

# PET OR IODINE AIR MONITOR GAS AND PARTICULATE

MODEL # FM-7-ABNI

MODEL # FM-9-ABNI

## FEATURES:

- HIGH SENSITIVE
- REAL TIME ALARM
- LINE OPERATED
- PORTABLE
- INTEGRATED EXPOSURE - FM-7ABNI
- AIRBORNE CONCENTRATION – FM-9-ABNI
- STANDARD FM-7/9 MODULES
- CAN DRAW AIR FROM HOOD, DUCT, ETC.
- QUICK CHANGE FILTER CARTRIDGE
- REGULATED AIR FLOW
- RS232 COMPUTER INTERFACE
- OPTIONAL DATA LOGGER



**APPLICATION:** The **FM-7 & FM-9- ABNI** Air Monitors 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-7/9** series. The **FM-7 & 9- ABNI** are the **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.

**DESCRIPTION:** The **FM-7 & 9- ABNI** 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.

## •SPECIFICATIONS

- 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 Ac 227.
- Detector:** 2" diameter probe with thin window, thin crystal, scintillation detector, Model PGS-31 for sensitivity to ALL iodines and positron emitters.
- Electronic Modules Include:**
- Power Supply and MV-5.12.24.**
- FIL-7DP-** Programmable Scaler with RS-232 Computer Interface (internal).
- MAC-5** Air Control Timer; Low Flow Alarm Flowmeter
- MGA-5:** Single Channel Analyzer

**TA** TECHNICAL ASSOCIATES

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GAS AND PARTICULATE  
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MODEL # FM-9-ABNI**

- M $\mu$ P:** Imbedded processor (FM-9-ABNI)
- Pump:** Muffler and trap included. 115V 60Hz 2A. (230 V 50-60 Hz optional).
- Shielding:** 1" lead about sample and detector.
- Range:**  $1 \times 10^{-13}$  to  $1 \times 10^{-7}$   $\mu$ Ci/cc or (Ci/m<sup>3</sup>) depends on count timer and flow rate.
- Alarm:** Settable. 2000 Hz beeper and red flasher.
- Response Time:** Settable 1 second to 40 hours.
- Readout:** 6 digit LED for programmed information plus 6 digit LCD for integrated dose.
- Power:** 115V, 50-60 Hz (230 V optional).
- Flow Rate:** Regulated. Normally set at 70 liters/min.
- 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.
- Case:** Electronics housed in enameled aluminum case; carrying handles optional.
- Dimensions:** Excluding pump and detector assembly: 20"W x 13"H x 18" D.  
Detector assembly 5"W x 10"H x 6" D.  
Pump assembly 8"W x 8"H x 14"D.
- Accessories:** Filter: Free flowing silver activated charcoal disposable cartridge.
- Shipping Weight:** 84lbs.

	FM-7-ABNI	FM-7-ABNI+ USER'S PC	FM-9-ABNI
Read-out Units (Typical)	Counts/sec Micro Curies	Bq/m3 $\mu$ Ci/cc	Bq/m3 $\mu$ Ci/cc
Measures		Airborne Concentration	Airborne Concentration
Upgraded Hardware	Standard FM-7ABNI	User PC calculates concentration from increased filter activity	Calculations by Imbedded Processor
Available options		Optional WIN-W Data Logger Software	Optional Electronic mass flowmeter

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