

# ENVIRONMENTAL GAMMA MONITORS



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## 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 other competing instruments.

#### SENSITIVITY

The OTC HPIC gamma monitors will detect changes of less than 1% of ambient terrestrial and cosmic radiation, over a wide temperature range. The standard sensitivity version measures as low as  $10\mu\text{ R/h}$  [ $0.1\mu\text{Sv/h}$ ]. Also available is a high sensitivity version that can measure as low as  $1\text{ R/h}$  [ $0.01\mu\text{Sv/h}$ ] with better stability.

#### RANGES

The auto-ranging electronics has a measurement range up to  $4,000\text{ mR/h}$  [ $40\text{mSv/h}$ ] on the standard version. The high sensitivity version is limited to a measurement range up to  $400\text{ mR/h}$  [ $4\text{mSv/h}$ ].

#### SIZE

The tripod mounted sensor is compact, measuring  $7''$  [ $178\text{mm}$ ] diameter x  $14''$  [ $356\text{mm}$ ] long, excluding power supply module. The total package weighs only  $18\text{ lbs}$  [ $8.2\text{ kg}$ ].

#### ENVIRONMENTAL

The sensor package is waterproof and operates from  $0^\circ\text{ C}$  to  $+50^\circ\text{ C}$  without drift in zero and change in span sensitivity. The sensor is rugged and will withstand moderate shock.

#### REMOTE CAPABILITY

The HPIC can be operated in remote locations without AC line power for up to 24 hours when using a power supply module that is equipped with internal batteries. Additional power supply modules are available as an accessory. Continuous operation is possible by using fully charged modules, rotated on a daily basis. Data can be stored at the site of the HPIC on compact flash memory cards or transmitted in real-time via RF link.



**MEASUREMENT, STANDARD SENSITIVITY VERSION**

MEASUREMENT RANGE	0-4.0 R/h [0-40 mSv/h]
RESOLUTION AND ACCURACY (SPAN)	10 $\mu$ R/h [0.1 $\mu$ Sv/h]
STABILITY AND DRIFT	better than $\pm 10$ $\mu$ R/h ( $\pm 0.1$ $\mu$ Sv/h)
DISPLAY	Monochrome graphic LCD with backlight

**MEASUREMENT, HIGH SENSITIVITY VERSION**

MEASUREMENT RANGE	0-400 mR/h [0-4 mSv/h]
RESOLUTION AND ACCURACY (SPAN)	1 $\mu$ R/h [0.01 $\mu$ Sv/h]
STABILITY AND DRIFT	better than $\pm 3$ $\mu$ R/h ( $\pm 0.03$ $\mu$ Sv/h)
DISPLAY	Monochrome graphic LCD with backlight

**DATA ACQUISITION**

COMMUNICATION LINK	RS232 Serial Transmission
SOFTWARE	Terminal Emulation Program

**POWER**

HPIC POWER	Li-Ion rechargeable battery pack, operates for 8 hrs (full charge). Recharges in 4 hours at 7.5V, 1A
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POWER SUPPLY MODULE	Input: 100-240VAC, 50-60Hz Output: 7.5VDC, 3A max Internal NiMH battery, 6 cells, 9.5Ah HPIC will operate for 24 hrs at full charge recharges in 8 hrs
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**ENVIRONMENTAL**

TEMPERATURE, HUMIDITY	0° C to +50° C, 99% RH
ENCLOSURE RATING	IP64, sealed against dust and water spray

**DIMENSIONS AND WEIGHTS**

SENSOR TUBE	5" [127mm] Diameter x 12.6" [320mm] Long
SENSOR FRONT PANEL	6.6" [168mm] Diameter x 0.5" [12mm] Thick
TRIPOD MOUNTING PLATE	25" [635mm] L x 7" [178mm] W x 0.5" [12mm] Thick
WEIGHT	12.5 lbs [5.7 kg]
TRIPOD, adjustable height	38" to 63" [96.6cm to 160cm] 9 lbs [4.1 kg]
POWER SUPPLY MODULE	4.8" [122mm] H x 6.3" [160mm] W x 9.4" [239mm] L 5.5 lbs. [2.5 kg]

**OPTIONS: Choose one of the following,**

RADIO NETWORK	1500ft [450M] up to 20miles [32.2km]
LOCAL DATA STORAGE	Data recording media; CF card, data capacity; 512M