Model 193-6
Gamma Survey Meter with Pole Extender

Features

- Range: 0-10 μSv/h
- Very Sensitive Pole Mounted Detector
- Dual Alarm Types
- Rugged
- 4-Decade Analogue Ratemeter

Introduction

The Model 193-6 is a highly sensitive gamma meter with an extended reach capability. A very sensitive 15.2 cm diameter x 2.5 cm thick (6 x 1 in.) plastic scintillator detector is mounted at the end of a 1.2 meter (4 ft) long pole to facilitate reaching elevated areas.

Attached to the user-end of the pole is a four-decade analogue ratemeter employing an aluminium cast instrument housing with a separate battery compartment and accompanying metal handle. The overall design delivers industrial robustness and quality that promote long lasting protection and instrument life.

The ratemeter front-panel controls include a rotary switch for selecting the four-decade range, instrument shut-off, and battery test; an audio on/off switch; a fast/slow response switch; and a pushbutton for count reset. This instrument supports two types of alarms; a user adjustable fixed point alarm, and a deviation alarm that activates at levels above a floating background. An alarm light is mounted to the front panel and is accompanied by an audio signal.

Specifications

- **DETECTOR:** 15.2 cm diameter x 2.5 cm thick (6 x 1 in.) EJ212 plastic scintillator
- **SENSITIVITY:** typically 2500 cps/μSv/h
- **ENERGY RESPONSE:** energy dependent
- **LINEARITY:** reading ±10% of true value
- **ALARM:** dual action alarm
  1. **FIXED:** alarm point that can be set at any point from 10% of full scale to full scale, and is indicated by a constant audible tone, and the lamp turning on
  2. **DEVIATION:** a quick alarm that is based on background radiation levels. When the instrument is turned on, it takes an eight-second measurement of background radiation levels and determines a deviation alarm setting. If the radiation level exceeds this setting, the alarm audio will beep every 1/8 second, and the lamp will flash.
- **CONTROLS:**
  1. **Rotary Selector:** switches between instrument off, battery check, ranges: x.1, x10, x100, x1000
  2. **Response Switch:** toggles between FAST (4 seconds) or SLOW (22 seconds) from 10% to 90% of final reading
  3. **Reset Pushbutton:** to zero meter, and also re-accumulate background data and recalculate the alarm point
  4. **Audio Switch:** for audio on/off, built-in unimorph speaker, greater than 60 dB at 0.6 meters
  5. **Calibration Controls:** accessible from front of instrument (protective cover provided)
- **POWER:** two “D” cell batteries
- **BATTERY LIFE:** typically 600 hours with alkaline batteries (battery condition can be checked on meter)
- **CONSTRUCTION:** cast and drawn aluminium with beige polyurethane enamel paint
- **WEIGHT:** 3.9 kg including batteries
- **OVERALL LENGTH:** 1.3 m