

Model 3006 Extended Reach Gamma & X-ray Survey Meter

Features:

- Very Sensitive Pole-Mounted Detector
- Large, Backlit, Easy-To-Read LCD Screen
- Auto-Ranging
- RATE, MAX, and COUNT Modes
- Splash-Resistant Construction for Outdoor Use
- All-Digital Calibration
- Lightweight Yet Rugged
- Simple 5-Button Interface

Introduction

The Model 3006 is a portable and versatile instrument with an extended reach detector used for gamma or x-ray radiation survey. A sensitive plastic scintillation detector is mounted at the end of a 118 cm (46.5 in.) pole for ease of use when surveying trucks, scrap metal, or other items/areas of concern. It features a large, easy-to-read LCD screen and audible alarms and is controlled using a simple five-button interface. The meter body is made of high-impact plastic and splash-resistant construction allows the instrument to be used outdoors.

Three modes of operation are available – RATE, MAX, and COUNT – which can be selected by pressing the MODE button. Measurements can be collected in two sets of units (primary and secondary) for RATE and MAX modes in cps, cpm, mR/h or μ Sv/h units. The user can switch between the two sets of units by pressing the UNITS button. A sigma audio mode can be enabled that allows the user to find small increases above the background radiation level. When enabled with the optional Lumatic Data Logger Kit (PN: 4498-1019), data can be logged in any of the operational modes using the LOG button on the handle. Up to 1000 data points can be stored internally.

Instrument setup can be done either through the front-panel controls or via the Lumatic Calibration Kit (PN: 4498-1018). The Model 3006 is shipped ready to use with batteries and a calibration certificate.



Specifications

Part Number: 48-4284

DETECTOR: 15.2 cm diameter x 2.5 cm thick (6 x 1 in.) plastic scintillator

SENSITIVITY: Typically 2500 cps per $\mu\text{Sv/h}$ (1500 cpm per $\mu\text{R/h}$) (^{137}Cs gamma)

ENERGY RESPONSE: Energy dependent

LINEARITY: Reading $\pm 10\%$ of true value

DISPLAY: 3-digit auto-ranging LCD with large 20 mm (0.8 in.) digits. Units: (k)cps, (k)cpm, (μ)(m)R(/h), (μ)(m)Sv(/h).
Indicators: bar graph, MAX, ALARM, USB, audio, low battery.

DETECTOR RANGE: Background to 20 $\mu\text{Sv/h}$ (2 mR/hr)

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

USER CONTROLS:

- ON/OFF: Press to turn ON; Tap to acknowledge alarms and silence alarm tone; Press to reset sigma audio alarm; Hold for OFF
- UNITS: Changes the units between count rate (cpm, cps), or dose/exposure ($\mu\text{Sv/h}$, mR/h)
- AUDIO: Turn "click" audio On/Off; Turn sigma audio beep On/Off
- MODE: Alternates between RATE (count rate), MAX (captures peak rate), and COUNT (user-selectable preset count time from 0 to 10 minutes)
- LOG: Press to store meter reading (requires Lumic Data Logger Kit)

DATA LOGGING: Can store up to 1000 data points internally. Requires Lumic Data Logger Kit (PN: 4498-1019)

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

ALARMS: Count rate, exposure/dose, and scaler alarm adjustable set-points

SIGMA AUDIO MODE: Alarm that allows user to find small increases above the background radiation level. The instrument will beep whenever it measures a rate that exceeds a threshold rate above the measured background rate.

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

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

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

HV RANGE: 400 to 1500 Vdc

AUDIO: Greater than 75 dB at 0.6 m (2 ft), approximately 4.5 kHz

POWER: 4 alkaline or rechargeable "AA" batteries (unit does not support in-device charging)

BATTERY LIFE: Approximately 750 hours of operation (as low as 100 hours with backlight configured for continuous-on), 16-hour low-battery warning

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 5 or IP rating of 53

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

OVERALL LENGTH: 118 cm (46.5 in.)

OVERALL WEIGHT: 3.2 kg (7.0 lb) (without batteries)

Options:

Lumic Calibration Kit (PN 4498-1018): Includes software and required cable. Lumic Calibration Software allows reading and writing of important instrument parameters via a USB port.

Lumic Data Logger Kit (PN 4498-1019): Includes software and required cable. Lumic Data Logger Software is required to use instrument data logging features.



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