MODEL HPIC

ENVIRONMENTAL GAMMA MONITORS

ULTRA SENSITIVE WIDE RANGE, VERSATILE

Designed around Overhoff Technology Corporation (OTC) proprietary electrometers, these high pressure ionization chamber gamma monitors are far more sensitive, yet physically much smaller than all other competing instruments.

SENSITIVITY

The OTC HPIC gamma monitors will detect changes of less than 1% of ambient terrestrial and cosmic radiation, they are stable to better than ± 0.02 µ R/h (± 0.2 nano Sv/h) at all temperatures.

RANGES

Dual ranges of display provide measurement to 1,999 µ R/h on the low range and to 199.99 mR/h on the high range.

SIZE

The OTC ionization chamber, pressurized to 40 atmospheres, is less than 2 liters in volume, the tripod mounted sensor package is the industry’s smallest, measuring only 7 ½”x9”x18”, including handles, and weighing only 16 lbs (7 kg).

ENVIRONMENTAL

The sensor package is waterproof and operates from -40° C to +60° C with no drift in zero and no practical change in span sensitivity. The sensor is rugged and will withstand moderate shock.
ENVIRONMENTAL GAMMA MONITORS CAN BE BUILD TO CUSTOMER SPECIFICATIONS

THREE VERSIONS ARE AVAILABLE
1. UMBILICAL CABLE, REMOTE RECORDING
2. LOCAL RECORDING, PMICIA CARDS
3. WIRELESS RADIO LINK

MODEL HPIC-CU-WL (WIRE LINK)

Low cost sensor unit with analog or RS-232 outputs for remote display and recording. Uses a three or four conductor low cost cable of virtually unlimited length for connection to a remote power supply and the remote recording and display.

Model HPIC-CU-WL sensor unit contains a battery for local power as well as a 4 1/2 digit LCD measurement display. It is furnished with an a.c. power adaptor for use with 115/230 V mains power.

MODEL HPIC-CU-PCMCIA (DATA STORAGE CARD)

Low cost sensor unit with solid state memory cards (PCMCIA) for data recording up to one month. Power to this unit can be supplied either from an a.c. power adaptor (115/230 V), a solar power cell, or a storage battery of sufficient size.

Each Model HPIC-CU-PCMCIA is supplied with two PCMCIA cards, one of which is installed in the sensor, while the second card is used to transfer the stored data to a PC or other digital computer system for permanent storage or for display.

Data is recorded at uniform intervals, once a second, every ten seconds, or as requested by the customer. The radiation data is keyed to time and date. Up to 15 Mb can be stored, and the system is fully DOS compatible.
MODEL HPIC-CU-RL (RADIO LINK)

Low cost sensor with a spread spectrum wireless link to transmit continuous data to a remote location for display and recording. The sensor can be powered in any of three ways, by using an a.c. adaptor (115/230 V), a solar cell array, or a sufficiently large accumulator that is replaced periodically.

A wireless receiver is supplied to provide a 0 - 5 V d.c. signal for remote recording or display. A selection of antennas is available, dimensions and sophistication being dependent on the distance between the stations.

CENTRAL STATION MONITOR
MODEL HPIC-SM

Complete systems comprising one or more HPIC sensors which communicate to 19" rack units for direct display of dose rate, integrated dose. Alarms for measurement and internal electronics supervision are coupled to the basic sensor via a number of methods that include low cost four wire line, telephone links, spread spectrum RF, or microwave. These monitors are available with battery back up to maintain operation during a.c. power failure.

REMOTE DISPLAY UNIT
MODEL HPIC-RDU-WL

A simple remote unit for a wire link connection to the sensor unit. Model HPIC-RDU-WL contains a power supply for both units, as well as a 4 1/2 digit LCD display and logarithmic chart recorder.

REMOTE DISPLAY UNIT
MODEL HPIC-RDU-RL

A simple remote unit for wireless radio link connection to the sensor unit. Model HPIC-RDU-RL contains the radio receiver as well as a 4 1/2 digit LCD display and a logarithmic chart recorder.
**MEASUREMENT**

**MEASUREMENT RANGE**
- low: 0 - 1,999.9 μR/h (0 - 19.999 μSv/h)
- high: 0 - 199.99 mR/h (0 - 1999.9 μSv/h)

**RESOLUTION AND ACCURACY (SPAN)**
- 0.1 μR/h (1 μSv/h)

**DISPLAY**
- 4 ½ digit LCD panel meter

**STABILITY AND DRIFT**
- better than ± 0.02 μR/h (± 0.2 nano Sv/h)

**ENERGY RESPONSE**
- flat above a low energy cut off of 30 Kev

**DATA ACQUISITION, OPTIONS**

**RECORDER**
- electromechanical, logarithmic scale

**TOTALIZER**
- 8 digit LCD to accumulate dose
  - up to 99,999.99 mR (100R)

**LINEAR OUTPUT**
- 0 - 10 V

**LOGARITHMIC OUTPUT**
- 1 Volt per decade, 0.1 μ R/hr = 0 V

**LOGARITHMIC E TO I**
- 4 mA = 0.1 μ R/hr, 2 mA per decade

**RS - 232**
- 16 bit resolution

**LAP TOP P.C.**
- Consult the factory for details

**ENVIRONMENTAL**

**TEMPERATURE, HUMIDITY**
- - 40° C to + 60° C, 100 % RH

**POWER**
- 115/230 VAC 50/60 Hz, or 12 VDC, 40 Ah.

**DIMENSIONS AND WEIGHTS**

**SENSOR**
- 18” X 7.3” X 9”, 46 X 18.5 X 23 cm,
  - 16.5 lbs (7.5 kg)

**TRIPOD (OPTIONAL)**
- 30” length, folded, 76 cm, 5.5 lbs (2.5 kg)

**ELECTRONICS ENCLOSURE (HPIC-SM)**
- 19” rack, 8.8” high, 9” deep behind front panel,
  - 15 lbs. (6.8 kg)

**1000 FEET CABLE REEL (OPTIONAL)**
- 18” x 15” x 8”, 46 x 32 x 2 cm, 28 lbs (12.6 kg)

**ELECTRONICS UNIT FIELD PORTABLE (HPIC-SP)**
- 18.5” high, 7.5” wide, 14.3” deep, 15 lbs.,
  - 47 x 19.1 x 36.3 cm, 15 lbs (6.8 kg)

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