Model 9DP
Pressurized Ion Chamber

Ludlum Measurements, Inc.

FEATURES

- **0-50 mSv/h (0–5 R/hr) Range with µR/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 (peak) 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 acknowledgable 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 uSv/h, 0-50 µSv/h, 0–500 µSv/h, 0–5 mSv/h, 0–50 mSv/h
with R/h units: 0–500 µR/h, 0–5 mR/h, 0–50 mR/h, 0–500 mR /h, 0–5 R/h
CHAMBER VOLUME: 230 cc volume pressurized to 7.96 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
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, 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
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.
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 30 hours between charges depending upon use of backlighting
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
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 (3.38 lb), including batteries

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