

IBAC™ 2

Bio-Threat Detection And Collection



The IBAC 2 is a continuous, real-time air monitor that alarms in less than 60 seconds when an airborne bio-threat is present. It uses UV-Laser induced fluorescence to discriminate biological organisms from background particles, reliably detecting all four classes of biological agents at concentrations below 100 ACPLA with low false alarm rates and no consumables. 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. The system automatically alarms upon detection, collects and preserves samples for confirmatory analysis, and transmits data to command and control centers. From long-term, fixed installations to short, mission-based tactical applications, the IBAC 2 is the most mature and widely deployed biological trigger on the market today.

AFFORDABLE, REAL-TIME WARNING CAPABILITY FOR BIO-AEROSOL THREATS

Detects spores, bacteria, virus, and toxins

- Sensitivity below 100 ACPLA with high confidence and low false alarm rates
- Autonomous 24/7/365 operation with no consumables
- Alarm automatically triggers sample collection
- Detection algorithms for indoor and outdoor use

COMPACT, LIGHTWEIGHT, AND RUGGED

Integrates with facility monitoring and control systems

- Mass transit security
- Building protection and Critical Infrastructure Protection
- Mobile labs
- Integrated CBRNE systems and Force protection

RELIABLE

Most mature and widely deployed bio-trigger device

- More than 1,000 units deployed world wide
- US Government validated
- Low sustainment cost and high Mean Time Between Failure (MTBF) rates
- Has been operated for >5,000,000 hours in relevant environments

SPECIFICATIONS

General		IBAC 2 Stationary/Portable	
Technology		UV Laser Induced Fluorescence (LIF)	
Sampling & Analysis			
Sample Introduction		Airborne particles; triggered aerosol sample collector	
Sample Phase		Aerosol; flow rate 4.0 L/min (0.14 ft ³ /min)	
Threats		Spores, vegetative bacteria, viruses, and toxins; particle size: 0.7 – 10 microns	
Sensitivity		<100 particles/L of air	
Sampling & Analysis		Continuous sampling 24/7/365; indoor/outdoor alarm settings; analysis time configurable down to 1 second	
Sample Collection		Integrated with DFU (see below)	
System Interface			
Display & Alerts		On-board LED for visual indication; full display via software on external computer	
Outputs		Particle data, sensor diagnostics, bio-alarm, and fault	
Data Storage		Internal 2 GB MicroSD memory card; stores over 1 yr of data	
Training Requirements		<2 hrs	
Power			
Input Voltage		100-240 VAC (adapter supplied); 18-36 VDC	
Power Consumption		20 watts (normal detector operation) 75 watts (with collector running)	
Cold Start Time		<5 mins	
Environmental			
Operating Temp (ambient)		-5 to 125 °F (-20 to 50 °C)	
Operating Humidity		5% to 95%, non-condensing	
Storage Temp		-40 to 160 °F (-40 to 70 °C)	
Integrated Sample Collector Specifications (DFU Collector)			
Sampling Method		Dry collection	
Power Consumption		60 watts	
Max Flow Rate		100 L/min	
Particle Size		1 to 10 microns	
Collection Media		Dry sampling - polyester felt filters (47mm diameter, 1 micron)	
Sample Recovery		Particle extraction from filter performed in vial with liquid buffer	

General		IBAC 2 Stationary	
Communication		Ethernet, RS-232	
Physical Features			
Dimensions (L x W x H)		9.5 x 6.5 x 9.0 in (24.0 x 16.5 x 22.9 cm)	
Weight		7.5 lbs (3.4 kg)	
Enclosure & Protection		Aluminum, IP66 weatherproof	
General		IBAC 2 Portable	
Location		GPS	
Communication		Ethernet, RS-232, Embedded wireless Wifi	
Battery		Li-ion UBBL13 military battery; up to 18 hrs runtime; charge <4 hrs	
Physical Features			
Dimensions (L x W x H)		9.5 x 6.5 x 11.75 in (24.0 x 16.5 x 29.9 cm)	
Weight		12.2 lbs (5.5 kg)	
Enclosure & Protection		Aluminum, IP66 weatherproof	



Networked Command Station

Specifications are subject to change without notice.
For the most up-to-date specs, go to www.teledyneflir.com

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