

## PM-33 Detector

Highly Sensitive Gamma Detector

Radiation Detection Division

Health Physics



The PM-33 is a scintillation probe for detection of gamma radiation from 0 to 50,000 cps with a sensitivity of 4,500 CPS per  $\mu\text{Sv/h}$  ( $^{137}\text{Cs}$ )

The PM-33 contains a highly efficient, hermetically sealed, NaI(Tl) scintillator, 3" diameter and 3" thick, coupled to a 3" photomultiplier tube. This is encased in a rugged, splash proof housing for protection against shock, vibration and humidity. The probe also contains a high voltage power supply, single channel analyzer (SCA), pulse shaper, GM saturation indicator, detector identifier and malfunction detection circuitry. This configuration minimizes noise, improving sensitivity and stability.

The PM-33 can be used as an detector to the RAM DA-2000. When used in conjunction with the TeleMeter extremely sensitive Environmental Monitor when connected directly to the TeleMeter or as an external

**Stand Alone Measuring Range:** Background to 10  $\mu\text{Sv/h}$

**Environmental Monitor Measuring Range:** Background to 15  $\text{mSv/h}$  (1.5 R/h) where the internal GM tube in the TeleMeter is activated to measure from 10  $\mu\text{Sv/h}$  to 15  $\text{mSv/h}$

### Features



# PM-33 Detector

**Radiation Detected:** Gamma above 50 keV

**Sensitivity ( $^{137}\text{Cs}$ ):** 4,500 CPS per uSv/h

**Scintillator:** NaI(Tl) 3" diameter, 3" high

**Energy Calibration:** Optional factory calibrated single channel analyzer (SCA) within the energy range

**Count Rate Range:** 0 - 50,000 cps

**Output Signals:** TTL pulses.

Detector status: ID, OK, malfunction, overflow

**Temperature Range:** Operation: -10°C to +50°C (15°F - 122°F)

Storage: -20°C to +60°C (-5°F - 140°F)

**Humidity Range:** 40% to 95% RH (non condensing)

**Dimensions:** 365mm (14.4") length, 105 mm (4.13") width

**Weight:** 2.95kg (6.5 lbs)

**Casing:** Aluminum, splash proof

## Ordering Information

BAK-1515    PM-33 Detector

ROTEM INDUSTRIES reserves the right to change specifications without advance notice