

Model 9DP

Pressurized Ion Chamber



Ludlum Measurements, Inc.

FEATURES

- 0-5 R/hr Range with uR/hr Sensitivity
- Sunlight Readable Color Display
- Auto Zeroing & Ranging
- Rechargeable Batteries
- Alarming Capability
- Rate, Integrate & Peak Hold Readouts
- Data Logging
- USB Connectivity
- Free Firmware Updates through Internet



Part No.: 48-3742

INTRODUCTION

The Ludlum Model 9DP, pressurized ion chamber meter, provides highly sensitive measurements of exposure and exposure rate. It can simultaneously display the exposure rate, integrated value and highest rate seen by the instrument. The integrated value can be reset (if desired) 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 are written in csv format to a plugged-in industry 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 via a free Dimension PC interface program. Ludlum also sells a more powerful version of the interface program that additionally sets administrator parameters and performs calibration.

SPECIFICATIONS

RADIATION DETECTED: beta above 1 MeV; gamma & X-rays above 25 keV

OPERATING RANGES: with Sv/h units: 0-5 uSv/h, 0-50 uSv/h, 0-500 uSv/h, 0-5 mSv/h, 0-50 mSv/h
with R/h units: 0-500 uR/h, 0-5 mR/h, 0-50 mR/h, 0-500 mR/h, 0-5 R/h

CHAMBER VOLUME: 230 cc pressurized to 125 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

MEASUREMENT READOUTS: simultaneous display of dose rate, integrated dose, and highest dose rate (peak hold)

DATA LOGGING: Stored to detachable USB thumb drive in csv format for easy retrieval by PC spreadsheet/database programs. Data points include real-time clock generated date and time with dose rate, integrated dose, and instrument status. Logging time intervals are set by PC interface program.

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, peak rate/integrate mode, audio on/off, alarm acknowledge/meter reset/clearing integrated dose or peak rate

AUTOMATIC FUNCTIONS: auto ranging, auto zeroing, auto LCD backlighting

AUDIO OUTPUTS: built-in unimorph speaker, > 60 dB at 0.6 m (2 ft), audio jack for connection to optional headset

ALARMS: Two levels of radiation alarms available, each are user programmable throughout entire readout range and set through a PC interface program. Other alarms include low battery and various detector failures.

TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F)

POWER: eight rechargeable AA NiMH batteries, supplied with wall charger for direct connection to instrument

BATTERY LIFE: ≈ 12 to 24 hours between charges depending upon use of backlighting

PC INTERFACE: USB, free PC Windows™ interface program downloaded from www.ludlums.com, a more comprehensive Dimension Interface Package (PN: 4293-763) that additionally facilitates calibration and administrative control is sold as an option.

CONSTRUCTION: durable plastic with metal 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)