

# Wide Range Beta-Gamma GM Area Monitor

Area monitor in and around nuclear reactors, hot cells, irradiators and other facilities handling radioactive materials.



The FML-7B Series Radiation Monitors incorporate a digital alarm ratemeter, power supply, alarm, amplifier, choice of rack or case, and reliable GM

detector. Because of the plug-in modular construction, additional channels or functions can be added. GM detectors and circuit design prevent the system readings from falling even in very high fields. Front panel controls allow the alarm set point to be displayed. Alarm activation produces flashing red light on front panel and piercing intermittent 2000Hz tone.

Optional relay is also closed (or opened) for activation of remote alarms. Optional stand-by battery power available.

## Features

- On-line real-time monitoring
- All plug-in modular
- Rack mounting, or case
- Single or multi-channel
- Rugged GM detectors
- Local or remote monitoring (up to 500 ft. cable optional)
- High level alarm, solid state, non-contacting
- RS-232 output for printer or PC and remote display outputs
- Microprocessor based data measurement and display

## Specifications

- Range: 4 decade dynamic range 0.1 mR/hr to 1 R/hr \* (artificial background supplied by internal radiation source in probe)
- Other ranges available to 1,000 R/hr or down to 0.01 mR/hr.
- Accuracy: +/- 10% of decade
- Detector: Energy compensated halogen quenched GM detectors, in ruggedized probe with internal radiation source. Supplied with 8ft. cable. (Up to 500ft. of cable can be supplied as an Option.) Optional high range systems use High Range GM detectors. Detector is supplied with 8 ft. cable (up to 500 ft. of cable can be supplied as an option).
- Anti-Saturation: Circuitry is incorporated to prevent readings from falling below full scale in over range conditions (tested to 1,000 R/hr).
- High Voltage Output: 0 to +1500V at 200  $\mu$  A continuously adjustable.
- Energy Dependence:  $\mu$ 20% from 100 KeV to 1.2 MeV.
- Temperature: Operating range -30°C-50°C; drift less than 17% per °C at room temp. 0-95% humidity non-condensing.
- Readout: Large, easy to read Roentgen or Sievert display. User programmable.
- Front Panel Controls: Alarm Level Set, Display Alarm Set Point, Alarm Reset Pushbutton Power On-Off, Switch
- Alarms: Level is adjustable. Indicators include flashing red light and beeper.
- Power: 105-125 V (or 200-240 V), 50-60 Hz. Optional 12 Volt operation. Optional standby batteries, normally under continuous charge, automatically provide power for one week in event of AC power failure.
- Mounting: Electronics are normally furnished in FM-7 case but can be furnished uncased with mounting bars for rack or NEMA-4 (hostile environment) cabinet.
- Options: Multiple channel systems; Solenoid activated check source for system calibration; Remote alarm-flasher-howler; Remote meter readout with alarm; Analog output for chart recorder; Standby batteries; Cable to 500'.

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