FEATURES:

- •NO HIGH PRESSURE
- **•OKAY FOR ANY SHIPMENT**
- •REPLACES LARGE "HAZARDOUS" PIC Detectors
- •RUGGED REAL TIME. IN-LINE. CONTINUOUS
- •LOGAM-ID GIVES GAMMA SPECTRUM + ISOTOPE IDENTIFIER
- •EASY CALIBRATION
- •Full SCADA compatibility

APPLICATION:

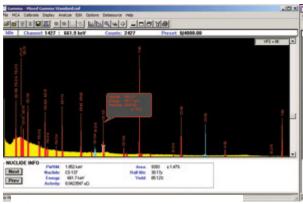
- •Drift Free Measurement of environmental gamma levels
- •LoGam detects small changes in ambient radiation levels same or better than traditional PIC chambers
- •Now you can legally ship your equipment for use in other locations or for calibration and maintenance.



PROBLEM: CURENT 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 lon chambers are incredibly versatile detectors. However it turns out that lon 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 go to the low levels that scintillation can. The size and high pressure of the PIC instruments was merely an inconvenience until the current near prohibition on shipping pressurized chambers.

SOLUTION: For the first time in a **Continuous Real Time** monitor the Model **LoGAM** solves this problem by continuously monitoring the gamma flux with a gain stabilized scintillator. 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 24 hr/day, 7 day/week.

GAMMA-MCA ISOTOPE INDENTIFIER



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DESCRIPTION: Model **LOW-GAM-ID** is an industrial measurment system. It includes a MCA spectrum analyzer measuring of gamma-emitting radio nuclides. The electronics are microprocessor with color LCD display. 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. On-site warrantees available in many areas.

Principal detectors in this system.

Gamma flux is measured using a MCA analyzer with greater than 1,000 channels. The energy range is user settable. For example the MCA can be set for Gamma energy of 10 KeV to 3 MeV.

Isotope Identification System

Peak Detection and Isotope Identification

TA SMART-PEAK™ Software detects radiation peaks even at very low gamma levels, In the event of high activity and during system calibration, the isotope identifier function takes over and displays the specific radioactive nuclides that constitute the source term.

ENVIRONMENTAL GAMMA MONITORS

ULTRA SENSITIVE VERSATILE

Designed around spectrum stabilizer TA/Overhoff proprietary technology. These high sensitivity gamma scintillation monitors are far more sensitive, yet physically much smaller than other competing instruments.

SENSITIVITY

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

TOP OF RANGE

TOP of measurement range is 2 mR/h (20 μ Sv/h). Higher levels are available as an option.

SIZE

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].

ENVIRONMENTAL

The sensor package is waterproof and operates from 0°C to +50°C without drift in zero and change in span sensitivity.

REMOTE CAPABILITY

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

Data: Analysis-Display and Archive

In each peak or area of interest, the net counts are automatically converted to dosereate units of uR/hr (or nano Sv/h) (using the detector efficiencies automatically measured and stored previously by LOGAM-ID semi-automatic self-calibration procedure).

The concentration and total activity released and MDA levels are continuously calculated and recorded. This real time information will alert the notification system. Also, all data is saved to the flash drive in spreadsheet format.

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.

Ethernet and USB ports (with security) make it easy to archive and further analyze data.

Continuous, Reliable Data - YES, False Alarms - NO

Our newest systems have multiple layers of protections and redundancy in both the software and the physical act of reporting an alarm, that prevent false alarms. This can include a optional alarm voting system so that alarms will come on only if all the data is consistent and conclusive The data is continuously recorded to allow human interpretation.

Each alarm activates fail-safe relays. Relay contacts are available to user.

Specialized software designed for Gamma Spectrum Detection and user friendly adaptability for your needs. Data from the 1024 channel MCA-Multi-channel analyzer is interfaced with a USB or Ethernet port. Full SCADA compatibility and SCADA.

Optional MODBUS or other protocols.

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

OPTIONAL: Cooler model Cool-33 for detector & sample is used in case of

higher sample or ambient temperatures.

MEASUREMENT, STANDARD SENSITIVITY VERSION

MEASUREMENT RANGE 1-2000 μR/h (0.01–20μSv/h wider and/or higher ranges optional

RESOLUTION AND ACCURACY (SPAN) 10 μ R/h [0.1 μ Sv/h]

STABILITY AND DRIFT better than $\pm 10 \mu R/h (\pm 0.1 \mu Sv/h)$

DISPLAY Graphic LCD with backlight

DATA ACQUISITION

COMMUNICATION LINK RS232 Serial Transmission

SOFTWARE Complete user friendly data analysis, display and storage

POWER

LoGam POWERLi-lon rechargeable battery pack, operates for 8 hrs with display

off. (full charge). Recharges in 4 hours at 7.5V, 1A

POWER SUPPLY MODULE Input: 100-240VAC, 50-60Hz. Output: 7.5VDC, 3A max

(OPTIONAL) Internal NiMH battery, 6 cells, 9.5Ah. HPIC will operate for 24

hrs at full charge recharges in 8 hrs.

ENVIRONMENTAL

TEMPERATURE, HUMIDITY 0° C to +50° C, 99% RH

ENCLOSURE RATING IP64, sealed against dust and water spray

DIMENSIONS AND WEIGHTS

SENSOR HOUSING5" [127mm] Diameter x 12.6" [320mm] LongSENSOR FRONT PANEL6.6" [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]

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 g]

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

SHIELDING AND COLLIMATORS

VERY LOW ACHIEVABLE DETECTION LEVELS MCA BASED GAMMA SPECTROMETRY COUNTER