

## Model 14C General Purpose Ratemeter

Part Number: 48-1611

### Features

- Low Price
- Rugged
- 5-Range Analog Ratemeter
- Operates Two Detectors
  - Built-in Internal GM Detector
  - External GM or Scintillator Detector

### Introduction

The Model 14C general purpose, handheld analog ratemeter supports operating two separate radiation detectors. This instrument is set for 900-volt GM tube operation and is typically used with an external, thin-wall GM tube or pancake GM. Other external detectors are compatible with the Model 14C, however. An internal energy-compensated, high-range detector is used for the x1000 range only. This detector is active

whenever the instrument is on and in a very high radiation field, and it will drive the meter needle to full scale, thus alerting the user. A switch allows the operator to select between the internally mounted GM detector with an exposure range of 0 to 20 mSv/h (0 to 2000 mR/hr) or an external GM or scintillator detector of choice



### Specifications

**APPLICATION:** alpha, beta, gamma survey

**COMPATIBLE DETECTORS:** GM, scintillation

**DETECTOR CHANNELS:** x0.1 through x100 range settings read out the external detector channel, x1000 reads out the internal GM detector

**EXTERNAL DETECTOR:** any GM or scintillator operating on 900 Vdc

**INTERNAL DETECTOR:** energy compensated GM, 0–20 mSv/h (0–2000 mR/hr), used with x1000 scale only

**ENERGY RESPONSE:** within 15% of true value between 60 keV–3 MeV (internal detector only)

**LINEARITY:** reading within 10% of true value with detector connected

**HIGH VOLTAGE:** 900 volts

**THRESHOLD:** -40 mV  $\pm$ 10 mV

**CONNECTOR:** series "C"

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

**METER DIAL:** typically 0–2 mR/hr and cpm, BAT TEST (others available)

**CONTROLS:**

Rotary Selector Switch: switches instrument to Off or ranges: x0.1, x1, x10, x100 x1000

Response Switch: toggles between FAST (4 seconds) or SLOW (22 seconds) from 10% to 90% of final reading

Reset Pushbutton: to zero meter

Battery Pushbutton: checks battery status

Audio Switch: audio on/off, built-in unimorph speaker, greater than 60 dB at 0.6 meters (2 ft)

**POWER:** 2 each "D" cell batteries (housed in an externally accessible sealed compartment)

**BATTERY LIFE:** typically greater than 2000 hrs (battery condition can be checked on meter); LOW BAT warning

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

**TEMPERATURE RANGE:** -20 to 50 °C (-4 to 122 °F)

**RELATIVE HUMIDITY:** < 95%

**SIZE:** 16.5 x 8.9 x 21.6 cm (6.5 x 3.5 x 8.5 in.) (H x W x D)

**WEIGHT:** 1.6 kg (3.5 lb), including batteries

### OPTIONS (others available)

- Check Source: Model L-01-5196
- Shoulder Strap: Model L-4363-413
- Carry/Store Case: Model L-2310278
- Lighted Handle: Model L-4464-154
- Portable Scaler Option: L-4464-114
- Headphone Modification: Model L-4464-464

Ludlum Measurements, Inc. P.O. Box 810, Sweetwater, Texas 79556

Web: ludlums.com Tel: 800-622-0828 / 325-235-5494 Fax: 325-235-4672 Email: sales@ludlums.com

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

Feb 2025