

BETA/GAMMA AIR MONITOR

MODEL # FM-7-ABGN

FEATURES:

- REAL TIME ALARM
- LINE OPERATED
- PORTABLE
- INTEGRATED EXPOSURE
- STANDARD FM-5/7 MODULES
- CAN DRAW AIR FROM HOOD, DUCT, ETC.
- QUICK CHANGE FILTER CARTRIDGE
- REGULATED AIR FLOW
- RS232 COMPUTER INTERFACE



APPLICATION: The FM-7-ABGN Air Monitor assures 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-5/7 series. The FM-7-ABGN is the **more sensitive and versatile version** of the broadly used long time standard, the FM-5-ABGN. It may be used to monitor stack effluent down to EPA levels as well as hoods or workplace air.

DESCRIPTION: The FM-7-ABGN uses a standard filter in T/A's unique quick change, no leak holder to trap any airborne radioactivity. 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 100 filters.

•SPECIFICATIONS

- Sensitivity:** Limit of sensitivity (as Cs-137 at 70 liters/minute air flow rate) is 4×10^{-13} $\mu\text{Ci/cc}$ integrated over an 8 hour period, or 8×10^{-14} $\mu\text{Ci/cc}$ for a 40 hour period. This corresponds to 2×10^{-10} $\mu\text{c/ml}$ 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" probe, diameter thin window, thin crystal, scintillation detector, Model PGS-31.
- Electronic Modules Include: MVR-5R**
- Power and H.V. Bias Supply**
- FIL-7DP**
- Programmable Scaler with Integrator (Dual Display)
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- and RS-232 Computer Interface and Alarm Module.
- MGC-23**
- RS-232 Computer Interface (internal)
- MAC-5**
- Air Control Timer; Low Flow Alarm and Flowmeter
- MGA-5**

TA TECHNICAL ASSOCIATES

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MODEL # FM-7-ABGN

- Single Channel Analyzer
- WIN-W**
- Optional Data Logger Software.
- Pump:** Muffler and trap included. 115V 60Hz 2A. (230 V 50-60 Hz optional).
- Shielding:** 1" lead about sample and detector.
- Range:** 1×10^{-13} to 1×10^{-7} $\mu\text{Ci/cc}$ or (Ci/m^3) .
- Alarm:** Settable. 2000 Hz beeper and red flasher.
- Response Time:** Settable 1 second to 40 hours.
- Readout:** 4 digit LED for rate measurement and 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 100 filters. Can also use membrane or glass fiber filters.
- Case:** Electronics housed in enameled aluminum carrying case; handles included or may be rack mounted.
- Dimensions:**
 - Excluding pump and detector assembly: 17"W x 13"H x 13 1/2" 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 high retention filter paper.
- Shipping Weight:** 84lbs.

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