

ALPHAPEC 810 portable chemical agent detector

Product overview

The ALPHAPEC 810 portable chemical agent detector integrates the most advanced detection technology in the world (IMS, Raman spectra technique, EC electrochemical sensor technology), and adopts advanced array pattern recognition algorithm, so it can identify various toxic and harmful substances quickly and accurately in a variety of complex environment, make qualitative and quantitative analysis and give early warning timely. The instrument can detect nearly 100 kinds of chemical warfare agents and toxic and harmful gases, and can simultaneously detect thousands of kinds of solid and liquid dangerous chemicals. It is the only on-site detection equipment in the world that can simultaneously detect three forms (solid, liquid and gas) of chemical warfare agents (CWAs) and industrial toxic chemicals (TICs).



Technical indicators

Detection principle	Array sensor detection technology + pattern recognition algorithm
Species that can be detected	Sarin, Tabun, Soman, VX, mustard gas, lewisite, hydrogen chloride, hydrogen cyanide, hydrogen sulfide, hydrogen fluoride, carbon monoxide, carbon disulfide, sulfur dioxide, nitrogen dioxide, chlorobenzene, ammonia gas, ammonia solution, phosgene, ethylene oxide, acrylonitrile, etc.
Lowest LoD	5ppb-10ppm, varying with different substances
Warm-up time	<20min
Response time	<3~60s
Working temperature	-20°C ~ +40°C
Storage temperature	-40°C ~ +55°C
IP grade	Ip65, upgradable to IP67
Communication mode	RS485
Working hours	>2h
Size	360 mmx 142 mmX 160 mm
Weight	<3.5 Kg

Product advantages

- I. **Wide detection range.** The instrument integrates a variety of detection technologies, and thus can detect three forms (solid, liquid and gas) of chemical warfare agents (CWAs) and toxic industrial chemicals (TICs).
- II. **False positive rate.** Integrating the identification characteristics of various sensors and adopting advanced array pattern recognition algorithm, it can reduce the false positive rate to the maximum.
- III. **Fast response.** It can complete the detection of solid and liquid samples within 10 seconds and of gas samples within 30 seconds;
- IV. **Lower LoD.** The concentration detection range of solid and liquid samples is above 1%, and that of gas samples is between ppb level and ppm level;
- V. **Simple to operate and highly user-friendly.**

Application area

The ALPHAPEC 810 portable chemical agent detector can be widely used in national defense, safety supervision, public security, customs, anti-terrorism, environmental monitoring, emergency, fire control, scientific research etc.

