

TRITIUM MONITOR

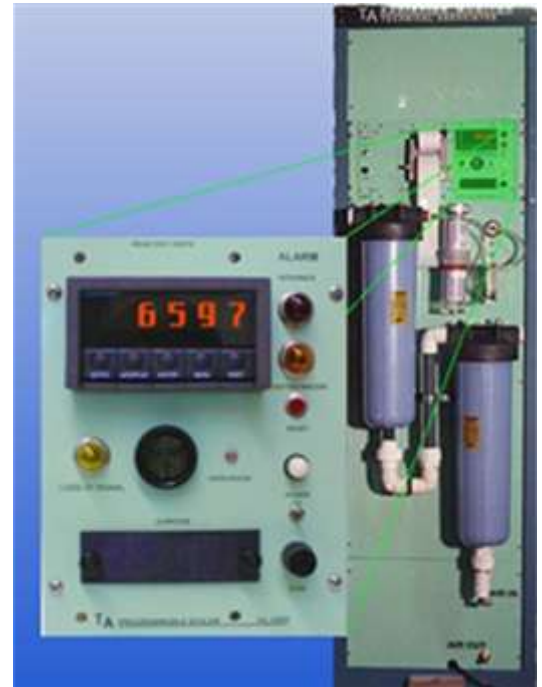
氚监测器

For Public Release Level
公共排放标准

Model ~ STG-4S/D & STG-5ATL

FEATURES: 特点

- ON BOARD MEMORY
机载内存
- MICRO PROCESSOR TO ESTABLISH UNITS AND PARAMETERS
微处理器设定单位和参数
- USB & ETHERNET DATA PORT
数据接口 USB 和以太网
- DIGITAL ACCURACY SENSITIVE TO 10^{-7} $\mu\text{Ci/cc}$
数字精确到 10^{-7} $\mu\text{Ci/cc}$
- MEASURES DOES-RATE AND DOSE
测量剂量率和剂量
- ALARM – VISUAL & AUDIO
报警-视听
- DYNAMIC BACKGROUND COMPENSATION
动态本底补偿
- CAN ACTUATE COMPUTER OR REMOTE CONTROL
可以启动电脑或遥控
- MEASURES TRITIUM AS HTO IN PRESENCE OF OTHER RADIOACTIVE GASES (STG-5ATL)
在其它核素出现情况下测量氚化水(STG-5ATL)
- CLEANS GAS STREAM OF PARTICULATES AND IONS
清扫粒子和离子气流



DESCRIPTION: 描述

Technical Associates' **STG-4S/D** and **STG-5ATL** Tritium monitors are sensitive, rugged stack or effluent monitors for detection and measurement of airborne Tritium.

TA 公司的氚烟道或排放物监测器 **STG-4S/D** 和 **STG-5ATL** 灵敏坚固，检测和测量气溶胶氚

- The subtractive balanced chamber electrometer circuit decreases background effects to negligible levels.
- 平衡室扣减静电计电路将本底减少到可以忽略的水平



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Divisions of  US NUCLEAR CORP

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- The deionized and filtered intake reduces to negligible levels spuriousity based on smokes, dusts, and existing ionization in the air.
- 去离子和过滤后的进气将烟雾，粉尘和空气中的电离子杂散影响减少到可以忽略的水平
- Inlet and outlet hoses allow the return of monitored air to source: interiors of fume hoods, exhaust stacks, etc.
- 进出管允许将被监测气样返回：如排风罩内部或烟道等
- The STG-5ATL will measure airborne Tritium as HTO in concentrations as low as $1 \times 10^{-7} \mu\text{Ci/cc}$ of air in the presence of other isotopes.
- STG-5ATL 将通过测量 HTO 来测量气溶胶氚，在其它核素出现情况下测量浓度低至 $1 \times 10^{-7} \mu\text{Ci/cc}$

All instruments are calibrated at the factory. Calibration check may be performed in the field with a license exempt microCurie level Beta source.

所有仪器工厂校准，校准检测可用豁免的微居水平 β 源现场完成。

SPECIFICATIONS:

规格

Ranges:

(No range switching)

量程:

(无量程切换)

STG-4S/D:

Six decade $10^{-7} - 10^{-1} \mu\text{Ci/cc}$ - Digital-Auto ranging.

6 量级 $10^{-7} - 10^{-1} \mu\text{Ci/cc}$ - 自动数字量程

STG-5ATL

Four decade $10^{-7} - 10^{-3} \mu\text{Ci/cc}$ - Analog-Log Scale

4 量级 $10^{-7} - 10^{-3} \mu\text{Ci/cc}$ - 模拟对数刻度

Background:

Essentially eliminated by subtractive balanced chambers.

本底:

通过平衡室扣减基本消除本底影响

Smoke, Dust & Ion Elimination:

Filter and deionizer reduce effects to negligible levels.

清除烟尘、离子:

过滤器和去离子器将影响降到可以忽略的水平

Circuit:

Electrometer circuit amplifies net difference between a 50 liter Tritium internal chamber and a background chamber of similar size and configuration.

电路:

静电计电路放大了 50 升氚内室和同尺寸和布局的本底室的净差

Detector

STG-4S/D:

Air stream is passed through sample chamber to measure all radioactive gas content; normally as Tritium, optionally as other (e.g. Xenon, Krypton, C^{14}O_2 etc.)

气流通过样品室，其所有辐射气体均被测量，如：氚，可选择其它气体（如氙，氪， C^{14}O_2 等等



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STG-5ATL: After first chamber, HTO is removed from air stream, which is then passed through second chamber. Reading of difference gives concentration of Tritium as HTO in presence of other isotopes or other compounds.

通过第一个测量室，HTO 从气样中移除，然后通过第二个测量室，在其它核素或成分存在的情况下读数差给出氚化水浓度。

Calibration: Can be calibrated internally with Tritium (or HTO) gas, or on a Gamma calibration course; or can be checked at a single point with an external (not provided) Beta source.

校准: 可用氚气（或 HTO）进行内部刻度，或使用 γ 过程标定，或用外部 β 源单点检测（不提供）

Output: 输出

STG-4S/D: RS-232 serial output.

RS-232 串口输出

STG-5ATL: Digital output. One count per $1 \times 10^{-7} \mu\text{Ci/cc}$.
Optional 0-5 volt or 4-20 mA

数字输出，每个计数 $1 \times 10^{-7} \mu\text{Ci/cc}$.

可选 0-5 V 或 4-20 mA

Alarm: High Level: Red flashing light plus warbling sound
System Fault Alarm: White steady light

报警: 上限: 闪烁红灯加颤音
系统故障报警: 白色稳定灯

Remote Alarm: TTL closure-failure. TTL closure-high level.

远程报警: TTL 关闭-故障，TTL 关闭-上限

Dimensions: 23" wide x 66" high x 36" deep.

尺寸:

Shipping Weight: 635 lbs.

邮寄重量:

Optional Accessories: Remote alarm (audible & visual) Model Ral-8 (including 25" of cable). Can be used to 500 feet. 4-20 mA for computer.

可选配件: 远程报警（视听）Ral-8（包括 25 英寸线）可延长至 500 英尺，4-20 mA 输出

Optional Features: Analog - 1 volt/decade

可选功能: 模拟-1V/10 进制

Interconnection to/from port of other gas or particulate monitor.
Readout as radioactive gas other than Tritium

与其它气体或粒子监测器相连，读出除氚以外的其它辐射气体读数



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