

LUDLUM MEASUREMENTS, INC.

Model 133 Series Gamma Survey Detectors



Features

- Energy Compensated GM
- Halogen Quenched
- Waterproof Versions Available
- Stainless Steel Tube
- Range of Models to Suit Needs

Specifications

INPUT SENSITIVITY: 30 mV ± 10 mV
DEAD TIME: typically 50 microseconds
TUBE: 30 mg/cm² stainless steel (halogen quench) GM
CONNECTOR: series "C," unless a waterproof detector. Other connectors are available upon request.
TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F), may be certified for operation from -40 to 65 °C (-40 to 150 °F)
SIZE (Dia x L):
 -3, -4, -6, -7: 2.2 x 10.2 cm (0.88 x 4 in.)
 -2, -2-1, -3-1, -4-1, -6-1, -7-1: 2.5 x 10.2 cm (1 x 4 in.)
WEIGHT: approximately 0.090 kg (0.20 lb)
WATERPROOF VERSIONS: all Model 133-x-1 versions are submersible up to 30 m (100 ft); IP68 or better
OPTIONAL PROBE CLIP: included at no additional charge when meter and detector are purchased at the same time (PN 4285-018)

Introduction

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 ± 10mV.

Waterproof versions of these detectors (all 133-x-1 versions) have the same characteristics as non-waterproof models, other than they are waterproof, contain an O-ring, and do not have a "C" connector on the probe end (base). A 30-meter (100 foot) cable is hard-wired into the detector. They weigh slightly more and have a slightly larger diameter than the non-waterproof versions. They are submersible up to 30 m (100 ft).

Model (Part Number)	133-2 (47-1717) 133-2-1 (47-2450) [†]	133-3 (47-1314) 133-3-1 (47-4387) [†]	133-4 (47-1674) 133-4-1 (47-2451) [†]	133-6 (47-1718) 133-6-1 (47-2452) [†]	133-7 (47-1216) 133-7-1 (47-2453) [†]
Operating Voltage	550 Vdc	550 Vdc	550 Vdc	550 Vdc	460 Vdc
Sensitivity (¹³⁷Cs Gamma)	100 cpm / μSv/h (1000 cpm / mR/hr)	45 cpm / μSv/h (450 cpm / mR/hr)	10 cpm / μSv/h (100 cpm / mR/hr)	1.8 cpm / μSv/h (18 cpm / mR/hr)	0.42 cpm / μSv/h (4.2 cpm / mR/hr)
Linear Range without DTC*	1 μSv/h to 2 mSv/h (0.1 to 200 mR/hr)	1 μSv/h to 10 mSv/h (0.1 mR/hr to 1 R/hr)	10 μSv/h to 20 mSv/h (1 mR/hr to 2 R/hr)	40 μSv/h to 60 mSv/h (4 mR/hr to 6 R/hr)	250 μSv/h to 300 mSv/h (25 mR/hr to 30 R/hr)
Linear Range with DTC*	1 μSv/h to 10 mSv/h (0.1 mR/hr to 1 R/hr)	1 μSv/h to 50 mSv/h (0.1 mR/hr to 5 R/hr)	10 μSv/h to 100 mSv/h (1 mR/hr to 10 R/hr)	40 μSv/h to 400 mSv/h (4 mR/hr to 40 R/hr)	250 μSv/h to 1 Sv/h (25 mR/hr to 100 R/hr)
Linear Range with SCC**	1 μSv/h to 50 mSv/h (0.1 mR/hr to 5 R/hr)	1 μSv/h to 250 mSv/h (0.1 mR/hr to 25 R/hr)	10 μSv/h to 500 mSv/h (1 mR/hr to 50 R/hr)	40 μSv/h to 10 Sv/h (4 mR/hr to 1000 R/hr)	250 μSv/h to 10 Sv/h (25 mR/hr to 1000 R/hr)
Energy Response (60 keV to 3 MeV)	within 25%	within 25%	within 25%	within 25%	within 25%
Background (10 μR/hr field)	12 cpm	6 cpm	1 cpm	1 cpm or less	1 cpm

*DTC: Dead Time Correction, available on some instruments

†: Waterproof

**SCC: Series Correction Constant, available on some instruments

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

Web: <http://www.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.

Nov 2020

PEO B.V.

info@gotopeo.com
www.gotopeo.com

The Netherlands

Havenweg 16, 6603 AS Wijchen
+31 (0)24 648 86 88

Belgium

Watermolenstraat 2, B-2910 Essen
+32 (0)3 309 32 09

CoC 34107894

VAT NL807859151B01

IBAN NL29 RABO 0356 1960 46

BIC RABONL2U

