

Model 3 with 44-2 Micro-R-Meter

Radiation Detection for a Safer World



Ludlum Measurements, Inc.

Features

- Rugged Analog Ratemeter
- Sensitive 1 x 1 inch NaI(Tl) Detector
- Easy to Use
- Easy Reach to Difficult Places
- 2000 Hour Battery Life



Part Numbers: 48-1605 & 47-1532

Introduction

This instrument combines Ludlum's popular Model 3 Analog Survey Meter with a 2.5 x 2.5 cm (1 x 1 in.) NaI(Tl) gamma scintillator detector, Model 44-2, to create a very sensitive micro-R-meter. The advantage this instrument has over those with the detector housed inside the instrument enclosure is its ability to manipulate the detector into tight or difficult places. It has the additional benefit of keeping the meter conveniently in full view while performing an investigation. The design is very robust with a loud audio signal to facilitate noisy areas. This instrument comes supplied with a one meter (39 in.) cable and batteries.

Model 3 Survey Meter Specifications

METER DIAL: 0-500 kcpm, BAT TEST

METER: 6.4 cm (2.5 in.) arc, 1 mA analog type

CONTROLS:

1. Rotary Selector: switches between instrument off, battery check, ranges: x0.1, x1, x10, x100
2. Response Switch: toggles between FAST (4 seconds) or SLOW (22 seconds) from 10% to 90% of final reading
3. Reset Pushbutton: to zero meter
4. Audio Switch: for audio on/off, built-in unimorph speaker, greater than 60 dB at 0.6 meters (2 ft)
5. Calibration Controls: accessible from front of instrument (protective cover provided)

CONSTRUCTION: cast and drawn aluminum with beige powder coat

CONNECTOR: series "C"

TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F), may be certified for operation from -40 to 65 °C (-40 to 150 °F)

POWER: two each "D" cell batteries (housed in externally accessible sealed compartment)

BATTERY LIFE: typically greater than 2000 hours with alkaline batteries (battery condition can be checked on meter)

SIZE: 16.5 x 8.9 x 21.6 cm (6.5 x 3.5 x 8.5 in.) (H x W x L), including handle

WEIGHT: 1.6 kg (3.5 lb), including batteries

Model 44-2 Gamma Detector Specifications

DETECTOR TYPE: scintillator, 2.5 x 2.5 cm (1 x 1 in.) (Dia x L) thick NaI

SENSITIVITY: typically 175 cpm/μR/hr (¹³⁷Cs gamma)

BACKGROUND: 1900 cpm

RECOMMENDED ENERGY RANGE: 50 KeV-1.5 MeV

ENERGY RESPONSE: energy dependent

PHOTOMULTIPLIER TUBE: 2.86 cm (1.125 in.) diameter

OPERATING VOLTAGE: 500-1200 volts

CONNECTOR: series "C"

TEMPERATURE RANGE: -15 to 50 °C (5 to 122 °F), may be certified for -40 to 65 °C (-40 to 150 °F)

SIZE: 5.1 x 18.5 cm (2 x 7.3 in.) (Dia x L)

WEIGHT: 0.5 kg (1 lb)