

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/cm² 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 cm³ (13.4 in³)

WINDOW: 7 mg/cm² metalized polyester; with slide open, allows gamma detection to 6 keV

WINDOW AREA: 40 cm² (6.2 in²) (31.5 cm² [4.9 in²] open with optional 79% open screen)

CHAMBER CONSTRUCTION: carbon coated acrylic

BETA SHIELD: retractable 1000 mg/cm² phenolic slide with side button control

SIDE WALL: 1000 mg/cm² 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 tion 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

