

Neutron Dose Ratemeter - Model 2241-4

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Specifications

Meter Specifications

DISPLAY: LCD with programmable backlight on time

POWER: two each "D" cell batteries

BATTERY LIFE: typically 200 hours

CONTROLS: off/ratemeter/dcaler three-position operation switch, audio on/off switch, fast/slow response switch, LCD backlight pushbutton, count reset pushbutton, and a scaler count pushbutton on the handle

AUDIO: built-in audio speaker with audio on/off switch, greater than 60 dB at 0.6 meters (2 ft)

SCALER TIME: adjustable from 1-999999 seconds, can display seconds or minutes

ALERT/ALARM: pre-programmed alarms for ratemeter and scaler modes

SIZE: 17.8 x 9.6 x 21.6 cm (7 x 3.8 x 8.5 in.) (H x W x L)

WEIGHT: 1.6 kg (3.6 lb)

RS-232: "D" type connector, used for programming instrument and outputting data at two-second intervals, baud rate from 150-19.2k bps

Detector Specifications

DETECTION RANGE: thermal to approximately 12 MeV

ENERGY RESPONSE: approximately follows the inverse of the radiation protection guide curve for neutron dose

DETECTOR: 2 Atm ³He tube LND 25185 or equivalent

MODERATOR: 22.9 cm (9 in.) diameter cadmium-loaded polyethylene sphere

SENSITIVITY: typically 100 cpm/mrem/hr (²⁴¹AmBe fast neutrons)

GAMMA REJECTION: typically 10 cpm or less through 100 mSv/hr (10 R/hr) (¹³⁷Cs)

OPERATING VOLTAGE: ≈1200 volts

THRESHOLD: -2 mV

CONNECTOR: series "C" (others available)

SIZE: 26.5 x 22.9 x 22.9 cm (10.3 x 9.0 x 9.0 in.) (H x W x D) including brackets

TEMPERATURE RANGE: -15 to 50 °C (5 to 122 °F)

WEIGHT: 6.6 kg (14.5 lb)

