

TRITIUM SURFACE CONTAMINATION MONITOR

氚表面污染监测器

Model#PTS-26/S /M

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AND NOW...

现在

Figure1: PTS-26S

MODEL PTS-27/PRS FOR REJECTION OF OTHER
NUCLIDES AND INTEGRATION CAPABILITIES

型号 PTS-27/PRS, 抑制其它核素并一体多功能

FEATURES:特点

- PORTABLE 便携
- SENSITIVE 敏感
- LOW GAS CONSUMPTION 低气体消耗
- BUILT IN AUDIO 内置音频
- AUTO GAS SHUTOFF 自动气体关闭

DESCRIPTION:

The PTS-26 and PTS-27 Tritium Contamination Monitors are portable gas flow proportional counters sensitive to betas of H-3. The windowless probes slide over flat surfaces on poly tape which gives repeatable spacing from surface as well as easy scratch-free movement. The poly tape is easily cleaned but may also be replaced if contaminated. P-10 counting gas utilized in the PTS-26 and PTS-27 probes is non-combustible and can be used in any environment.

描述: 型号 PTS-26 和 PTS-27 氚污染监测器是便携式流气正比计数器, 对氚中 β 粒子敏感。无窗探头滑过聚乙烯带平坦表面, 保证了测量距离重复性(相同), 易移动和无划痕。聚乙烯带容易清理, 但如果受污染也要更换。PTS-26 和 PTS-27 探头使用的 P-10 计数气体不易燃, 可用于任何环境。

Gas use is minimized by careful design of chamber and by auto shut-off of gas flow when "trigger" on probe handle is released. Typical counting efficiency is 70% of all Tritium betas escaping the surface being monitored as compared with results obtained using an internal hemispherical 2 pi counter. Gas flow is normally set at 800 cc/min, giving a one hour use for lecture bottle or, of course, proportionally longer within larger cylinder. (See option below) Probe may also be used to monitor hands, clothing and equipment with included Model H face plate. Two lecture cylinders of P-10 gas are included with instrument.

当探头把手上的“触发”被释放时, 精心设计的气室和流气自动关闭功能最大限度地减少气体使用。与使用内部半球形(2 π)计数器所得结果相比, 典型计数效率为所有表面逃离的被监测氚 β 粒子的 70% , 气流通常设定在 800 cc/min, 一口气瓶能用一小时, 或当然更大的气瓶相应的使用



Figure 1: PTS-26S

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时间更长（见以下选项），探测器也可以用来检测手、衣服和设备，包括型号 H 面板。仪器包含两气瓶 P-10 气体。

The electronics include T/A stabilized high voltage bias supply, preamp, pulse shaper and pulse to analog converter. Circuit design minimizes recovery time of detector and allows linear response at higher count rates than previously possible. A piezo electric speaker with volume control and 3-1/2" meter provide audible as well as visual readout.

电子产品包括 T /A 稳定的高电压偏置电源，前置放大器，脉冲整形器和脉冲模拟转换器。电路设计最大限度地减少探头恢复时间，更高的计数率，允许线性响应，带音量控制的压电扬声器 3.5" 率表提供声音和视觉读数。

SPECIFICATIONS:规格

Ranges: 500; 5,000; 50k; 500k cts/min (PTS-26M and PTS-27M) or
0-10; 100; 1,000; 10,000 cts/sec (PTS-26S and PTS-27S)

量程: 500; 5,000; 50k; 500k 计数/分钟 (PTS-26M 和 PTS-27M) 或者
0-10; 100; 1,000; 10,000 计数/秒 (PTS-26S 和 PTS-27S)

Flowmeter: 10-1000 cc/min. Needle valve control.

率表 10-1000 cc/min。针型阀控制

Background: Typically less than 500 cts/min or 10 cts/sec (PTS-26M or PTS-26S)

本底 通常低于 500 cts/min 或 10 cts/sec (PTS-26M 或 PTS-26S)

800 cts/min for (PTS-27M)

PTS-27M，每分钟计数 800

15 cts/sec for (PTS-27S)

PTS-27S，每秒计数 15

Controls: Open range switch, battery check, flow gas control, sound volume control.

Hidden high voltage bias supply for detector: Input sensitivity high voltage control.

控制

Calibration: 4 range pots and 1 overall control. Internal.

校正

Detection Area: PTS-26S (or M) With clothing mask attached 0.5cm x 6.5cm. Mask removed
1.5cm x 11.5cm.

检测区域: PTS-26S 或 M，带布罩 0.5cm x 6.5cm.，不带罩 1.5cm x 11.5cm.

PTS-27S (or M) With clothing mask attached 0.5cm x 14cm. Mask removed
4.6cm x 21.6cm.

PTS-27S 或 M，带布罩 0.5cm x 14cm. 不带罩 4.6cm x 21.6cm.

Sensitivity: At 100 Bq/100 cm, 35 cts/sec above background for PTS-27.

6 cts/sec above background for PTS-26.

灵敏度: 型号 PTS-27，本底以上 100 Bq/100 cm，每秒计数 35；型号 PTS-26 本底以

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上每秒计数 6.

Battery: 2 nine volt "transistor" batteries Eveready 1222 or equivalent, 300 hour normal operating life.

电池: 2 节 9V 晶体电池, 永备 1222 或当量电池, 正常操作寿命 300 小时

Weight: Probe PTS-26: 0.53 Kg (1lb. 3 oz.)

探头 PTS-26: 0.53 Kg (1 磅. 3 盎司.)

重量 Probe PTS-27: 0.57 Kg (1lb. 4 oz.)

探头 PTS-27: 0.57 Kg (1lb. 4 oz.)

Electronics Package: 2.6 Kg (5lbs. 12oz.) plus

电子学组件: 2.6 Kg (5lbs. 12oz.)

P-10 gas container: 0.6 Kg (2lbs. 6 oz.)

P-10 气体容器: 0.6 Kg (2lbs. 6 oz.)

Shipping Weight: 15 lbs.

装船重量: 15 lbs.

Option: Larger gas cylinder (DOT 3AA2015) 35 capacity of lecture bottle. On two wheel dolly.

选购: 较大气瓶(DOT 3AA2015), 容量 35, 带两轮推车。

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