

Model 9-3 Ion Chamber Survey Meter



Ludlum Measurements, Inc.

Features

- Five Range Ion Chamber
- 1000 mg/cm² 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
(shoulder strap not shown)
Below: Retractable Beta Shield

Specifications

Part Number: 48-3633

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 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

SIDE WALL: 1000 mg/cm² 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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