

FM-9-MABC Electronics

Radiation and Chemical Air Quality Monitor

Model - FM-9-MARC

Features

Choice of Sensors

Nuclear

 Alpha Only or Beta or Gamma or Combination

Chemical

- See List Page 2 Per Request
- 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
- Remote Readout
- Cart Mounted

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 with an optional hard copy via external computer.

This Air Monitor is a complete system and 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 and environmental air.

Description

- 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
 - User's Manual
 - Six feet plastic tubing
 - A box of 100 Filters





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Radiation and Chemical Air Quality Monitor

Model - FM-9-MABC

Description Chemical Sensors

Mix and Match at Time of Order

Chemical
 NO₂ Nitrogen Dioxide
 Methane
 SO₂ Sulfur Dioxide

Diesel Fumes and Particulates
 CO Carbon Monoxide
 VOC

- CO₂ Carbon Dioxide - Fine Particulates

Description Chemical Sensors

- Thermal
- Temperature
- Relative Humidity

Description Radiation and 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

Description 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: Alpha, Beta Particulate (1 Each)

Range: Alpha: $10^{-2} - 10^5$ Bq/cm³ OR $10^{-1} - 10^6$ Bq/cm³

Beta: 3 x 10⁻¹ - 105 Bq/cm³

Sensitivity: 7x10⁻⁷ Bg/m³ 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: 1 sec. to 40 hours.





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Radiation and Chemical Air Quality Monitor

Model - FM-9-MABC

Specifications of Chemical and Other Sensors Will Be Provided Upon User Request

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/m³, µCi/l, DAC, DAC-hr,

Chemical: ppm, ppb, LEL, etc.

- Air Flow Status
- Air Flow Rate
- Alarms Audio and 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

Pump: Quiet Green Turtle Pump – AP-3V included. 115V 60Hz 2Amps.

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 and Sample Out (1 each)

Purge Air Inlet (1) Calibration (2)

Filters: Pack of 100 47mm filters included.

Temperature Range: 20 to 130 degrees F. (-7 to 54 degrees C.)

Finish: Baked enamel, easily cleaned.

Weight and Dimensions:

Weight: 35 lbs.

Dimensions:

Electronics Assembly

and Internal Detector: 20" W x 13" H x 18" D
Pump Assembly: 8" W x 8" H x 14" D

Options:

- Remote Alarm - Remote Readout - Cart Mounted



Oil-Less Green Turtle Pump





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