

## 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  $\mu\text{Sv/h}$  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  $\mu\text{R/h}$ ) ( $^{137}\text{Cs}$  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, ( $\mu$ )(m)R(/h), ( $\mu$ )(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 Lumeric Data Logger Kit)

**DATA LOGGING:** Can store up to 1000 data points internally. Requires Lumeric 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  $^{\circ}\text{C}$  (-5 to 122  $^{\circ}\text{F}$ ), may be certified for operation from -40 to 65  $^{\circ}\text{C}$  (-40 to 150  $^{\circ}\text{F}$ )

**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:

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

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