

PET OR IODINE MCA AIR MONITOR
GAS AND PARTICULATE
MODEL # FM-9-MCA
PET/碘 MCA 空气监测器
气体和粒子

FEATURES: 特点

- 气溶胶浓度 AIRBORNE CONCENTRATION
- 综合辐照 INTEGRATED EXPOSURE
- 高灵敏度 HIGH SENSITIVITY
- 实时报警 REAL TIME ALARM
- 多通道分析仪 MULT-CHANNEL ANALYZER
- 便携 ORTABLE
- 标准 FM-7/9 模块 STANDARD FM-7/9 MODULES
- 可以从风柜，排烟道等抽取气体 CAN DRAW AIR FROM HOOD, DUCT, ETC.
- 快速更换滤芯 QUICK CHANGE FILTER CARTRIDGE
- 可调节流量 REGULATED AIR FLOW
- 电脑接口-USB 或以太网 COMPUTER INTERFACE – USB OR ETHERNET
- 数据录入器-内置 DATA LOGGER - BUILT-IN



APPLICATION:应用

The FM-9-MCA Air Monitors incorporates Multi-Channel analyzer (MCA) to enhance and to help analyze which nuclides are present in the room air or stack gases. They assure safety against airborne radioactivity contamination by means of constant check with alarm and record capability. It provides integrated exposure information and can provide hard copy via external printer or computer. It is a complete system but may be expanded per need with modules of the FM-9series. The FM-9-MCA is more sensitive and versatile version of the broadly used long time standard, the FM-5-ABNI.They may be used to monitor stack effluent down to EPA levels as well as hoods, glove box or workplace air.

FM-9-MCA 空气监测器配有 Multi-Channel (多道) 分析仪 (MCA)，以便帮助分析房间内或烟道中气体含有哪种核素，通过连续检测报警与记录功能监测气溶胶辐射污染，以确保安全。此仪器提供综合辐照信息，通过外接打印机或电脑提供硬拷贝。此仪器为一体机，但通过添加模块 FM-9 系列可拓展功能。FM-9-MCA 比广泛使用的标准版本 FM-5-ABNI 更灵敏功能更多。此仪器可用来测量烟道，风柜，手套箱等气体排放物到 EPA (环保部门) 水平。



DESCRIPTION: 描述

The FM-9-MCA uses a standard charcoal filter in TA's unique quick change, no leak holder to trap any airborne Radio Iodine. The filter is under constant surveillance via a thin window scintillation detector. Air is drawn by a regulated pump through a three-foot inlet hose and exhausted via a flow meter through another three-foot hose. These may be extended to allow monitoring of hoods, glove boxes, stacks, etc. Time is recorded by an odometer type timer wired into the pump circuit. The unit is completely self-contained and portable. Complete with 10 filter cartridges.

FM-9-MCA 使用标准 TA 独特快速更换滤网，密封托架，捕获任何气溶胶辐射物。滤网通过带薄窗闪烁探头被连续监视。空气由调节泵通过一根 3 英尺长入气管抽进；流经一块流量表，通过另一根 3 英尺长软管排出。这些软管可延长以便监测风罩、手套箱、烟囱道等。时间由一个连接到泵电路的里程表式计时器记录。此装置完全一体便携。带 100 片滤纸。

SPECIFICATIONS 描述

Sensitivity: Limit of sensitivity and (as Iodine 131 or positron emitter) at 120 liters/minute air flow rate is $4 \times 10^{-13} \mu\text{Ci/cc}$ integrated over an 8 hour period, or $8 \times 10^{-14} \mu\text{Ci/cc}$ for a 40 hour period. This corresponds to $2 \times 10^{-10} \mu\text{Ci/ml}$ minute exposure, which is equal to 0.6% of the California Safety Code Title 17 and USNRC Title 10 limit for 40 hour weekly exposure to most hazardous beta and/or gamma emitter in absence of Ac227.

•Detector: 2" diameter probe with thin window, thin crystal, scintillation detector, Model PGS-3I for sensitivity to ALL iodines and positron emitters.

灵敏度：在流量为 120 升/分钟时，综合时段超过 8 小时，灵敏限值为 $4 \times 10^{-13} \mu\text{Ci/cc}$ ，或 40 个小时值为 $8 \times 10^{-14} \mu\text{Ci/cc}$ ，相当于 $2 \times 10^{-10} \mu\text{Ci/cc}$ 每分钟辐照，这数值等于加州安全准则 17 条和 USNRC 第 10 条对于在没有 Ac^{227} 出现情况下每周 40 小时暴露在最危险的 $\beta\gamma$ 发射体下的 0.6%。

•Electronic Modules Include:

电子学模块包括：

•Power Supply and MV-5.12.24.

电源和 MV-5.12.24.

•MAC-5: Air Control Timer; Low Flow Alarm Flow-meter

MAC-5：空气控制定时器，低流报警流量表

•MCA-9: Multi Channel Analyzer

MCA-9：多道分析仪

•MCT: On Board computer with color monitor

MCT：带彩屏车载电脑



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- M μ P: Imbedded processor
M μ P : 内嵌式处理器

- Pump: Muffler and trap included. 115V 60Hz 2A. (230 V 50-60 Hz optional).
泵 : 包括消音器和托架。115V 60Hz 2A. (230 V 50-60 Hz 选购).

- 屏蔽 : 样品和探头周围 1"铅 Shielding:1" lead about sample and detector.
- Range:1 x 10¹³ to 1 x 10⁷ μ Ci/cc or (Ci/m³) depends on count time and flow rate.
量程 : 1 x 10¹³ - 1 x 10⁷ μ Ci/cc 或(Ci/m³)视计数时间和流量而定。

- 报警 : 可设定。2000 Hz 蜂鸣音和红色闪灯 Alarm: Settable. 2000 Hz beeper and red flasher.

- 响应时间 : 可设定 1 秒-40 小时 Response Time: Settable 1 second to 40 hours.

- Readout: Color 7" LCD Monitor shows status, alarms, concentration and total radiation values.
读出 : 7"彩屏显示状态, 报警, 浓度, 总辐射值

- Power: 115V, 50-60 Hz (230 V optional).
电源 : 115V, 50-60 Hz (230 V 选项).

- Flow Rate: Regulated. Normally set at 70 liters/min.
流量 : 调节, 正常设定 70 升/分钟

- Filters: Includes package of 10 silver activated charcoal filter cartridges Model CF-1.
Can also use membrane, paper or glass fiber filters for particulates only.
滤网 : 包括一包 10 片载银活性炭滤芯, CF-1
可以使用滤膜, 滤纸, 玻璃纤维, 只用于尘粒。

- Case: Electronics housed in enameled aluminum case; carry ing handles optional.
外箱 : 电子学封装在铝箱, 选购提手

- 尺寸 imensions:

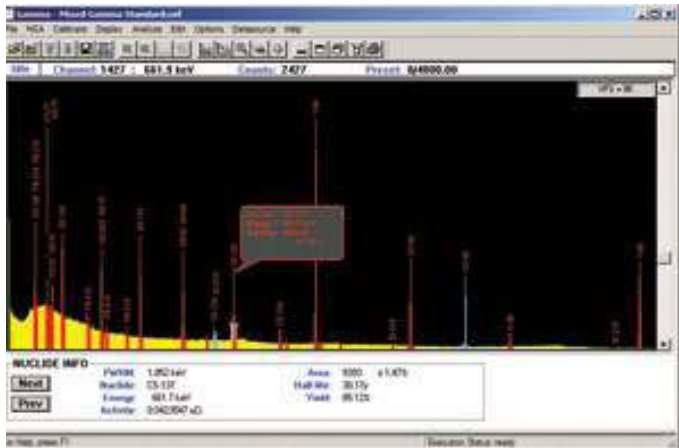
Excluding pump and detector assembly: 20"W x 13"Hx 18" D.
不包含泵和探头组件 : 20"W x 13"Hx 18" D.
Detector assembly 5"W x 10"H x 6" D.
探头组件 : 5"W x 10"H x 6" D.
Pump assembly 8"W x 8"H x 14"D.
泵组件 : 8"W x 8"H x 14"D.

- Accessories: Filter: Free flowing silver activated charcoal disposable cartridge.
配件 : 滤网 : 高效载银活性炭可分解滤芯

- 装运重量 : 84lbs. Shipping Weight: 84lbs.



Description 描述	FM-9-MCA
Read-out Units (Typical) 典型读出单位	Bq/m ³ μCi/cc
Measures 测量	Airborne Concentration 气溶胶浓度
Up-graded Hardware 升级硬件	Calculations by Imbedded Processor On Board Data Logger 内嵌式处理器 机载数据录入器
Available Options 可供选择	Optional Electronic mass flow-meter 电子质量流量计



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