

AIR MONITOR-GAS, GROSS BETA-GAMMA & ALPHA PARTICULATES

Model # BAM-3HC

DESCRIPTION:

The **BAM-3HC** series are three channel air monitors for simultaneous measuring of gross beta/gamma particulates and gaseous radioactivity and alpha particulates. Like all of the BAM-3 series, these are continuous duty, high capacity, rugged skid or caster-mounted systems. Electronics are microprocessor with color LCD display. Also preamps etc. are plug-in modules allowing change or addition of function as needed and allowing rapid repair by substitution of modules in the field. The modular system is covered by T/A's unique exchange warranty, in addition to the full one year warranty covering all T/A products.

Shields are void free lead encased in welded steel and with stainless steel liners for a long, useful life and easy decontamination. Filters are easily changed via quick disconnect, O-ring sealed filter holder. Shield can be opened for filter change or cleaning with minimum effort. All shield connections and openings are sealed against air leaks. The air moving system is based on a high capacity air pump capable of delivering 30 cfm free air and including fine regulation in the 3 cfm to 10 cfm operating range. The entire system is mounted in a self-contained rugged cabinet and comes complete with all cabling and connectors in place ready to operate. The standard unit is operated from 115 V single phase, 60 Hz; **Optional** 220 V, 50 or 60 Hz.



The entire system is mounted in a self-contained rugged cabinet and comes complete with all cabling, connectors, and software in place, setup, and ready to operate. The standard unit is operated from 115 V single phase, 60 Hz; 220V optional, 50 or 60 Hz.

TA **TECHNICAL ASSOCIATES**

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& ALPHA PARTICULATES
Model # BAM-3HC**

SPECIFICATIONS FOR BAM-3HC

CHANNELS: Three
ACTIVITY DETECTED: Gross beta-gamma particulate, iodine, noble gas.

Activity Detected	Gross Beta-Gamma Particulate	Alpha Particulate	Nobel Gas
Filters	•2" dia. glass filter	•2" dia. glass filter	Stainless Steel Lined One Liter Chamber

•Detectors:

Particulate Beta-Gamma: 2" Pancake GM Model T-1190.

Particulate Alpha: Solid state silicon.

Gas Standard Range: 2 ea. GM Model T-1190.

Shielding: 3" lead; full 4 pi

Detector Sensitivity: Monitor is more sensitive on all channels by factors of 5 to 500 than is required by USNRC and other regulatory agencies

Particulate Beta-Gamma: 6×10^{-10} $\mu\text{Ci/ml/min}$

Particulate Alpha: 6×10^{-11} $\mu\text{Ci/ml/min}$

Gas-Standard Range: 6×10^{-7} $\mu\text{Ci/ml/min}$

Display Mode: Model **BAM-3HC** features micro-processor control and color LCD display.

Operation: When **BAM-3HC** continuous air monitor is in normal operation, the color LCD displays:

CHANNEL NAME STATUS	REALTIME AIRBORNE CONCENTRATION $\mu\text{Ci/m}^3$ (Note 1)	ACCUMULATED DOSE FOR THIS SHIFT $\mu\text{Ci-Hrs/m}^3$ (Note 1)	CONCENTRATION ALARM STATUS	ACCUMULATED DOSE ALARM
BETA-GAMMA PARTICULATE				
ALPHA PARTICULATE				
NOBLE GAS				
Other alarms:	status			

Low Air Flow _____
 Loss of Signal Beta-Gamma
 Loss of Signal Alpha
 Loss of Signal Noble Gas

MENU OPTIONS:

1. Modify shift length
2. Change filter

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PARTICULATE, AND IODINE
Model # BAM-3HC**

MENU OPTIONS:

1. Modify shift length
2. Change filter
3. Configure energies
4. Set alarms
5. Start shift
6. Save to hard drive

NOTE 1 - User can easily change engineering units at will.

NOTE 2 - High Range Gas can be adjusted to see > 10 μ Ci/ml.

Clear audio and visual alarms are provided.

•**High Voltage Supply:** Separately variable for each detector from 0 to 2000 V μ A.
Standard FM-5 modular series.

•**Color LCD Readout:** Showing both real time concentration and accumulated dose for
all 4 channels

•**Accuracy:** $\pm 10\%$ except for resolution loss and statistical variation.