

PORTABLE IODINE MONITOR

便携式碘监测器

Model ~ FR-PIB – Total Airborne Activity 总气溶胶活度

Model ~ FR-P11 & FR-P11-PB

FEATURES: 特点

- DETECTS 5×10^{-11} $\mu\text{Ci/cc}$ IN 30 MINUTES
- 30 分钟探测到 5×10^{-11} $\mu\text{Ci/cc}$
- BUILT-IN TIMER
- 内置计时器
- LINE OPERATED
- AC 电源线供电
- USER SETTABLE READ-OUT
- 用户设定读出单位
- INTEGRATED EXPOSURE
- 综合辐射
- CAN DRAW AIR FROM HOOD OR ROOM
- 可以从排风罩或房间抽气样
- QUICK CHANGE FILTER
- 快速更换过滤器
- OPTIONAL: RS-232 COMPUTER &/OR DATA LOGGER INTERFACE
- 选项: RS-232 电脑接口或/和数据录入器接口



FR-PIB

APPLICATION: 应用

The **FR** Series Air Monitor assures Safety against airborne radioactivity contamination by means of constant check and optional record capability. It provides integrated exposure information.

FR系列空气监测器通过连续检测和录入功能-监测气溶胶辐射污染，确保安全；此仪器提供综合辐射信息。

The **FR** Series is sensitive and versatile. Although designed as an industrial workplace and hospital breathing air measurement system, it may be used to monitor fume hoods and stack effluent down to EPA levels.

FR系列仪器灵敏，用途广；尽管为工业环境和医院呼吸空气测量设计，但是可用于监测排风罩和烟道流出物到EPA要求标准。



FR-P11-PB



TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY

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Model ~ FR-PIB – Total Airborne Activity 总气溶胶活度

Model ~ FR-PII & FR-PII-PB

DESCRIPTION: 描述

- The **FR-P** Series uses standard charcoal filters in TA's unique quick change, no leak holders to trap any airborne radio-iodine.
- FR-P系列使用标准活性炭过滤器，快速更换密封过滤装置可捕获任何气溶胶辐射碘。
- The filter is under constant surveillance via a GM (**FR-PIB**) or scintillation (**FR-PII**) detector.
- 过滤器被GM探头(**FR-PIB**)或闪烁探头(**FR-PII**)连续监测
- Air is drawn by a high volume pump through a flow meter and exhausted through a short three-foot hose.
- 大容量泵通过流量计抽进空气，然后通过3英尺长管子排出
- An Inlet and outlet hose may be attached to allow monitoring of hoods, glove boxes, stacks, etc.
- 进气管和排气管可连接到排风罩，手套箱，烟道等以进行监测
- Time is controlled by a timer wired into the pump circuit.
- 时间由泵线路相连的计时器控制
- The unit is completely self-contained and portable.
- 此仪器完全一体便携
- Complete with 10 filters
- 带10片过滤网



LAM-SCA ELECTRONICS

SPECIFICATIONS:

规格

ELECTRONICS:

电子学

Electronics:

LAM_SCA – AC & Rechargeable Batteries

电子学:

可充电电池

Digital Readout:

6 digit LCD Rate, 8 digit integrate.

数字读数:

6位LCD计数率，8位总计数

Time Base:

Crystal controlled 1-10,000 seconds, user settable.

时基:

晶体控制1-10,000 秒，用户设定

Display Modes:

Rate, Integrate.

显示模式:

计数率，总计数

Range:

1×10^{-13} to 1×10^{-7} μ Ci/cc (or Ci/m³) (Depends on count time)

量程:

1×10^{-13} to 1×10^{-7} μ Ci/cc (or Ci/m³) (取决于计数时间)

Audio Alarm:

Piezo electric sounder with mute switch.

声音报警:

压电音带静音开关



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Single Channel:

3 Switch Selectable Windows: 2 preset (resettable) window positions plus one "variable".

单量程: 3个预设窗: 2个预设(可重设)窗状态加一个“可变窗”

Analyzer/Discriminator: 10-turn, 1000 division pot for each threshold.
10-turn, 1000 division pot for window width.

分析仪/鉴别器: 每个阈值带10转, 1000分度分压计
每个阈值带10转, 1000分度分压计

SYSTEM:

系统

Air Pump: High Flow Pump and Filter holder.

气泵: 高流量泵和过滤器装置

Air Flow Rate: 227 liters/min

流量:

Filters: 10 pack charcoal filter papers
10 pack silver activated charcoal filter cartridges
for Model **FR-PII-PB** only.
(Can also use membrane, paper or glass fiber filters for particulates only.)

过滤器: 10包活性炭过滤纸
10包载银活性炭过滤芯(仅限Model **FR-PII-PB**)
(粒子可以使用过滤膜, 滤纸和玻璃纤维)

System Power: 115 V 50-60 Hz 2A (**Optional:** 230 V 50-60 Hz).

系统电源:

Case: Electronics housed in enameled aluminum housing; handle included.

外箱: 电子学封装在抛光铝外箱内, 包括把手

WEIGHT & DIMENSIONS:

重量和尺寸

Dimensions: 17"W x 13"H x 13 1/2"D Excluding pump and detector assembly.

尺寸: 17"W x 13"H x 13 1/2"D 不含泵和探头组件.

Detector Assembly: 5"W x 10"H x 6"D.

探头组件:

Pump Assembly: 11"W x 13"H x 11"D.

泵组件:

Weight: See Following Chart

重量: 见以下表格

OPTIONAL:

可选项

Shielding: Detector shielding.

屏蔽: 探头



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Alarm: Settable 2000 Hz beeper and red flasher. Interface - RS-232 (Model MCC-23).

报警: 可设定2000 Hz蜂鸣音和红色闪灯, 接口- RS-232 (Model MCC-23).

Serial Printer.

Easy Procedure for Use: 易操作程序

Flow-rate and air sample time have been preset (USER can change those if desired).

流量和气样时间已经预设 (用户可根据需要设定)

1. Turn on instrument.
启动仪器
2. Put in clean filter.
放入干净过滤器
3. Make Test Count (pump Off).
进行试验计数 (关闭泵)
4. Turn on Pump and start counter.
打开泵并启动计数器
5. Come back in 30 minutes. (pump and counter have automatic timer SHUT-OFF)
30分钟后返回 (泵和计数器定时器自动关闭)
6. Digital display reads out the airborne I-131 deposited on the filter
显示滞留在过滤器上的气溶胶I-131数字读数

NOTE: 注

- A. Filter must be clean at start of each new air sample.
每次采新气样时过滤网必须干净
- B. User can change sample time and/or flow-rate but must enter new scale factor.
用户可改变采样和/流量时间, 但必须输入新标定常数
- C. User can change readout units.
用户可改变读数单位



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Model:	FR-PIB	FR-P11	FR-P11-PB
Portability 便携性	Portable 是	Portable 是	Portable 是
DETECTOR 探头	T-1190 GM Tube	PGS-3I	PGS-3
Size/Material 尺寸/材料	2" dia. Pancake	1" x 0.8" NaI(Tl)	1" x 1" NaI(Tl)
Window 窗	Mica 1.5 - 2.0 mg/cm ²	Aluminum 5mil	Aluminum 10-20mil
Detects 探测	Beta, Gamma Removal of Alpha Shield allows detection of Radon Alphas.	Low + Middle Gamma.	Gamma
Iodine 碘	I-131	I-125, I-129, I-131	I-131
Detects Particulates 是否探测粒子	Yes	Optional	Optional
Detects Aerosol & Reactive Gases 探测气溶胶&辐射气体	Yes	Yes	Yes
Filter 过滤器	Charcoal Filter Paper 2" dia.	Charcoal Cartridge 2.5" dia.	Charcoal Filter Paper 2.5" dia.
Iodine Sensitivity: (30 min) 碘灵敏度 (30分钟)	$5 \times 10^{-11} \mu\text{Ci/cc}$	$1 \times 10^{-10} \mu\text{Ci/cc}$	$5 \times 10^{-12} \mu\text{Ci/cc}$
Public Release: (1 x 10⁻¹⁰ μCi/cc) 公共排放标准	1/2 x Public Release	Public Release	1/20 x Public Release
WEIGHTS: 重量			
Electronics 电子学	5 lbs with Batteries	5 lbs with Batteries	5 lbs with Batteries
Detector + Filter 探头+过滤器	2 lbs	4 lbs	15 lbs
Pump 泵	20 lbs	20 lbs	20 lbs
Shielding 屏蔽	None	None	1/2" lead - Pb
Electronics 电子学	LAM-SCA	LAM-SCA	LAM-SCA



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