

Model 2363 with Model 42-41L Lightweight Neutron Dose System



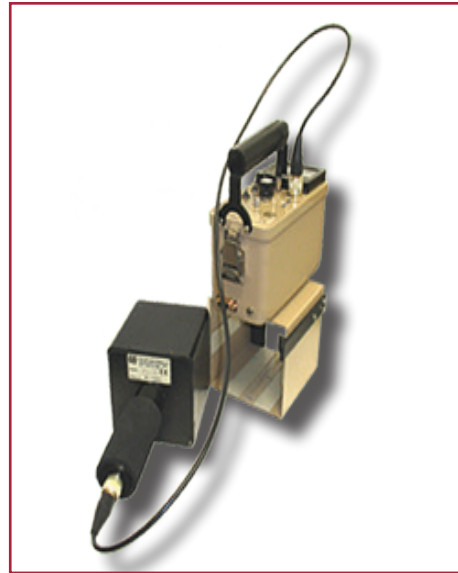
Ludlum Measurements, Inc.

Features

- Neutron Dose Rate & Under 4.5 kg (10 lb)
- Scaler & Data Logging Capabilities
- Neutron Detection Range: 0.1 mrem/hr to 1 Rem/hr
- Gamma Detection Range: 0.1 mR/hr to 1 R/hr
- Independent Gamma & Neutron Measurements



left: Model 42-41L
Neutron Detector



Specifications Model 2363

Part Number: 48-3514

INDICATED USE: gamma and neutron survey

RANGE: four linear range multiples of x0.1, x1, x10, and x100; used in combination with the 0-10 mrem/hr meter dial, providing an overall range of 0-1000 mrem/hr

SENSITIVITY (approximately): gamma:1000 cpm/mR/hr (internal detector); neutron: 350 cpm/mrem/hr (with Model 42-41L)

HIGH VOLTAGE: neutron adjustable from 500 to 1500 Vdc; gamma fixed at 550 Vdc

THRESHOLD: neutron adjustable from 5 to 100 mV; gamma fixed at 50 millivolts (mV)

ADJUSTABLE ALARMS (indicated by front panel LEDs): gamma, neutron, integrated dose

DATA LOGGER: capable of logging up to 1000 individual data points each with the following identifiers: gamma and neutron sample counts, sample number, date/time stamp, current integrated dose, 10-character location identifier (All data is stored in non-volatile memory, allowing batteries to be removed without loss of data.)

AUDIO: dual- or single-tone click-per-event through built-in speaker with adjustable volume located on the front panel; headset jack located on the instrument can

DATA OUTPUT: 9-pin RS-232 port for connection to PC for data download and adjustment of setup parameters. A one meter RS-232 to USB adapter cable is included. PC interface software is available for download on our website.

METER DIAL: 0 to 10 mrem/hr, BAT OK

DIGITAL DISPLAY: 6-digit LCD with 0.64 (0.25 in.) digits

SELECTOR SWITCH: toggle switch to select gamma+neutron, gamma only, or neutron only

RESET/READ ID: a two-position momentary action switch that may be moved to select RESET the meter, or toward the READ ID position to read the integrated dose on the digital display

RESPONSE: varies according to number of counts present, typically 2 to 11 seconds from 10 to 90% of final reading

TEMPERATURE RANGE:
Neutron: $\pm 30\%$ from 0 to 40 °C (32 to 104 °F) (PRESCILA)

Gamma: $\pm 10\%$ from -20 to 50 °C (-4 to 122 °F) (internal GM)

POWER: two standard "D" cell batteries; BATTERY LIFE: approximately 200 hours of operation with fresh batteries

Specifications Model 42-41L

DETECTOR: PRESCILA proton recoil scintillator for neutron survey and dose measurement

ANGULAR DEPENDENCE: within 15% over a wide range of energies

DROP RESISTANCE: survives 100g drops in three orientations

SIZE: 25.7 x 10.8 x 10.8 cm (10.125 x 4.25 x 4.25 in.) (H x W x L); WEIGHT: 2.2 kg (5 lb)

OVERALL SIZE including connector protrusion: without 42-41L: 19.6 x 8.9 x 21.1 cm (7.7 x 3.5 x 8.3 in.) (H x W x L)

with 42-41L: 32.3 x 13.7 x 34.3 cm (12.7 x 5.4 x 13.5 in.) (H x W x L)

WEIGHT including internal detector and batteries: without 42-41L 2.0 kg (4.5 lb) with 42-41L 4.2 kg (9.2 lb)

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

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