

FAST, ULTRA-SENSITIVE PORTAL MONITOR

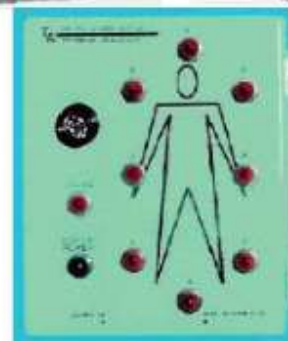
快速极灵敏便携式监测器

MODEL # PPM-27S

型号# PPM-27S

FEATURES: 特点

- INTELLIGENT MICROPROCESSOR CONTROLLED SYSTEM
- 智能微处理控制系统
- FULL DYNAMIC BACKGROUND SUBTRACT
- 全动态本底扣除
- OUTSTANDING SENSITIVITY TO FISSION PRODUCTS SPECTRUM
- 对裂变产物能谱测量灵敏度出色
- ADVANCED "N OF 8" DESIGN
- 先进的“N OF 8”设计
- 8 CHANNELS OF COUNTING ELECTRONICS
- 8 检测道计数电子学（探头）
- AUDIO AND VISUAL RADIATION ALARMS
- 声光辐射报警
- HIGH BACKGROUND ALARM
- 高本底报警
- LOSS OF SIGNAL LIGHTS
- 信号丢失指示灯
- FAST FLOW THROUGH OF PEOPLE
- 人员快速通过
- EASY TO READ ALARM PANEL FOR MOUNTING ON WALL OR PORTAL
- 安装在墙上或入口处容易识别报警前板
- WEATHER RESISTANT PORTAL AND FOOT DECK
- 防雨入口和脚踏板
- CHOICE OF PORTAL FRAMES
- 上乘入口钢架
- BATTERY BACKUP.
- 备用电池



APPLICATION: The PPM-27S examines people from head to toe for radioactive contamination. If placed within a passageway, a large throughput can be attained with a minimum amount of supervision.
应用: PPM-27S 从头到脚检查辐射污染, 如果放在走廊里, 不需要大量监视工作人群通过效率却很高。

DESCRIPTION: The PPM-27S consists of a walk through portal frame and separate table top, (also rack mountable) electronics. A cabinet to hold electronics is provided. Eight (8) extra large plastic scintillation radiation detectors and one motion detector, sense contamination on a person as he/she

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crosses the threshold. The radiation detectors are grouped into eight separate channels. This feature makes it easier to locate and remove contamination, and increases sensitivity by lowering the background count per channel.

描述: **PPM-27S** 配备桥门通道, 一个独立台面(可架安装)和电子学, 提供装电子学的机柜。8个特别大塑料闪烁辐射探头和一个运动探头, 当人员通过门廊时识别人身上污染。辐射探头集中在8个独立通道中, 此功能更容易锁定并排出污染, 并且通过降低每道本底计数提高灵敏度。

When unoccupied, the **PPM-27S** averages background radiation over 20 second interval. A first-in-first-out shift register updates the background data every 0.2 seconds. When the portal is occupied the electronics compare the background plus 1, 1.4, or 2 times the background's standard deviation, to the personnel count. This comparison is made every 50, 100, or 200 milliseconds depending upon the setting of the front panel sample time switch. The level of confidence ("N of 8") can be set for each channel using the eight position switches on the electronics console. Separate alarms are provided for each channel.

未使用时, **PPM-27S** 将本底辐射平均为 20 秒间隔, 先进先出顺序每两秒记录更新本底数据。当人员站在门廊时, 电子学将人员计数与本底计数加上本底标准偏差的 1, 1.4, 或 2 倍进行比较。根据前板样品时间旋钮设定, 这种比较每 50, 100 或 200 千分之一秒发生一次。使用电子学操作台上的 8 位旋钮, 设定每道置信度。每道提供独立报警。

SPECIFICATIONS: 规格

SENSITIVITY: 灵敏度

- **Beta:** 200 nanoCuries - 90% confidence level, Thallium - 204 passing through center-line at 3 ft/sec, gamma background of 100 μ R/hr.
- β : 200nCi-90%置信度, 铊-204 以 3 ft/sec 通过中心线, 100 μ R/hr 的 γ 本底
- **Gamma:** 200 nanoCuries - 90% confidence level, Cs¹³⁷ passing through center-line at 3 ft/sec, gamma background of 100 μ R/hr.
- γ : 200nCi-90%置信度, Cs¹³⁷ 以 3 ft/sec 通过中心线, 100 μ R/hr 的 γ 本底

Meets DOE requirement to detect 1/2 gram of plutonium in 3mm brass shield and gammas of U²³⁵, 20% enriched in 3mm brass shield.

符合 DOE 检测 3mm 铜屏蔽中 1/2 克铀, 3mm 铜屏蔽中 20%浓缩的 U²³⁵ 中 γ 的要求。

BETA-GAMMA DETECTORS: β γ 探头

- **Model:** PPS-41.
- **型号:** PPS-41.
- **Sensitive area:** 96 square inches per detector.
- 敏感区: 每个探头 96 平方英寸
- **Operating Voltage:** Typically 800 to 1000 Volts.
- 操作电压: 典型 800 - 1000 V



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- **Window Thickness:** 5 mg/cm² (other thicknesses **Optional**).
- **窗厚度:** 5 mg/cm² (其它厚度可选购)

PORTAL FRAME AND FOOT DECK: 门廊钢框和脚踏板

- **Frame Option:** F-36
- 门框选择: : F-36
- **Description:** Walk Straight Through.
- **描述:** 直接走过
- **Number of Detector Channels:** 8.
- **探测道数量:** 8
- **Inside Dimensions:** 36" W x 80" H.
- **内部尺寸:** 36" W x 80" H.
- **Shielding:** 1 1/2" lead equiv. on 3 sides of each detector.
- **屏蔽:** 每个探头三面 1 1/2"铅
- **Weight:** 2500lbs.
- **重量:** 2500 磅
- **Shipping Weight:** 2900lbs.
- **装载重量:** 2900 磅

ELECTRONICS CHASSIS:

电子机箱

- **Front Panel Controls:**
- **前板控制**
 - Sigma Multiplier (each channel): 1, 1.4, 2.
 - 西格玛乘数 (每道): 1, 1.4, 2.
 - N of 8 Alarm Set (each channel): 1, 2, 3, 4, 5, 6, 7, 8.
 - “N of 8” 报警设定 (每道): 1, 2, 3, 4, 5, 6, 7, 8.
 - Sample Time: 50, 100, 200 milliseconds.
 - 样品时间: 50, 100, 200 毫秒
 - Overflow Alarm (for background): 10, 20, 40, 80.
 - 过流报警: 10, 20, 40, 80.
 - Reset push button.
 - 重设按钮
- Alarm Disable.
- 解除报警
- **Rear Panel Controls:**
- **后板控制:**
 - Power on-off.

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- 电源开关
High Voltage Adjust: 0-2000 (0-3000 V **Optional**)
- 高压调节: 0-2000 (0-3000 V 可选)
- **Front Panel Indicators:**
前板指示器:
- Average Background Display (each channel): Two digits.
平均本底显示 (每道): 2 位数
- N of 8 Display (each channel): one digit.
N of 8 显示 (每道): 1 位数
- Contamination Alarm LED (each channel): red.
污染报警 LED (每道): 红色
- No Signal Alarm LED (each channel): yellow.
无信号报警 LED (每道): 黄色
- **Rear Panel Indicators:**
后板指示器
- Power on/off lamp: red.
电源开关: 红色
- High Voltage Meter, 0-2000 volts, (0-3000V **Optional**).
高压表: 0-2000 v, (0-3000V 可选).
- **Rear Panel Outputs:** Remote Alarm Output Terminals (each channel plus common bell and lamp) Switched AC outlet.
后板输出: 远程报警输出终端 (每道加上铃和灯) 带开关 AC 插座。
- **Common Alarms Indicating Contamination:** 2000Hz alarm and flashing red beacon.
普通报警指示污染: 2000Hz 报警和闪烁红灯
- **Power Requirements:** 110 V, 60 Hz, 1 A (220 V and 50 Hz **Optional**).
电源要求: 110 V, 60 Hz, 1 A (220 V 和 50 Hz 选择).
- **Dimensions:** 19"W x 20"D x 11"H.
尺寸: 19"W x 20"D x 11"H.
- **Weight:** 45 lbs.
重量: 45 磅
- **Shipping Weight:** 65 lbs.
装运重量 65 磅
- **ALARM PANEL:** Wall mountable, silhouette with lights indicating location of contamination, plus sonalert and flashing red light.
报警盘: 壁装, 灯形指示污染位置, 外加发声器和闪烁红灯。

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