

BioFlyte z200

Opioid and Bio-aerosol Detection System



The BioFlyte z200 comprehensive opioid and bio-aerosol detection system is intended for continuous operation in critical infrastructure, operating unattended for months at a time. The system includes a UV LIF trigger sensor and a MALDI time-of-flight mass spectrometer for threat identification. Once triggered, the autonomous threat identification process proceeds, which includes aerosol sampling, sample preparation, sample analysis and data analysis. Where possible, the BioFlyte z200 is configured to communicate with the building management system to protect unexposed sections of the building by actively controlling the ventilation system. The system automatically resets itself for the next trigger and is designed for rapid integration into third-party command and control systems and architectures.

A forensics sample can be collected as a laboratory reference sample using an (optional) fully integrated dry filter unit. The sampler is activated when the trigger signal is received.

KEY SPECS

- Agent identification in 5 minutes from trigger/alarm signal (includes sample collection time)
- Detects all classes of bio-agents
- New threats inexpensively added to threat list via library update
- Excellent sensitivity: 100 threat particles per liter of air
- Specificity: species or compound

FEATURES

- MALDI time-of-flight mass spectrometer for bio-threat and opioid identification
- Continuously monitors the air for aerosol threats
- Supports active control of the ventilation system
- Inexpensive to operate: no bio-molecular reagents
- Fully autonomous, unattended operation: minimal resource requirements
- Optional forensics sample collection

SPECIFICATIONS

Sensitivity:	100 threat particles per liter of ambient air
Specificity:	Species level for bio-threats, compound specific for opioids
Detection Time:	5 minutes (from trigger to identification)
Maintenance interval:	3 months (but may be adjusted for local ambient conditions)
Consumables for each assay:	None
Power:	Input Power AC Voltage: 110-220Vac Input Power DC Voltage: 24Vdc (opt) Power Consumption: 100 W (nominal)
Size and Weight:	Width: 22x24x30" (55x60x75 cm) Weight: 77 lb (35 kg)
Trigger Sensor Air Sampling Flow Rate:	3 liters per minute
Identifier Air Sampling Flow Rate:	30 liters per minute
Forensics Air Sampler Flow Rate:	200 lpm (optional)
Environmental:	Intended for indoor applications
Humidity:	5 – 95% (non-condensing)

