

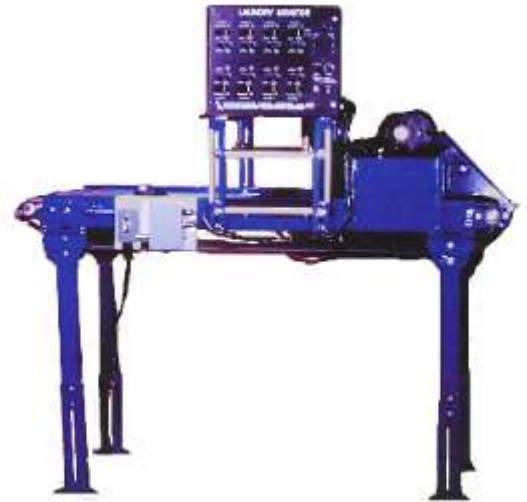
LAUNDRY MONITORING SYSTEM

洗衣房监测系统

MODEL # LIM-21GFA

FEATURES: 特点

- FULL DYNAMIC BACKGROUND SUBTRACT
- 全动态本底扣除
- OUTSTANDING SENSITIVITY TO FISSION PRODUCTS SPECTRUM
- 对裂变产物能谱灵敏度出色
- ADVANCED N OF 8 DESIGN
- 先进的 N OF 8 设计
- 8 CHANNELS OF COUNTING ELECTRONICS
- 8 道 计数电子
- AUDIO AND VISUAL RADIATION ALARMS
- 视听辐射报警
- HIGH BACKGROUND ALARM
- 高本底报警
- LOSS OF SIGNAL LIGHTS
- 信号损失报警灯
- FAST FLOW THROUGH OF LAUNDRY
- 衣物快速通过
- EASY TO READ ALARM PANEL FOR MOUNTING ON WALL OR PORTAL
- 易读壁装或入口处安装的报警仪表盘



LIM-21GFA

APPLICATION: The LIM-21GFA examines each garment for radioactive contamination. A large throughput can be attained with a minimum amount of supervision.

应用：LIM-21GFA 检测每件衣服辐射污染。无需过多监视可获得高检测率

DESCRIPTION: The LIM-21GFA consists of conveyer belt with eight detectors and separate table top, (also rack mountable) electronics. A cabinet to hold electronics and counting gas bottle is optional. Eight gas flow radiation detectors and one motion detector, sense contamination on an item of clothing. The eight radiation detectors are divided into eight separate channels, one for each detector. This feature makes it easier to locate and remove contamination, and increases sensitivity by lowering the background count per channel.

描述：LIM-21GFA 配备带 8 个探头的传送带和一个单独桌面，（可架装的）电子学 .可选购装电子学和计数气体瓶的机柜。8 个流气式辐射探头和一个运动探头，检测衣物上辐射物，8 个辐射探头分为 8 个独立的检测道，设计容易锁定并移除污染，通过降低每道本底计数提高计数率。

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When unoccupied, the **LIM-21GFA** averages background radiation over 20 second interval. A first-in-first-out shift register updates the background data every 0.2 seconds. When the belt is occupied, the electronics compare the background plus 1, 1.4, or 2 times the background standard deviation, to the laundry radiation 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.

当不工作时，LIM-21GFA 每 20 秒平均计数本底辐射。按照先进先出的顺序每 0.2 秒记录更新本底。当传送带满载时，电子学将本底与其 1,1.4 或 2 倍的本底标准偏差的和与衣物辐射计数进行比较，这种比较根据前板样品时间旋钮设定，每 50, 100,200 毫秒进行一次，使用电子操作台的 8 个位置的旋钮可设定每个检测道的置信度（N of 8）

SPECIFICATIONS: 规格

- **SENSITIVITY:** 80 nanoCi Cs¹³⁷ is detected with 95% confidence in 0.4 sec.
- **灵敏度:** 0.4 秒内 95%置信度测到 Cs¹³⁷ 为 80 nanoCi
- **GAS FLOW DETECTORS: LIM-21GFA.**
- **流气式探测器:** LIM-21GFA
- **Sensitivity:** 20% of 4Pi Cs¹³⁷ Betas. Detectors can detect lower energy betas down to .05 MeV.
- **灵敏度:** 4 π Cs¹³⁷ 贝塔 20%，探头可探测较低能量 β 到.05 MeV
- **Sensitive area:** 400 square centimeters per detector.
- **有效面积:** 400 平方厘米每个探头
- **Operating Voltage:** Typically 1900 V with P-10 gas or 2800 V (optional) with Propane.
- **操作电压:** 典型 1900V，带 P-10 气体或 2800V（选购）带丙烷
- **Window Thickness:** 5 mg/cm² (other thicknesses optional).
- **窗厚度:** 5 mg/cm²（可选其它厚度）
- **Optional: LIM-21GFAT LIM-21GFAT** for enhanced gamma sensitivity.
- **选购:** 提高伽马灵敏度



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CONVEYOR SPECIFICATIONS:

传送带规格

- **Conveyor Speed:** Continuously variable, user controlled. 150 mm/sec typical.
- **速度:** 可连续改变, 用户控制, 典型 150 mm/sec
- **Useful Width:** 24" (610 mm).
- **有用宽度:** 24" (610 mm).
- **System Weight:** 175 kg plus shielding.
- **系统重量:** 175kg 加屏蔽
- **Conveyor System:** 2 each conveyors.
- **传输系统:** 2 个传输带
 - Belt #1: is 6 ft. long, belt carries clothes under detector.
 - 1 号带: 6 英尺长, 传送衣物在探头下通过
 - Belt #2: is 4 ft. long, reversible direction conveyor, drops CLEAN clothes to one side and drops CONTAMINATED clothes on the other side.
 - 2 号带: 4 英尺长, 可逆方向传送带, 将“干净”衣物投进一侧,
 - “污染”衣物投进另一侧
- **Environmental Conditions:**
- **环境条件**
 - 32°F to 122°F, (0° to 50°C).
 - 10% to 95% relative humidity, non-condensing.
 - **相对湿度** 10% - 95%, 无冷凝
- **Power Supply:** 100-120 VAC or 220 V 50/60 hz with UPS.
- **电源:** 100-120 VAC 或 220 V 50/60 hz 带 UPS.

ELECTRONICS CHASSIS:

电子学机箱

- **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 (针对本底) 10, 20, 40, 80.
 - Reset push button.



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- 重置按钮
Alarm Disable.
- 报警设定
- **Rear Panel Controls:** Power on-off
- 后板控制：电源开关
- High Voltage Adjust: 0-2000 V for P-10 or Geiger gas.
(0-3000 V for propane optional)
- 高压调节：P-10 或盖革气体为 0-2000 V（丙烷为 0-3000V）
- **Front Panel Indicators:** Average Background Display (each channel): Two digits. N of 8 Display (each channel): one digit. Contamination Alarm LED (each channel): red. No Signal Alarm LED (each channel): yellow.
- **前板指示：**平均本底显示（每道）：两位数。N of 8 显示（每道）：一位数。污染报警 Led（每道）：红色。无信号报警 LED（每道）：黄色
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- **Rear Panel Indicators:** Power on/off lamp: red.
- 后板指示：电源灯开关：红色
High Voltage Meter, 0-2000 volts, (0-3000V **Optional**).
- 高压表，0-2000V，（0-3000V 选购）
- **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，外加普通铃声和灯）AC 输出开关
- **Alarms Indicating Contamination:** 2000Hz alarm and flashing red beacon.
- 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 选购).
- **Dimensions:** 19"W x 20"D x 11"H - Electronics Console.
- 尺寸：19"W x 20"D x 11"H，电子控制台
- **Weight:** 45 lbs - Electronics Console.
- 重量：45 lbs-电子控制台
- **Shipping Weight:** 65 lbs - Electronics Console.
- 邮寄重量：65 lbs-电子控制台
- **ALARM PANEL:** Wall mountable, silhouette with lights indicating location of contamination, plus sonalert and flashing red light.
- 报警面板：壁装，亮灯显示出污染位置，加蜂鸣器和闪烁红灯
- **GAS FLOW SYSTEM:** Flow meter and micro metering valve are included. Gas tank and pressure regulators are normally supplied by user. Timer and solenoid operated valve is available as an option to further minimize gas usage.
- 流气系统：包括流量表和微计量阀。通常用户提供气箱和压力阀，可选购供应定时器 and 电磁阀以进一步减少气体使用



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