

- 0-50 mSv/h (0-5 R/hr) Range with μ R/hr Sensitivity
- Sunlight Readable Color Display
- Auto Zeroing & Ranging
- Rechargeable Batteries
- Alarming Capability
- Simultaneous Rate and Integrate or Peak Hold Readouts
- Data Logging
- USB Connectivity
- Free Firmware Updates through Internet

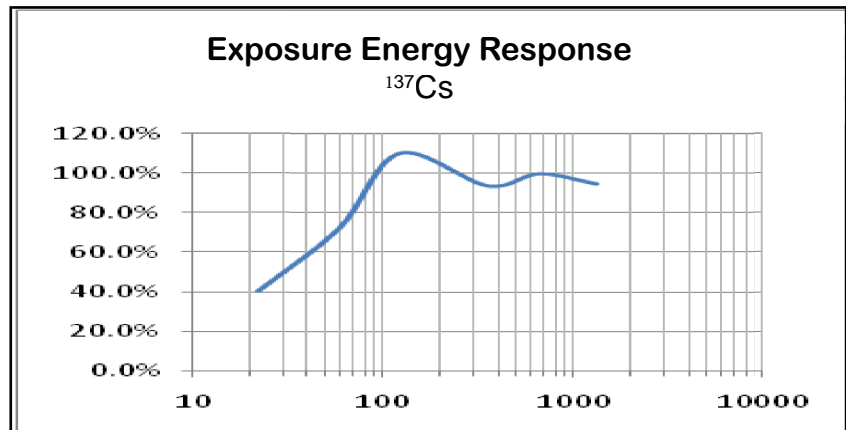
INTRODUCTION

The Ludlum Model 9DP, pressurized ion chamber meter, provides highly sensitive measurements of exposure or dose. It can simultaneously display the rate and either integrated value or highest rate (peak) seen by the instrument. The integrated value or peakrate can be reset using one of the four convenient front panel mounted buttons.

The stunning 256 color, bit-mapped display provides an optimized presentation of the data and is accompanied with icons informing the user of the active functions and instrument status. All logged data can be written in csv format to a standard USB thumb drive for convenient retrieval by a PC spreadsheet or database program. Alarms are manifested using color changes on the display and an acknowledgeable audio output.

The Model 9DP is part of Ludlum's new Dimension series of meters employing state-of-the-art technologies that deliver tremendous capability, user-friendliness, and convenient PC connectivity. Instrument users have access to personal preference type settings by connecting directly to any USB keyboard. Ludlum also sells a Dimension Interface Package that facilitates complete setup and calibration programming under administrator controlled password protection.





SPECIFICATIONS

RADIATION DETECTED: beta above 1 MeV; gamma & X-rays above 25 keV
OPERATING RANGES: with Sv/h units: 0–5 μ Sv/h, 0–50 μ Sv/h, 0–500 μ Sv/h, 0–5 mSv/h, 0–50 mSv/h
 with R/hr units: 0–500 μ R/hr, 0–5 mR/hr, 0–50 mR/hr, 0–500 mR /hr, 0–5 R/hr
CHAMBER VOLUME: 230 cc volume pressurized to 8 atmospheres (117 psi)
ACCURACY: +/- 10%
RESPONSE TIME: from five seconds in lowest range to under two seconds in highest range when measuring from 10% to 90% of final value
GEOTROPISM: < 1%
MEASUREMENT READOUTS: simultaneous display of rate and either the integrated value or highest rate (peak)
MINIMUM READOUT: 0.01 μ Sv/h, 0.1 μ R/hr
LCD DISPLAY: 8.9 cm (3.5 in.) diagonal, 240 H x 320 W pixels, TFT active matrix, 262 colors, 220 cd/m²
USER CONTROLS: 4 push buttons: Instrument on/off, Function (for peak rate/integrate modes), Audio on/off, and Asterisk (for alarm acknowledge/ meter reset/clearing integrated dose or peak rate)
AUTOMATIC FUNCTIONS: auto ranging, auto zeroing, auto LCD backlighting
DATA LOGGING: Stored to detachable USB thumb drive in csv format for easy retrieval by PC spreadsheet/database programs. Data points include date and time with dose rate, integrated dose, and instrument status. Logging time intervals are set by PC interface program.
AUDIO OUTPUTS: built-in unimorph speaker > 60 dB at 0.6 m (2 ft), optional audio jack available for connection to external (optional) headset
ALARMS: Two levels of radiation alarms available, each are user programmable throughout entire readout range. Other alarms include low battery and various detector failures.
USB INTERFACE: single USB port, connects directly to a USB keyboard to facilitate password-protected parameter changes, accepts USB thumbdrive for storing logged data, or to an optional Dimension Interface Package (# 4293-763) that facilitates PC parameter editing and calibration
TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F)
WARM UP TIME: < 1 minute when the instrument is in temperature equilibrium with the surrounding environment
DRIFT: < 0.3 μ Sv/h (0.03 mR/hr)
HUMIDITY: 0-100% non-condensing
POWER: eight rechargeable AA NiMH batteries, supplied with wall charger for direct connection to instrument
BATTERY LIFE: \approx 12 to 30 hours between charges depending primarily upon use of backlighting and USB usage
CONSTRUCTION: durable plastic accompanied by internal metal frame support
SIZE: 21.9 x 11.6 x 24.5 cm (8.6 x 4.6 x 9.6 in.) (H x W x L)
WEIGHT: 1.5 kg (3.4 lb), including batteries

OPTIONS

Dimension Interface Package: PN: 4293-763
 Audio Jack Output: PN: 4293-891
 Alkaline Battery Pack: PN: 4543-028
 Check Source, 10 μ Ci ¹³⁷Cs: PN: 01-5231
 Carrying Case: PN: 2310330

