

Innovative Industrial Solutions



I.I.S.

Ludlum 133-6



The Model 133 series of Geiger-Mueller (GM) gamma survey detectors can be used with any portable ratemeter, scaler instrument, or area monitor that provides the appropriate amount of voltage (see table below) with an input sensitivity of $30 \pm 10\text{mV}$. Model numbers of this detector with the “-1” on the end are waterproof versions. Waterproof versions have the same characteristics as nonwaterproof models, other than they are waterproof, contain an O-ring, and do not have a “C” connector on the probe end (base). A 25’ cable is hard-wired into the detector. They weigh slightly more and have a slightly larger diameter than the non-waterproof versions.

Features

- Energy Compensated GM
- Halogen Quenched
- Waterproof Versions Available
- Stainless Steel Tube

INPUT SENSITIVITY: $30\text{ mV} \pm 10\text{ mV}$

DEAD TIME: typically 50 microseconds

TUBE: 30 mg/cm^2 stainless steel (halogen quench)

GM CONNECTOR: series “C,” unless a waterproof detector. Other connectors are available upon request.

TEMPERATURE RANGE: -4 to 122°F , may be certified for operation from -40 to 150°F

SIZE: 0.88 in. OD x 4 in. L

WEIGHT: approximately 0.090 kg (0.20 lb)

Operating Voltage	550 Vdc
Sensitivity (^{137}Cs Gamma)	1.8 cpm/ $\mu\text{Sv/h}$ (18 cpm/mR/hr)
Linear Range without DTC	40 $\mu\text{Sv/h}$ to 60 mSv/h (4 mR/hr to 6 R/hr)
Linear Range with DTC	40 $\mu\text{Sv/h}$ to 400 mSv/h (4 mR/hr to 40 R/hr)
Linear Range with Series Correction Constant (SCC)	40 $\mu\text{Sv/h}$ to 10 Sv/h (4 mR/hr to 1000 R/hr)
Energy Response (60 keV to 3 MeV)	within 15%
Background (in 10 $\mu\text{R/hr}$)	1 cpm

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