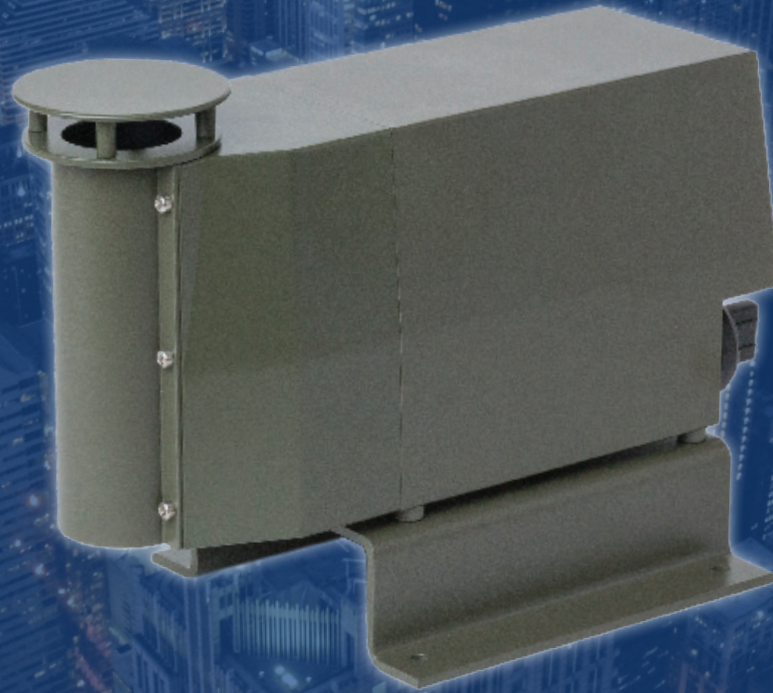


**Proengin**



# AP4C-VB

**Combined Chemical & Biological Detector**



BRAP4CVB01EN

### Combined chemical & biological detection with one sensor

The AP4C-VB is a system for vehicle or fixed site that provides continuous detection of chemical and biological threats. The detector uses two refillable hydrogen cylinders which provide 24 hours of operating time and can be easily changed out for continuous operation. On the chemical side, it can detect a broad range of conventional and unconventional threats such as chemical warfare agents, toxic industrial chemicals, homemade terrorist mixtures, and non-traditional agents (e.g. Novichok) at concentrations as low as 2 ppb. The presence of virus and bacteria can also be detected in real time. Both chemical and biological monitoring takes place simultaneously. Therefore, there is no need to switch between the biological and chemical mode as the two in one sensor is designed to monitor all threats at the same time.

### Robust technology

Unlike other systems, the flame spectrometry technology used by the AP4C-VB is not affected by humidity and challenging weather condition. Designed to withstand the harsh environment of military operation, the AP4C-VB runs continuously and does not require filters or special mounting protection.

### Easy integration

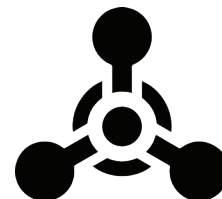
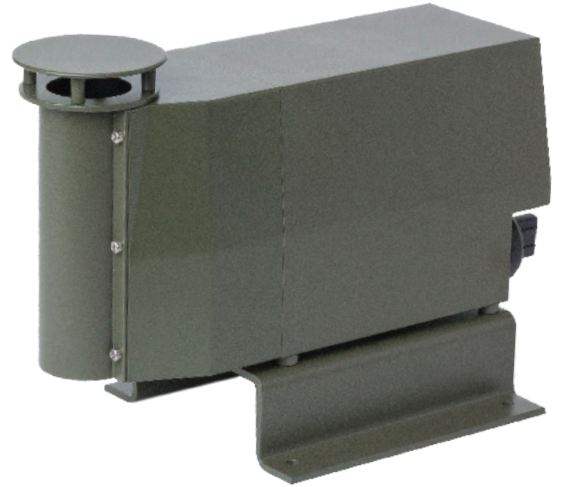
Alarm and sampling is fully automatic and requires no action from the user. The AP4C-VB can easily be installed as a stand-alone system with its own visualization and control module, integrated to the onboard vehicle combat system via a simple communication protocol, or connected to a computer.

### Quick response time and recovery

The high sample rate of the sensor results in rapid alarm. The average detection time is 4 seconds. Furthermore, the AP4C-VB quickly recovers after a positive contamination and is able to detect several threats simultaneously and independently on 4 detection channels. Therefore, the operator can quickly initiate protective measures in order to respond to a CBRN event.

### Combat proven

The AP4C-VB is a combat proven system which has been tested and is in use with several organizations around the world. Off the shelf radiation detectors can also be added to this system for full CBRN monitoring.



### Main features

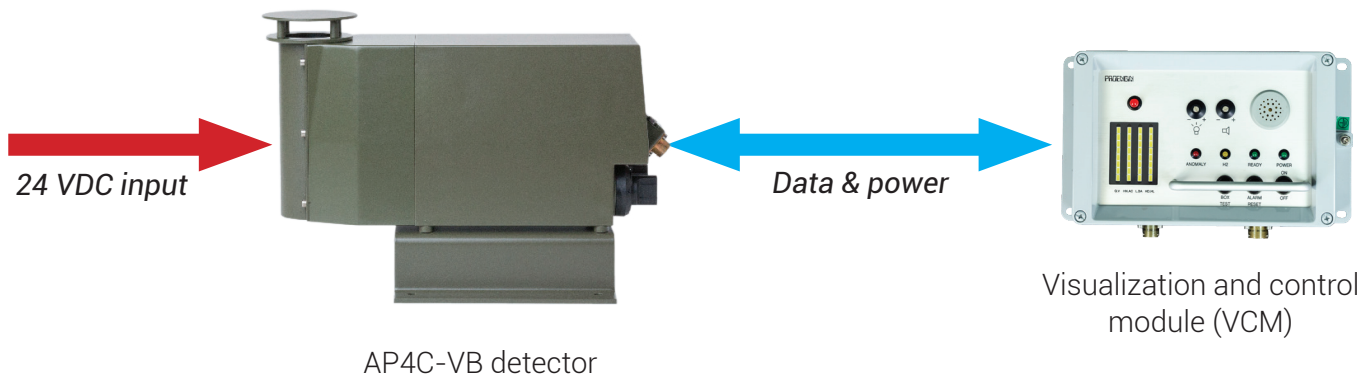
- **Combined detector:** 2 in 1 design results in lower procurement costs and less system complexity.
- **Broad range of detection:** able to detect chemical warfare and binary agents, non-traditional agents such as Russian Novichok, homemade agents, toxic industrial materials that could be diverted for terrorist use, virus and bacteria.
- **24 hours of continuous use:** can be run 24/7 with a continuous supply of power and refillable hydrogen cylinders.
- **Designed for vehicle and fixed site monitoring.**
- **Minimal footprint and easy integration:** standalone system or integration to end-user system.
- **Fast detection time:** 4 seconds response time on average.
- **Quick clear out time.**
- **Minimal maintenance requirement:** no filter required.
- **Detector can be mounted outside:** hardened enclosure and design means no need to install a special chamber or waterproof enclosure.
- **Unaffected by humidity and heat.**
- **High sample rate:** once every two seconds (0.5Hz).
- **Internal memory recording** logging up to 530 hours of detection and status data (loop recording).
- **Open architecture** via simple communication protocol allows easy integration of the detector to the end-user system.

### Specifications\*

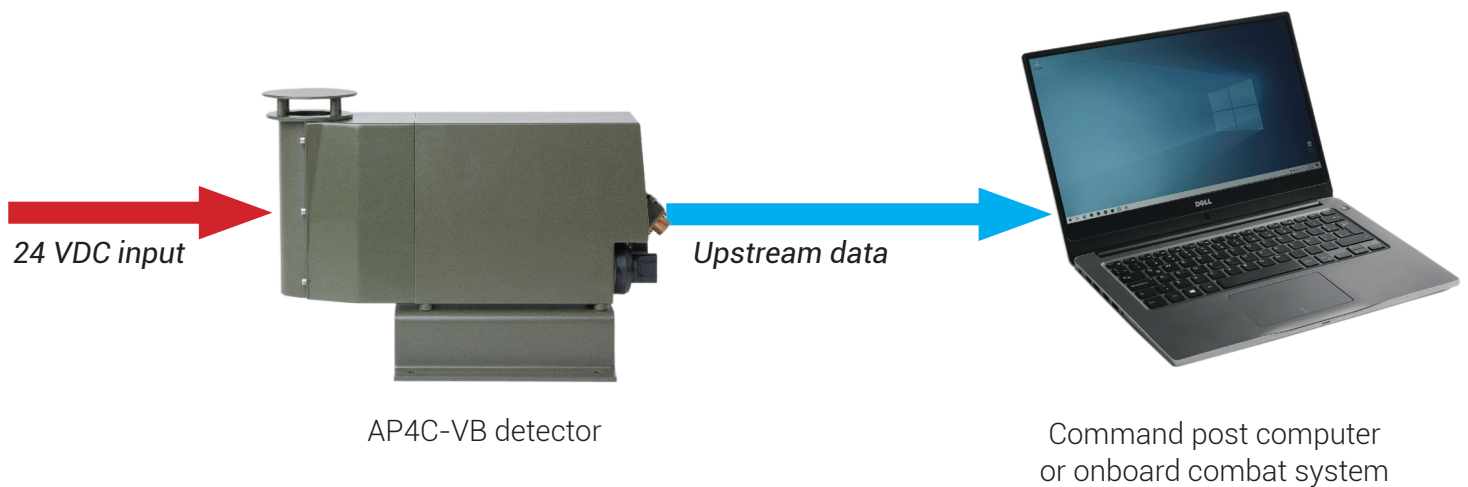
- **Technology:** flame spectrometry.
- **Chemical detection range:** Chemical Warfare agents (CWA), Toxic Industrial Materials (TICs & TIMS), Non-Traditional agents (NTAs), binaries (chemical products mixed together to form a chemical warfare agent). Detection trigger levels as low as 2 ppb (0.002 ppm).
- **Biological detection range:** virus, bacteria, toxins, and spores.
- **Detection form:** gas, vapor, 20 ACPLA for biological with sampling of 2-10 micron particles.
- **Power supply:** 24 VDC (nominal) or 115-230 VAC (with regulator).
- **Power consumption:** 72 W at peak power upon startup, 30 W at 21°C / 70°F, 60 W at -31°C / -25°F and 50°C / 122°F
- **Operating temperature:** -25°F to 122°F / -32°C to +50°C.
- **Weight:** 4 kg / 9 lb for the AP4C-VB main detector, 11 lbs for the visualization and control module (VCM).
- **Communication standard:** RS-485.



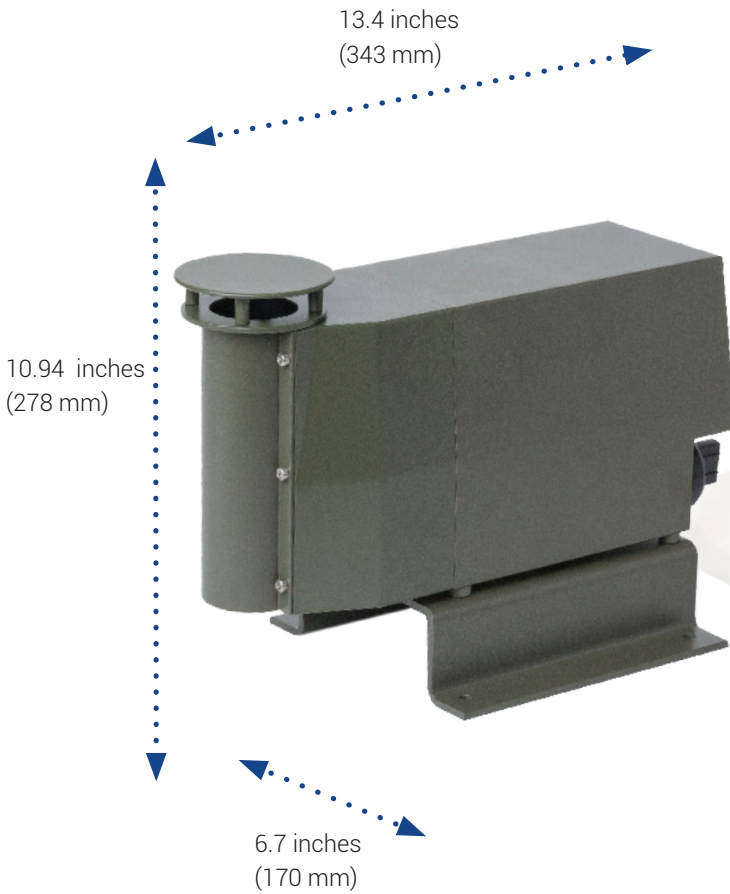
### Mounting option #1: Standalone interface



### Mounting option #2: Integration to the onboard tactical system



### Size and weight

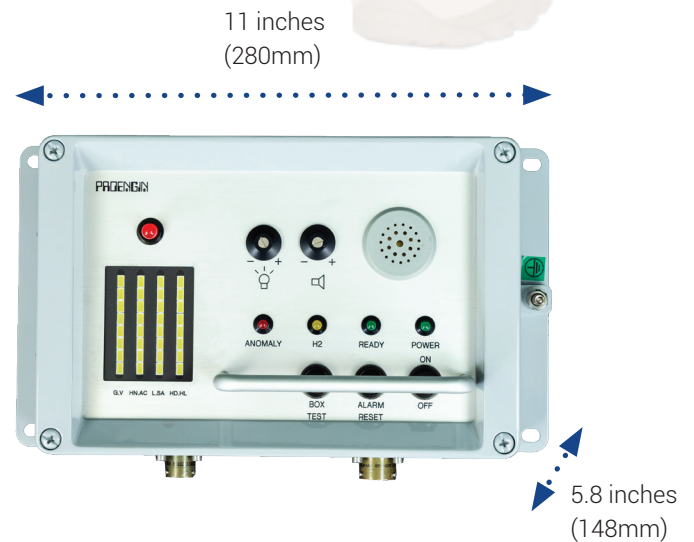


**AP4C-VB detector**

9 lbs (4 kg)

**Optional visualization and control module**

11 lbs (5 kg)





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