

**SMALL ANIMAL WHOLE BODY COUNTER
FOR LIVE ANIMALS
小动物全身计数器
活体动物
Model # LIVE-1**



LIVE-1

COUNTING CHAMBERS

计数电离室

Consists of a 12" diameter cylinder with horizontal axis roughly 30" long, and mounted to a base. The animal chamber is then 6" in diameter by 6" long. Ventilation ports are provided. A drawer in the side of shield provides a 4 3/4" x 4" opening⁽¹⁾ to insert and remove the animal. The chamber has a removable stainless steel liner for ease of cleaning, and a removable grating is provided for the animal to stand on, and for the droppings to fall through. The thin metal windows on the two detectors are protected by metal grills with a high percentage of open area. Each detector is surrounded by 2" of lead on all sides. The detectors are also recessed for their own protection and to minimize effects of animal position on the count rate.

包括一个直径 12"的圆柱体带大约 30"长水平轴线，安装在一个底座中，动物试验容器直径 6" x 6"长。提供通风口，护罩里面的抽屉带一个 4 3/4" x 4"开口以便放入或移除动物。容器带可移除的不锈钢内衬以便清洁，内装一个可移除格子用于动物站立和排泄物清空，两个探头上的薄金属窗由高比例开放面积格栅保护，每个探头全方位 2"铅，探头内嵌以自我保护和减少动物因站位对计数率的影响。

DETECTORS

探头

Two each 3" diameter x 1" thick NaI crystals with a thin window 0.020" (0.5mm) to accept low energy radiation such as that from I-125 as well as higher energies. Each detector is optically coupled via a light pipe to a high quality photomultiplier tube.

Counting efficiencies excluding geometry are approximately:

- Approx. 36% for Zn-65 at 1.1MeV X-rays.
- Approx. 36% for Fe-59 at 1.1 & 1.3MeV Gammas.
- Approx. 85% for Tc-99m at 0.14MeV Gammas.



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

tagold@nwc.net

WWW.TECH-ASSOCIATES.COM

Divisions of



US NUCLEAR CORP

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两个直径 3"x 1"厚 NaI 晶体带 0.020"薄窗以接受低能辐射如 I-125 和较高能量。每个探头通过一根光学管光学耦合到一个高质量光电倍增管，不考虑角度计数效率为：

- 能量 1.1MeV X-rays, Zn-65 接近 36%
- 能量 1.1 & 1.3MeV γ , Fe-59 接近 36%
- 能量 0.14MeV γ , Tc-99m 接近 85%

ELECTRONICS: FS-5T2D (all solid state)

A precision automatic lab scaler incorporating a single channel analyzer which can be used to keep the background count rate from natural radiation very low. The single channel analyzer also allows the count of one isotope to the exclusion of another.

All of the above are tested as a system at the factory.

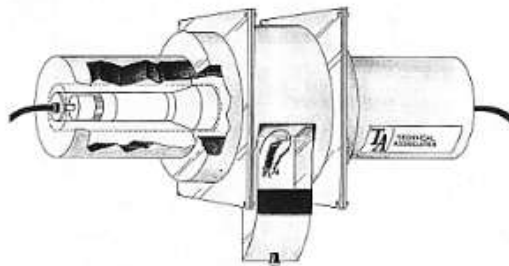
电子学：FS-5T2D（全固态）

精确自动实验室定标器，包括一个用于保持低本底单道分析器，单道分析器只允许一种同位素计数而排除其它。以上系统工厂测试。

OPTIONS: (Available upon Request)

选购：(根据要求提供)

- ⁽¹⁾Larger chamber and loading port are available upon request.
- 较大容器和装卸口
- Other window material and thicknesses.
- 其它窗材料和厚度
- Thinner or thicker lead (Pb) shield.
- 更薄或更厚铅屏



LIVE-1 Schematic



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