AP4C-V

M1618 E00 000

The AP4C-V is a chemical agent detector for fixed or mobile applications. It is used to detect Chemical Warfare Agents and Toxic Industrial Chemicals

Purpose

The AP4C-V is used in fixed positions (shelters, storage aeras) or mobile (reconnaissance vehicles, light vehicles). **The AP4C-V detects all nerve, all blister and all blood agents.**

Main features

- Fast and remote controlled turn-on
- Immediate identification and measurements
- Remote report of information
- Dynamic filtration of dust
- Fast response time and fast return-to-zero time.
- Flameproof.

List of detected chemicals

Tabun GA	Arsine SA
Sarin GB	Diphenylchloroarsine DA
Soman GD	Adamsite DM
Cyclo-sarin GF	Deiphenylcyanoarsine DC
Vx	BZ
VX	CNS
Distilled mustard HD	Bromobenzylcyanide CA
Nitrogen mustard HN-1	CS
Nitrogen mustard HN-2	CR
Nitrogen mustard HN-3	Chloropicrin PS
Phosgene CX	Runcol
Lewisite L	Precursor of OPA
Mustard lewisite mixture HL	Precursor of DF
Phenyldichloarsine PD	EDMP
Ethyldichloarsine ED	Lewisite
Methyldichloarsine MD	
Hydrogen cyanide AC	
Cyanogen chloride CK	

Installation on the top of a mobile plateform

photo: BAE systems

AP4C-V

M1618 E00 000

Operating principle

The AP4C-V is a flame spectrophotometer. A continuous stream of air is burned into a combustion chamber, which has a constant supply of hydrogen.
A miniaturized spectrophotometer measures the luminous emitting variations of the flame. The electrical signal from the photo sensor is processed in real time by a micro controller board.

Detection

- Detects simultaneously agents on the four channels.
- Detects agents in all forms: vapor – aerosols – droplets – dust agents and frozen agents.
- Capability to detect TIC's:
  PH_3, PARATHION on P channel – PCl_3, NH_3, NOx on HNO channel – SO_2, SF_6, CS_2, H_2S, H_2SO_4 on S channel – AsH_3 on As channel.

Use specifications

- Ultra fast response time: 2 seconds at the high sensitivity.
- Ultra fast return-to-zero after detection even in high concentration.
- Detects continuously: no need to change filter after positive detection.
- Very low false alarms rate.
- Starts up within 2 minutes. Restart in 30 seconds. No calibration. Built-in test included.

Characteristics

- Size (LxWxH): 335mm x 170mm x 223mm (13.2" x 6.7" x 8.78")
- Weight (with 2 hydrogen storage devices): 4 kg
- Response time: 2 seconds
- Temperature range
  - in operation: -32°C to +50°C (-25,6° F to +122° F)
- Temperature range
  - in storage: -39°C to +71°C
- Sensitivity in vapors, aerosols, droplets and dust in the air:
  - 10 µg/m^3 for all G, V agents
  - 0.5 mg/m^3 for H, HD and HL
  - 1.5 mg/m^3 for L, SA
  - 10 mg/m^3 for HN, HCN
- Operational up to 10 000 feet altitude (3 000 meters).
- Lifespan: 24 h
- Power supply: 24 V x 3 A max

PROENGIN
1, rue de l'Industrie,
78210 Saint-Cyr l'Ecole FRANCE
Tél: (33) 1 30 58 47 34 / Fax: (33) 1 30 58 93 51
E-Mail : contact@proengin.com

fc 12931 ed-01 mai 2008