



DETECTION

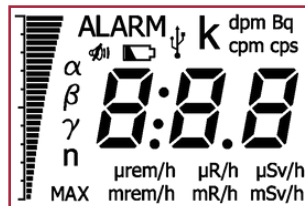
Model 35

Vehicle Radiation Monitor



Features

- Multiple Mountings (see Options Page)
- Powered by Connected Vehicle or by Internal Batteries
- Large Backlit Auto Ranging LCD with Adjustable Viewing Angle
- Simple Green, Yellow, and Red Status Lights
- 3-Button Intuitive Interface for Ease of Use
- USB Port and All-Digital Calibration



Introduction

The Ludlum Model 35 is a versatile, lightweight, vehicle-mounted instrument with an external detector used for alpha, beta, or gamma radiation survey. It remains unobtrusive until an alarm level is reached. When an alarm level is reached the monitor can be quickly removed from the mount for closer inspection. Three modes of operation – RATE, MAX, and COUNT – are available for the user. Measurements can be collected in two sets of units (primary and secondary) for RATE and MAX modes in cps, cpm, Bq, dpm, R/hr, rem, or Sv/h units. The user can switch between two sets of chosen units by simply pressing the Units button.

An internal switch is used to enable or disable the front-panel setup feature to protect desired settings from inadvertent modification. Setup is also available via software available from Ludlum Measurements.

The Model 35 features a large, easily-readable LCD (liquid crystal display), an audio warning tone, and easy, intuitive, user-friendly design. Splash-resistant construction allows it to be used outdoors. The unit body is made of lightweight, durable, high-impact plastic. It is shipped ready to use with batteries and calibration certificate.

Specifications

Part Number: 48-4112 (includes short ball mount stand, 1.5 m (5 ft) detector cable, and 12 V power cable)

COMPATIBLE DETECTORS: Geiger-Mueller (GM), scintillator, or proportional

LCD DISPLAY: 3 digit LCD with large 13.4 mm (0.53 in.) digits, (k)cps, (k)cpm, (k)Bq, (k)dpm, (μ)(m)R/h, (μ)(m)Sv/h, (μ)(m)mrem/h, low-battery indicator, MAX, ALARM, MUTE

DISPLAY RANGE: 0.0 cps to 99.9 kcps; 0.00 cpm to 999 kcpm; 0.00 Bq to 99.9 kBq; 0.00 dpm to 999 kdpm; 0.00 μR/h to 999 R/h; 0.00 μrem/h to 999 rem/h; 0.00 μSv/h to 999 Sv/h. Display range can be set to limit display to calibrated range

BACKLIGHT: Built-in ambient light sensor automatically activates low-power LED backlight, unless internal dipswitch is set to continuous-on (will reduce battery life). Alarm light intensity varies based on ambient light levels.

USER CONTROLS:

- ON/OFF/ACK - Long press to turn ON; Tap to acknowledge alarms and silence alarm tone; Press to reset Sigma Audio alarm; Turn "click" audio On/Off; Turn Sigma Audio beep On/Off; Hold for OFF
- MODE - Long press alternates between NORMAL (count rate), MAX (captures peak rate), and COUNT (user-selectable preset count time from 0 to 10 minutes). Number of modes can be reduced in setup.
- UNITS - Long press changes the units between count rate (cpm, cps), dose/exposure (μSv/h, mR/h), or disintegration (dpm, Bq)

RESPONSE TIME: User-selectable from 1 to 60 seconds, Auto-Response Rate FAST or SLOW, or Fixed FAST and SLOW

ALARMS: Count rate, exposure/dose, and scaler alarm setpoints adjustable over the display range

OVERLOAD: High count rate saturation protection prevents false display of lower count rates

ZERO PROTECTION: After a user-settable time interval (default 60 seconds) of no pulses from detector, the instrument will flash zero reading and the alarm audio will be triggered

DEAD TIME CORRECTION: Employs first and second order corrections for extended performance

HIGH VOLTAGE: 400 to 1500 Vdc

THRESHOLD: 2 to 200 mV

AUDIO: Greater than 75 dB at 0.6 (2 ft), approximately 4 kHz

CLICK AUDIO DIVIDE: x1, x10, x100, x1k

POWER: INTERNAL: Two alkaline or two rechargeable "AAA" batteries; EXTERNAL: 10 to 24 V through powered mount (does not charge batteries)

BATTERY LIFE: Approximately 100 hours of operation, 24-hour low battery warning

CONSTRUCTION: High-impact plastic with water-resistant rubber seals and separate battery compartment

TEMPERATURE RANGE: -20 to 50 °C (-5 to 122 °F), may be certified for operation from -40 to 65 °C (-40 to 150 °F)

ENVIRONMENTAL RATING: NEMA rating of 3x or IP rating of 52 with audio hole seal option (hole seal option will reduce maximum volume by approximately 10 dB)

SIZE: 8.5 x 8.0 x 4.8 cm (3.4 x 3.1 x 1.9 in.) (H x W x L); instrument only

WEIGHT: 174 g (0.38 lb); instrument only

OPTIONS: Stereo Audio Option: PN 4498-697; Audio Hole Seal Option: PN 4498-913; Lumic Calibration Software Kit: PN 4498-1020

Ludlum Measurements, Inc.