

# Model 9-4 Air Ionization Survey Meter



Ludlum Measurements, Inc.

## Features

- 5-Range Ion Chamber
- Ranges: 0–500 mSv/h (0–50,000 mR/hr)
- 1000 mg/cm<sup>2</sup> Retractable Beta Shield
- PC-Controlled Calibration
- Low-Battery Warning
- High-Background Zero Capability
- Automatic Temperature & Pressure Compensation
- Adjustable Shoulder Strap Included



## Specifications

Part No. 48-3739

(handle and shoulder strap removed for clarity)

### DETECTOR

**RANGE:** 0–500 mSv/h (0–50,000 mR/hr)

**LINEARITY:** reading within 10% of true value

**ENERGY RESPONSE:** within 20% of true value from 40 keV to 2 MeV

**RESPONSE TIME:** approximately 5 seconds for 90% of final meter deflection on the x1 and x10 scales, and three seconds on the x100, x1k, and x10k scales

**CHAMBER VOLUME:** 220 cm<sup>3</sup> (13.4 in<sup>3</sup>)

**WINDOW:** 7 mg/cm<sup>2</sup> metalized polyester; with slide open, allows gamma detection to 6 keV

**WINDOW AREA:** 40 cm<sup>2</sup> (6.2 in<sup>2</sup>) (31.5 cm<sup>2</sup> [4.9 in<sup>2</sup>] open with optional 79% open screen)

**CHAMBER CONSTRUCTION:** carbon coated acrylic

**BETA SHIELD:** retractable 1000 mg/cm<sup>2</sup> phenolic slide with side button control

**SIDE WALL:** 1000 mg/cm<sup>2</sup> aluminum and acrylic

### INSTRUMENT CONTROLS

**ZERO ADJUST:** one-turn potentiometer to zero reading

**LIGHT:** toggles a white LED display light On/Off

**BAT TEST:** pushbutton used to check battery capacity

**RESET:** causes chamber discharge to re-establish a current reading

**RANGE SELECTION:** instrument Off, plus x10k, x1k, x100, x10, and x1

**CALIBRATION:** digitally set via USB to serial computer interface, stored in non-volatile memory

### METER

**METER:** 6.4 cm (2.5 in.) arc, 1 mA, pivot-and-jewel suspension

**METER DIAL:** 0–5 mR/hr, BAT TEST (others available)

**POWER:** 2 each “D” cell batteries housed in a sealed externally-accessible compartment

**BATTERY LIFE:** 400 hours

**CONSTRUCTION:** cast and drawn aluminum with beige powder coating

**TEMPERATURE RANGE:** -20 to 50 °C (-4 to 122 °F), temperature compensation maintains calibration within 15% of 25 °C (77 °F) reading

**SIZE:** 23.4 x 8.9 x 21.6 cm (9.2 x 3.5 x 8.5 in.) (H x W x L) including instrument handle

**WEIGHT:** 1.9 kg (4.2 lb) including batteries



rear view showing the retractable beta shield