

# Model 9-3 Ion Chamber Survey Meter



Ludlum Measurements, Inc.

## Features

- Five Range Ion Chamber
- 1000 mg/cm<sup>2</sup> Retractable Beta Shield
- Low Battery Warning
- High Background Zero Capability
- Audio Proportional to Reading
- Rugged Construction
- Adjustable Shoulder Strap Included



Model 9-3 Ion Chamber  
Part Number: 48-3633  
(shoulder strap not shown)  
Below: Retractable Beta Shield

## Specifications

### DETECTOR

**RANGE:** typically 0.2–50000 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 2 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

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

### INSTRUMENT CONTROLS

**ZERO ADJUST:** allows limited background subtract, and also used to compensate for electrometer drift

**AUDIO:** On/Off; when On, click rate relates to meter reading

**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 CONTROLS:** individual potentiometers for each range

### 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)

**AUDIO:** built-in unimorph speaker with ON/OFF switch

**POWER:** 2 each "AA" cell batteries housed in a sealed externally-accessible compartment

**BATTERY LIFE:** x100 and higher ranges at full scale without display light, 1050 hours; at x 1 and x10 in low background without display light, 1500 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 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:** 1.6 kg (3.6 lb) including batteries



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Note: specifications subject to change without notification. We are not responsible for errors or omissions.

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