**INSTANTANEOUS BIOLOGICAL ANALYZER AND COLLECTOR**

# FLIR IBAC™ 1

The FLIR IBAC 1 is a fully automated biological agent detector 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 bio-agents at concentrations below 100 ACPLA with low false alarm rates. The IBAC 1 can operate integrated into a UAV or robotic system, or as part of a network configuration to form the "first tier" of a building/critical infrastructure protection system. 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. The IBAC 1 offers a flexible, field-ready solution for bio-aerosol monitoring.

www.flir.com/ibac1

## FULLY AUTOMATED, REAL-TIME BIO-AEROSOL THREAT DETECTION

Detects spores, bacteria, viruses, and toxins

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

## COMPACT, LIGHTWEIGHT, AND RUGGED

Operates integrated into UAV or robotic system, or as part of a network configuration for infrastructure protection

- Mission-ready for mass transit security, building protection, and mobile labs
- Integrated CBRNE systems and Force protection
- Easy integration into HVAC, robotic, and stealth applications

## TRUSTED, RELIABLE DETECTION

Most mature and widely deployed bio-trigger device

- More than 1,000 units deployed worldwide
- Operated for >7 million hours in relevant environments
- US Government validated
- Low sustainment cost and high Mean Time Between Failure (MTBF) rates

## SPECIFICATIONS

| General | IBAC 1 |
|---|---|
| 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 sample collector at 30 L/minute |
| **System Interface** | |
| Interface | RS-232 |
| Outputs | Service and alarm |
| **Power** | |
| Input Voltage | 12.0 VCD + 0.70; - 0.10 VDC |
| Power Consumption | ≤11 Watts |
| **Environmental** | |
| Operating Temp (ambient) | -14 to 122 °F (-10 to 50 °C) |
| Operating Humidity | 0% to 95%, non-condensing |
| Storage Temp | -40 to 160 °F (-40 to 70 °C) |
| **Physical Features** | |
| Dimensions (L x W x H) | 6.0 x 4.0 x 5.0 in (15.3 x 10.2 x 12.8 cm) |
| Weight | 5 lbs (2.7 kg) |
| Enclosure & Protection | Aluminum housing with IP66 weatherproof inlet and collector |
| Mounting | Mounted within secondary enclosure or with HVAC Systems |

Networked Command Station

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


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