DESCRIPTION

Warning and detection automatic device of biological agents is composed of two parts, namely warning and identification. First, sampling of the environmental air is done by warning part. Based on physical changes made with respect to the conventional conditions, early warning on possibility of biological attack is declared to the user, and then identification part will be activated, in order to identify possible agents.

Identification part determines type of agent, via the audio-visual signs and informs the user. Sampling of identification is done by wet Cyclone. To identify the sampling agents, immuno- chromatography method is used. Identifying eight biological agents or biological toxins can be done in identification system, simultaneously (number of kits, is extensible).

All information and operation process could be visible on the LCD. The device is worked in manual or automatic modes. In the manual mode, each warning or identification parts can be launched independently. In automatic mode, just with press of a key, the warning part is launched first and sampling of the environmental air is done at various time intervals, in which case the danger signal, then the identification is launched. The identification part in all stages of operations consists of decontamination of various departments, before and after each sampling, air sampling, data processing and gives the results automatically. Various sensors embedded in the device could control the execution of all stages of work.

This device is equipped with temperature, humidity, wind speed and direction, GPS and radio transmitter equipment. This information is very effective for command decisions and provides the possibility of creating the detection network. Test results can be stored and transferred into system memory for further analysis.

It is capable of using usual electric power, car battery or internal rechargeable battery. The battery can keep its charge by solar cell.

TECHNICAL FEATURES

Detection techniques warner	meager particle µm in size 2-10
Particle counting	1000000 particles per minute
Volume of air sampled in warning part	28/3 L/min
Control the volume of air sampled	Adjustable
Continuous operation	Auto or Manual
Volume of air sampled detector	300 litter per minute
Sampling time of warning part	3 minute
Sampling time of identification part	5 minute
The time required to identify in detector	3- 5 minute
diameter of particles collected	2 µm up to
detection techniques	Roll kit
The number of agent detectable	6 biological agent – extendable to 10 agents
Operation	5- 500 , Relative humidity 50% - 95 %
Radio Transmitter	2 km
Global Positioning System (GPS)	Yes
Environmental parameters	Humidity, Speed and direction of wind Ability to send data to external Memory
Dimension	60 cm×52cm×28cm
Net Weight	25 kg