

IBAC™ 2

Biological Aerosol Detector & Collector with IBAC Technology



The IBAC® 2 is a fully automated biological agent detector that alarms in less than 60 seconds when an airborne bio-threat is present. Its IBAC™ technology uses UV-Laser induced fluorescence to discriminate biological organisms from background particles, reliably detecting all four classes of bio-agents at concentrations below 100 ACPLA with low false alarm rates. The IBAC® 2 system can operate independently, as part of a network configuration to form the “first tier” of a building protection system, or via battery power module for mobile detection capability. Its four stages work together continually to monitor the environment for the presence of bio-threats, alarm upon detection, collect and preserve samples for confirmatory analysis, and transmit data to command and control centers. From long-term, fixed installations to short, mission-based tactical applications, the IBAC® 2 offers a flexible, field-ready solution for bio-aerosol monitoring.



BENEFITS

- Provides affordable, real-time warning capability for biological aerosol threats
- Most mature and widely deployed bio-trigger device on the market today
- Detects all four classes of bio-organisms: spores, vegetative, virus, and toxins
- Autonomous 24/7 operation with no consumables or regular maintenance
- Alarm automatically triggers sample collector for subsequent identification
- Alert algorithms validated for both indoor and outdoor environments
- Integrates with most facility monitoring and control systems
- Government validated with over 1,000 sensors deployed in relevant bio-monitoring applications

APPLICATIONS

- Building Protection
- Special Event Monitoring
- Mission-Based Incident Response
- Force Protection
- Mass Transit Security
- Mobile Labs
- Integrated CBRNE Systems

IBAC™ 2

DETECTOR SPECIFICATIONS

Detection Technology	UV – LIF, Excitation Wavelength = 405 nm
Power Consumption	20 Watts (normal detector operation) 75 Watts (with collector running)
Input Voltage	18-36 VDC 100–240 VAC, 50-60Hz (with AC power adapter)
Dimensions (L x W x H)	9.5 x 6.5 x 9.0 inches (24 x 16.5 x 23 cm), no battery 6.5 x 12.0 inches (24 x 16.5 x 30.5 cm), with battery pack
Weight	7.5 lbs (3.4 kg) no battery 13.0 lbs (5.9 kg) with battery
Communication	Ethernet, RS-232 Optional embedded wireless (900MHz or 2.4GHz)
Air Flow Rate	3.8 liters/minute, 0.13 ft3/minute (cfm)
Operating Temperature	-5 to +125 °F (-20 to +50 °C)
Storage Temperature	-40 to +160 °F (-40 to +70 °C)
Operating Time	Continuous 24/7/365
Outputs	Particle Data, Sensor Diagnostics, Bio-Alarm, Fault
Data Storage	Internal MicroSD Memory Card 2 GB card capable of storing over 1 year of data
Particle Sizing	0.7 – 10 microns
Alarm Algorithm Settings	Indoor and Outdoor
Alarm Response Time	Configurable down to 1 second Recommend 30-60 seconds
Enclosure	Aluminum, IP66 Weatherproof
Triggered Collection	Integrated with DFU or C100 Sample Collector



Name	Connected	IP Address	Latitude	Longitude	Memory Card Logging	Status
SAC Alpha	True	192.168.2.100	39.2009	-76.7537	True	On
SAC Bravo	True	192.168.2.119	39.2009	-76.7546	True	Alarm
SAC Charlie	True	192.168.2.129	39.2010	-76.7528	True	On
SAC Delta	True	192.168.2.114	39.2014	-76.7544	True	On
SAC Echo	True	192.168.2.113	39.2004	-76.7532	True	On
SAC Foxtrot	False	192.168.2.118	39.2013	-76.7552	False	Disabled



INTEGRATED SAMPLE COLLECTION SPECIFICATIONS

	DFU Collector	C100 Collector
Sampling Method	Dry collection	Wet or Dry collection
Power Consumption	60 Watts	60 Watts
Approximate Dimensions	3.5 x 3.0 inches (Height x Diameter)	4.5 x 5.5 inches (Height x Diameter)
Weight	1.3 lbs (0.6 kg)	3.0 lbs (1.4 kg)
Maximum Flow Rate	100 Liters/Minute	200 Liters/Minute
Particle Size Collection	1 to 10 microns	1 to 10 microns
Collection Media	Dry Sampling – polyester felt filters (47mm diameter, 1 micron)	Wet Sampling- Buffered rinse fluid provided in pre-measured vials+ Dry Sampling option
Sample Recovery Method	Particle extraction from filter performed in vial with liquid buffer	Manual liquid rinse performed at collector – yields 6mL of liquid

