



# FLIR IBAC™ 2

## Bio-Threat Detection & Collection

The FLIR 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.

### CUSTOM APPLICATIONS

- Building protection
- Special event monitoring
- Mission-based incident response
- Force protection
- Mass transit security



### FEATURES & BENEFITS

- Affordable, real-time warning capability for bio-aerosol threats
- Detects spores, bacteria, virus, and toxins
- Autonomous 24/7 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
- US Government validated



## Specifications

IBAC 2		
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 <sup>3</sup> /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 or C100 sample collector (see below)	
System Interface		
Display & Alerts	On-board LED for visual indication; full display via software on external computer	
Communication	Ethernet, RS-232; optional embedded wireless (900MHz or 2.4GHz)	
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)	
Battery Specs	Li-ion BB 2590 military battery; up to 14 hrs runtime; charge <4 hrs	
Cold Start Time	<5 mins	
Environmental		
Operating Temp	-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)	
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) - without battery	
Weight	7.5 lbs (3.4 kg)	
Enclosure & Protection	Aluminum, IP66 weatherproof	
Integrated Sample Collector Specifications		
	DFU Collector	C100 Collector
Sampling Method	Dry collection	Wet or dry collection
Power Consumption	60 watts	60 watts
Dimensions	3.5 x 3 in (H x Diameter) 8.9 x 7.6 cm	4.5 x 5.5 in (H x Diameter) 11.4 x 14 cm
Weight	1.3 lbs (0.6 kg)	3.0 lbs (1.4 kg)
Max Flow Rate	100 L/min	200 L/min
Particle Size	1 to 10 microns	1 to 10 microns
Collection Media	Dry sampling - polyester felt filters (47mm diameter, 1 micron)	Wet sampling - buffer rinse fluid provided in pre-measured vials
Sample Recovery	Particle extraction from filter performed in vial with liquid buffer	Manual liquid rinse performed at collector, yields 6mL of liquid



**HEADQUARTERS**  
FLIR Systems, Inc.  
27700 SW Parkway Ave  
Wilsonville, OR 97070

**DETECTION SALES, AMERICAS**  
FLIR Detection, Inc.  
2800 Crystal Drive, #330  
Arlington, VA 22202  
Phone: +1-877-692-2120  
detection@flir.com

**DETECTION SALES, APAC**  
FLIR Detection, Inc.  
3 Pickering Street #03-49  
Nankin Row  
Singapore - 048660  
Phone: +65-6822-1596  
detection@flir.com

**DETECTION SALES, EMEA**  
FLIR Detection, Inc.  
Luxemburgstraat 2  
2321 Meer  
Belgium  
Phone: +32 (0) 3665 5106  
detection@flir.com

www.flir.com  
NASDAQ: FLIR

Equipment described herein may require US Government authorization for export purposes. Diversion contrary to US law is prohibited. Imagery for illustration purposes only. Specifications are subject to change without notice. ©2017 FLIR Systems, Inc. All rights reserved. 16-1695-DET Revised 01/2017