MUVE™ B330

Continuous Biological Detector and Collector

The MUVE B330 is a Continuous Biological Detector and Collector purpose-designed for unmanned aerial systems (UAS) to provide real-time continuous monitoring of biological threats while on the move. The B330 leverages the legacy design and performance of the IBAC product line in a SWaP-optimized configuration. The SkyRanger® R70 and R80 SkyRaider™ serves as the platforms for the initial deployment of the MUVE B330 payload. The payload is designed to be intuitive, easy to use, and require minimal maintenance. Sensor display is provided via the Mission Control Station (MCS) piloting interface. Alarming conditions and collector status will be displayed to the Pilot to not only alert them to a threat, but also provide positive confirmation that a sample is being collected. The MUVE B330 provides next level protection to combat forces by identifying biological threats remotely and down range.

ASSESS THE SCENE FROM A SAFE DISTANCE

When dangerous conditions exist, or are anticipated, utilize the MUVE B330 to fly in for an initial assessment.

- Continuous air sampling provides real-time feedback of conditions
- Allows for informed decision making prior to approaching a hazardous scene
- Locate source of threat and track progression as the scene unfolds

SIGNIFICANTLY REDUCE TIME TO ACTION

Rapidly deploy in a matter of minutes.

- Cover difficult terrain from the air to assess threat
- Make a quick assessment of the threat perimeter
- Alarm will initiate upon detection of hazardous conditions
- Automated sample collection upon alarm indication

FULLY INTEGRATED SITUATIONAL AWARENESS

Gather a comprehensive overview of an active scene utilizing visuals and B330 indications.

- Mission Control Station (MCS) application provides plug-and-play operation of the MUVE B330 payload
- Visually display threats on the map within MCS using easy to understand pin drops
- Analyze, log, and access complex data in an easy-to-understand visual overlay

TELEDYNE FLIR

SPECIFICATIONS

General	MUVE B330
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 ft3/min)
Threats	Spores, vegetative bacteria, viruses, and toxins; particle size: 0.7 – 10 microns
Sensitivity	<100 particles/L of air
Sampling & Analysis	Continuous sampling when in operation
Sample Collection	Integrated sample collection
System Interface	
Display & Alerts	Mission Control Station (MCS)
Outputs	Alarm Status, Diagnostics Status, Collector Status
Data Storage	16 GB internal storage
Training Requirements	<8 hrs
Power	
Input Voltage	16-36 VDC
Power Consumption	10W (normal operation), 12W (collector running)
Cold Start Time	<5 mins
Environmental	
Operating Temp (ambient)	-26 to 120 °F (-32 to 49 °C)
Operating Humidity	5% to 99%, non-condensing
Storage Temp	-38 to 126 °F (-39 to 52 °C)
Integrated Sample Collector Specifications	
Sampling Method	Dry collection
Power Consumption	2 watts
Max Flow Rate	30 L/min
Particle Size	1 to 10 microns
Collection Media	Sample Disk
Sample Recovery	Sample extraction from sample disk in vial with liquid buffer

General	MUVE B330
Communication	Ethernet
Physical Features	
Dimensions (L x W x H)	7.6 x 7.6 x 8.5 in (19.3 x 19.3 x 21.6 cm)
Weight	3.17 lbs (1.44 kg)
Enclosure	Windform® SP (Composite polyamide based, carbon filled)

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