# **RADIATION & CHEMICAL AIR QUALITY MONITOR**

## Model ~ FM-9-MABC

#### FEATURES: CHOICE OF SENSORS NUCLEAR ONLY: ALPHA, BETA, GAMMA OR COMBINATION • **CHEMICAL** SEE CHEMICAL LIST - PER REQUEST • **BENCH TOP** DUAL COORDINATED SINGLE CHANNEL ANALYZER WINDOWS **INTERNAL DATA ARCHIVE & RETRIEVAL** QUICK CHANGE FILTERS REAL TIME OPERATION; REAL TIME ALARM LOW AIR FLOW ALARM PROVIDES LOCAL OR REMOTE SAMPLING USB PORTS (4) **OPTIONS: REMOTE ALARM** 0 **REMOTE READOUT** 0 CART MOUNTED 0

- SENSORS: THERMAL, TEMPERATURE, RH
- IP 54

#### **APPLICATION:**

Technical Associates **FM-9-MABC Air Monitor** assures safety against airborne radioactivity and chemical contamination by means of constant check with alarm and record capability. It provides integrated exposure information via computer interface.

This Air Monitor is a complete system & may be expanded per need with modules of the FM-9 series.

#### The FM-9 Air Monitor is sensitive and versatile.

It may be used to monitor work place air, stack effluent, hoods, glove box or room & environmental air.

#### **DESCRIPTION RADIATION SENSORS:**

- The FM-9-MABC Air Monitor utilizes a solid-state detector and two coordinated single channel analyzer windows.
- The system typically uses a quick change 47mm filter.
- The unit comes with an AP-3V air pump or may be plumbed to hood exhaust or in-house air system.
- Included with the FM-9-Air Monitor Series: Quiet Green Turtle Air Pump

Six feet plastic tubing





FM-9-MABC ELECTRONICS

User's Manual

A box of 100 Filters

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#### **DESCRIPTION CHEMICAL SENSORS:**

MIX & MATCH AT TIME OF ORDER - OTHER CHEMICAL SENSORS ARE AVAILABLE

CH <sub>4</sub> - Methane	SO <sub>2</sub> Sulfur Dioxide
NH <sub>3</sub> - Ammonia	O <sub>2</sub> - Oxygen
CO Carbon Monoxide	O₃ Ozone
CO <sub>2</sub> Carbon Dioxide	VOC
Cl <sub>2</sub> - Chlorine	Diesel Fumes & Particulates
NO <sub>2</sub> Nitrogen Dioxide	LEL

**OPTIONAL SENSORS:** Thermal

Temperature

**Relative Humidity** 

### **DESCRIPTION:**

## **RADIATION & CHEMICAL SENSORS:**

- The system typically uses a quick change 47mm filter.
- The unit comes with an AP-3V air pump or may be plumbed to hood exhaust or in-house air system.
- Included with the FM-9-MABC-Air Monitor: Quiet Green Turtle Air Pump
  User's Manual
  - Six feet plastic tubing A box of 100 Filters

## **ELECTRONICS:**

- The measurement rate is shown on the front panel color monitor display both rate and integrated information.
- The high-level alarm trip point is settable over the entire range.
  - ✓ When activated, the system provides an on-screen red alert and an audible alarm warning.
  - ✓ An adjustable alarm delay prevents short term transient alarms.

#### **SPECIFICATIONS RADIATION:**

Detectors:	Alph <b>a,</b> Beta Particulate (1 Each)	
Range:	Alpha:	10 <sup>-2</sup> – 10 <sup>5</sup> Bq/cm <sup>3</sup> OR 10 <sup>-1</sup> – 10 <sup>6</sup> Bq/cm <sup>3</sup>
	Beta:	3 x 10 <sup>-1</sup> – 10 <sup>5</sup> Bq/cm <sup>3</sup>
Sensitivity:	7x10 <sup>-7</sup> Bq/m <sup>3</sup> at 70 liter/min air flow with 1 hour reading.	
Energy Response:	Alpha:	2.7-10MeV
	Beta:	80 KeV – 2.5 MeV
Counting Efficiency:	24% of 2 pi with wide window setting for Pu-239 source in the filter holder.	
Response time:	2 sec. to 40 hours.	



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#### SPECIFICATIONS ELECTRONICS:

Readout: 7" Color LCD monitor built-in user data display. • **Concentration of all Selected Hazards Total Activity on Filter** User Settable Units: Radiation: cps, Bq, µCi, Bq/m<sup>3</sup>, µCi/l, DAC, DAC-hr, Chemical: ppm, ppb, LEL, etc. **Air Flow Status** • **Air Flow Rate** Alarms – Audio & Visual - User Settable. System Status; System Error Alert Change Filter Due to High Activity Build Up - User Settable. **Torn Paper Filter Error Alert** Alarm: On-screen red-light alert; audible alarm Quiet Green Turtle Pump – AP-3V included. 115V 60Hz 2Amps. Pump: Optional: 220 V 50-60 Hz. Flow Rate: 25 – 135 l/m (Normally set at 120 liters/min.) Mass Flow Meter: Real-Time air flow rate-data feeds directly into data analyzer software and Onboard computer for highest concentration accuracy eliminating need for manual adjustment of High and Low Flow Rates. Ports: Sample In & Sample Out (1 each) Purge Air Inlet (1) Calibration (2) Filters: Pack of 100 47mm filters included. 20 to 130 degrees F. (-7 to 54 degrees C.) **Temperature Range:** Finish: Baked enamel, easily cleaned.

#### WEIGHT & DIMENSIONS:

Weight: Dimensions: Electronics Assembly & Internal Detector: Pump assembly:

Pump assembly.

#### **OPTIONS:**

Remote Alarm Cart Mounted 35 lbs.

**Remote Readout** 

20"W x 13"H x 18" D. 8"W x 8"H x 14"D.

# **Oil-Less Green Turtle Pump**

