

Very Low Range  
ENVIRONMENTAL GAMMA COUNTER  
Model # LOGAM-E/W  
# LOGAM-D-E/W

**FEATURES:特点**

- NO HIGH PRESSURE 无高压
- OKAY FOR ANY SHIPMENT 可选任何邮寄方式
- REPLACES LARGE “HAZARDOUS” PIC Detectors “危险” 的超级PIC探头
- RUGGED REAL TIME, IN-LINE, CONTINUOUS耐用，实时，在线，连续
- EASY CALIBRATION容易标定
- Full SCADA compatibility SCADA全兼容

**APPLICATION:应用**

- Drift Free Measurement of environmental gamma levels 对环境伽马零漂移测量
- LoGam detects small changes in ambient radiation levels the same or better than traditional PIC chambers  
LoGam检测环境辐射中微小辐射变化，相当于或优于传统的PIC电室
- Now you can legally ship your equipment for use in other locations or for calibration and maintenance.

现在您可以合法地邮寄设备到任何地点来使用，标定和维护



**PROBLEM:** CURRENT REGULATIONS and Environmental concerns demand ever lower levels of Gamma Flux measurement. ION chambers have been the sensor of choice due to their reputation for wide range, linearity and stability, and it is true Ion chambers are incredibly versatile detectors. However it turns out that Ion chambers have a wide range for higher level measurements. They have been adapted to see background and below only by using large 10-14” diameters and high pressures of 10 to 20 atmospheres. But they still can’t reliably go to the low levels that are desired. The size and high pressure of the PIC instruments was merely an inconvenience until the current near prohibition on shipping pressurized chambers.

问题：由于目前的规定和对环境的担心，对 $\gamma$ 流出物的测量低到前所未有的限值，电离室因其宽量程，线性和稳定性成为首选，电离室也是极理想的多用途探测器。然而，电离室的宽量程适于较高探测限测量，使用直径10-14”大电离室在高压10-20个大气压下，可见本底及以下辐射，但还是不能测量想要的低限。PIC仪器体积和高压使该仪器由于近期禁运变得不方便。

**SOLUTION:** Now there is a **Continuous Real Time** monitor the Model **LoGAM-E** that solves this problem. The information from these detectors is analyzed and displayed in units of micro R/hr or micro Sv/h. The data is continuously updated. It also accumulates to give better statistics. every minute, every hour and every day. The longer update times correspond with greater precision and increased sensitivity. Measurements of radiation concentration logged are 24 hr/day, 7 day/week.

解决方案：现在有连续-实时-监测器，型号 LoGAM-E,问题得到解决。探测器信息的分析与显示单位为微伦/小时或微希沃/小时，数据持续更新，积累以便给出更好统计，每分钟，每小时，每天。更新时间越长，精度越高灵敏度越高。辐射测量浓度秒24小时录入。



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**DESCRIPTION:** Model **LOW-GAM-E** is an industrial measurement system. It includes detector and electronics for measuring of gamma fields strength. The pre-amps are plug in modules allowing change or addition of functions at a later date, and allow rapid repair by module replacement in the field. The modular system is covered by TA's unique exchange warranty system in addition to the full one year warranty.

描述：型号LOW-GAM-E是一个工业测量系统，包括用来测量伽马场强的探头和电子学。前置放大器为插卡式模块，以允许更换或以后功能拓展及现场通过更换模块达到快速维修目的。模块系统在TA质保范围之内，外加全年质保。

**Principal Detectors** in this system Gamma flux is measured using a cluster of energy compensated long life T-1150 GM tubes. The energy range is 60 KeV to 3 MeV.

系统中主要探测器：由一组长寿命的能量补偿T-1150GM管测量伽马流，能量范围60 KeV - 3 MeV

## ENVIRONMENTAL GAMMA MONITORS 环境伽马

### SENSITIVITY 监测器灵敏度

The LoGam-E gamma monitors will detect changes of less 10% of ambient terrestrial and cosmic radiation, over a wide temperature range. The standard sensitivity version measures as low as  $1\mu\text{R/h}$  ( $.01\mu\text{Sv/h}$ ) with good stability.

LoGam-E伽马监测器将监测到宽温度范围下变化小于10%的大地射线和宇宙射线，这款标准的灵敏度测量低到 $1\mu\text{R/h}$ ，稳定性良好。

### SIZE 尺寸

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

带三脚架的传感器体积紧致，直径7" [178mm] x 长14" [356mm]，不包括电源模块。总重量仅18磅，8.2公斤。

### ENVIRONMENTAL 环境要求

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.

探头组件防水，操作温度 $0^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ 无漂移，灵敏度无影响。

### REMOTE CAPABILITY 遥控功能

The standard LoGam-E/W is AC operated but is often installed in remote locations. Data can be stored at the site of the LoGam-E on compact flash memory cards or transmitted in real-time via optional RF link.

标准LoGam-E /W AC供电，但经常安装在偏远地方，数据存储在LoGam-E 内存卡里或通过RF链接实时传输。



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**Data: Analysis-Display and Archive 数据：分析-显示和存档**

Historical data is easily displayed on-screen (and/or printed out on the included graphics printer) in tabular or graphical format, showing quantitative information as well as trends. Data is recorded frequently so time-resolution is excellent.

历史数据容易屏幕显示 ( 也可用自带图谱打印机打印出来 ) 表格格式或图形格式，以显示定量信息和趋势。数据录入频繁因此时间分辨率极佳。

Ethernet and USB ports (with security) make it easy to archive and further analyze data. Continuous, Reliable Data – YES, False Alarms – NO

Each alarm activates fail-safe relays. Relay contacts are available to user. (on AC power models)  
以太网和USB接口 ( 带保险 )，容易存档和进一步分析数据。持续可靠数据—YES，假报警---NO  
每一次报警激活防故障继电器，提供继电器触片 ( AC电源型号 )

Specialized software designed for user friendly adaptability for your needs. Data is interfaced with a USB or Ethernet port.

Full SCADA compatibility. Optional MODBUS or other protocols.

用户专用软件，应适应用户需

求。数据连接到USB或以太网接

口。全SCADA兼容，可选

MODBUS 或其它协议

MODEL	DESCRIPTION	POWER
LoGAM-E	Environmental Range ( 4-Decades) 1-10,000 uR/Hr (.01 – 100 uSv/h)	110 VAC 220 VAC
LoGAM-W	Wide Range ( 7 – Decades) 10 uR/Hr – 100 R/Hr (0.1 uSv/h – 1Sv/h)	110 VAC 220 VAC
LoGAM-D-E	Detection Head from LoGAM-E includes; Detector Analyzer Logic Transmitter	12 V DC
LoGAM-DW	Detection Head from LoGAM-W includes; Detector Analyzer Logic Transmitter	12 V DC



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AMBIENT TEMPERATURE: 65 - 100 ° F (wider temperatures ranges optional)

OPTIONAL COOLING SYSTEM 65 - 100 ° F ( 可选较宽温度范围 )

环境温度 :

可选购冷却系统

Cooler model Cool-33 for detector is used in case of higher ambient temperatures.

较高环境温度下使用Cool-33

### MEASUREMENT, STANDARD SENSITIVITY VERSION

测量 , 标准灵敏度版本

#### MEASUREMENT RANGE 测量范围

LoGam-W 10uR/h to 100R/hr (0.1 uSv/h to 1 Sv/h)

LoGam-E 1 -10,000  $\mu$ R/h (0.01–100 $\mu$ Sv/h wider and/or higher ranges optional)

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 Graphic LCD with backlight

分辨率和精度 10  $\mu$ R/h [0.1  $\mu$ Sv/h]

稳定性和漂移 优于 $\pm 10$   $\mu$ R/h ( $\pm 0.1$   $\mu$ Sv/h)

显示 图形LCD带背景灯

### DATA ACQUISITION

数据采集

COMMUNICATION LINK RS232 Serial Transmission

通信线路

SOFTWARE Complete user friendly data analysis, display and storage  
软件 配备用户友好数据分析 , 显示和存储软件



## POWER电源

### LoGam POWER

电源

Li-Ion rechargeable battery pack, operates for 8 hrs with display off. (full charge). Recharges in 4 hours at 7.5V, 1<sup>a</sup>

Li-Ion充电电池组，关闭显示器情况下使用8小时（充满电），充电时间为4小时

### POWER SUPPLY MODULE (OPTIONAL)

电源模块  
( 选购 )

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.

输入: 100-240VAC, 50-60Hz. 输出: 7.5VDC, 3A ( 最大 )  
内置NiMH电池，6节，9.5Ah. HPIC 充满电时可使用 24 小时，每次充电8小时

## ENVIRONMENTAL 环境

### TEMPERATURE, HUMIDITY

温度，湿度

0° C to +50° C, 99% RH

### ENCLOSURE RATING

包装级别

IP64, sealed against dust and water spray

IP64，密封防尘防溅水

## DIMENSIONS AND WEIGHTS 尺寸和重量

### SENSOR HOUSING

传感器外壳

5" [127mm] Diameter x 12.6" [320mm] Long

### SENSOR FRONT PANEL

传感器前板

6.6" [168mm] Diameter x 0.5" [12mm] Thick

### TRIPOD MOUNTING PLATE

三脚架安装板：

25" [635mm] L x 7" [178mm] W x 0.5" [12mm] Thick

### WEIGHT重量

12.5 lbs [5.7 kg]

### ADJUSTABLE HEIGHT

可调节高度

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 g]  
电源模块

## OPTIONS: Choose one of the following 选购：

### RADIO NETWORK无线网络

1500ft [450M] up to 20miles [32.2km]

LOCAL DATA STORAGE本地数据存储 Data recording media; CF card, data capacity; 512M

### SHIELDING AND COLLIMATORS 屏蔽和准直仪



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Radiation Detection & Measurement For 60 Years