

Proengin



Image credit: US Navy

AP4C-F

Marine & Critical Infrastructure Chemical Detection System



BRAP4CF01EN

24/7 chemical detection for naval application

The AP4C-F is a chemical detector for gas, vapor, and aerosol that provides continuous 24/7 protection of naval platform. 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).

Robust technology

Unlike other systems, the flame spectrometry technology used by the AP4C-F is not sensitive to humidity and salt spray. This critical feature allows to mount the detector directly on the main deck or bridge for real time monitoring of the external environment; therefore, the detection takes place outside the ship and can provide important information and alerts to help protect the crew. Designed to withstand the harsh environment of naval operation, the AP4C-F runs continuously and does not require filters or consumables.

Easy integration

Alarm and sampling is fully automatic and requires no action from the crew at any time. The AP4C-F can easily be installed as a stand-alone system with its own interface, integrated to the onboard naval technical data 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-F quickly recovers after a positive contamination and is able to detect several threats simultaneously and independently on 4 detection channels. Therefore, the crew can quickly initiate protective measures in order to respond to a CBRN event.

Combat proven

The AP4C-F is a combat proven system which has been tested and is in use with several navies, first responder fireboats, as well as on buildings and key infrastructure worldwide.



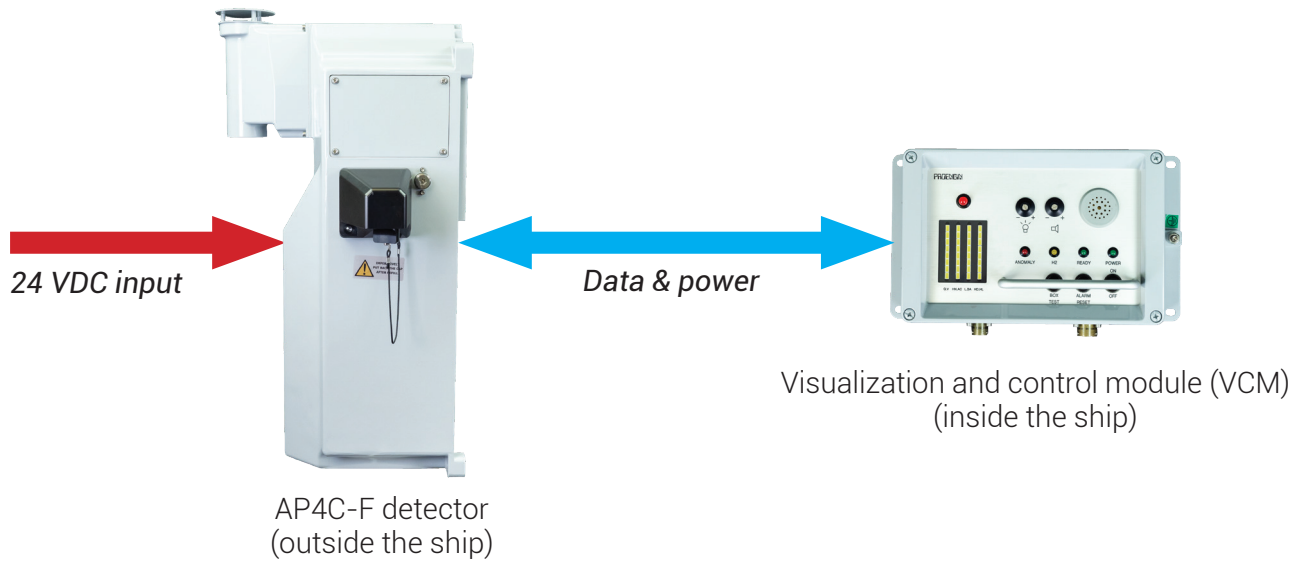
Main features

- **Broad range of detection:** able to detect chemical warfare agents, non-traditional agents such as Novichok, home-made agents, and toxic industrial materials that could be diverted for terrorist use
- **24/7 continuous detection**
- **Designed for naval use and fixed site monitoring**
- **Minimal footprint and easy integration:** standalone system or integration to the onboard system (NTDS/CIC)
- **Fast detection time:** 4 seconds response time on average
- **Quick clear out time**
- **Minimal maintenance requirement:** only needs one quart of distilled water per month
- **Detector can be mounted outside,** no need to install a special chamber or waterproof mast
- **Unaffected by humidity, heat and marine environment** (salt)
- **Sample rate:** every second (1Hz)

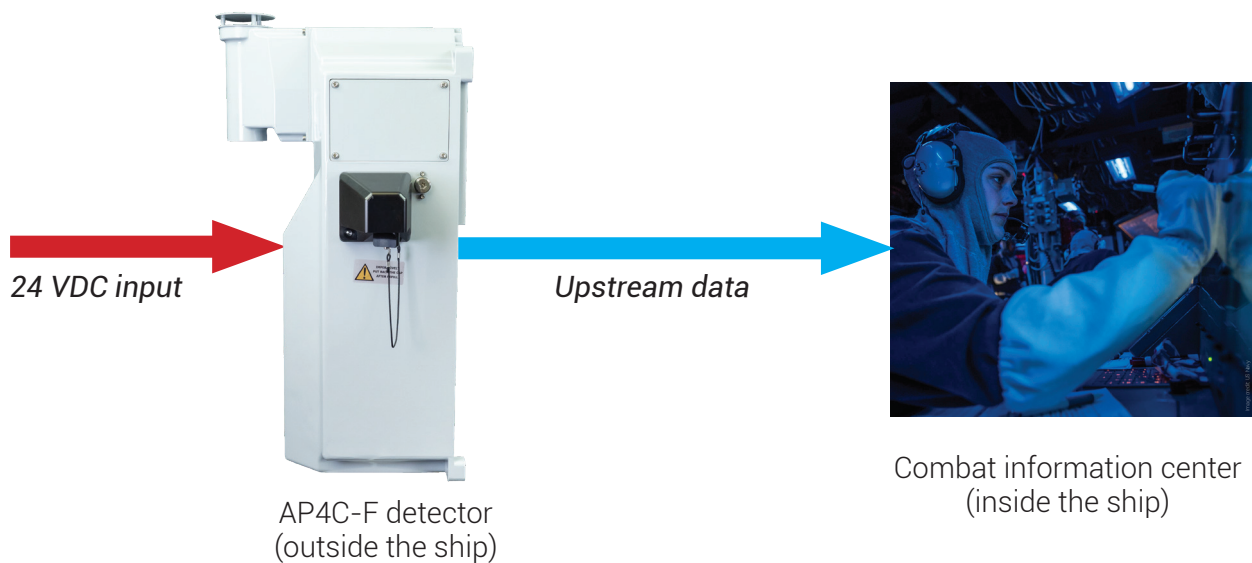
Specifications*

- **Technology:** flame spectrometry
- **Detection range:** unlimited, CWA, TICs & TICS, NTAs, binaries
- **Detection form:** gas, vapor, aerosol
- **Power supply:** 24 VDC (nominal) or 115-230 VAC (with regulator)
- **Power consumption:** 120 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:** 21.3kg / 40 lbs

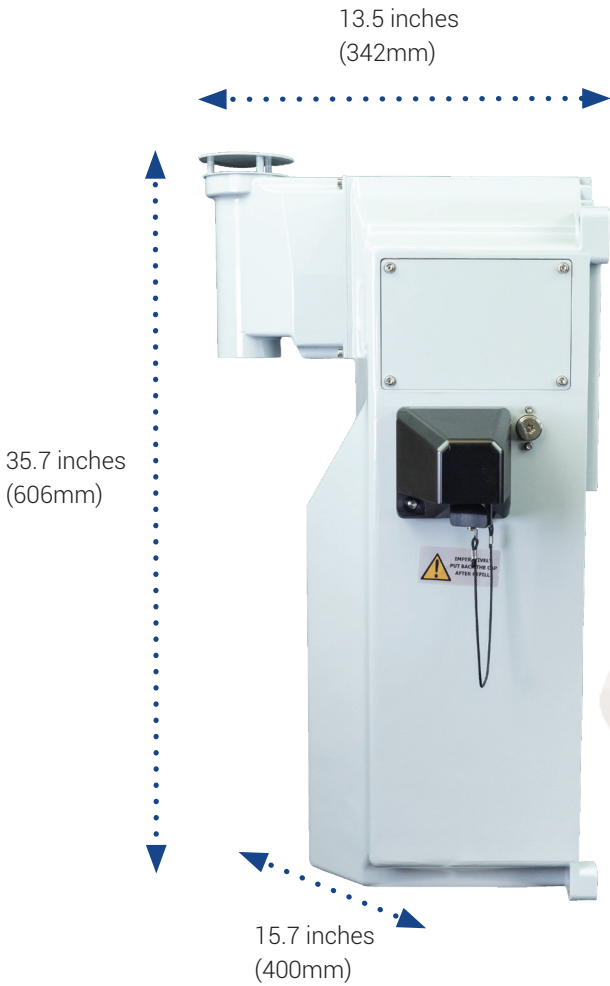
Mounting option #1: Standalone interface



Mounting option #2: Integration to the onboard tactical system



Size and weight



AP4C-F detector

40 lbs (18.2 kg)

Optional visualization and control module (VCM)

11 lbs (5 kg)

11 inches
(280mm)

6.4 inches
(163mm)



5.8 inches
(148mm)



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