

EOD123 Handheld Explosive and Flammable Liquids Detector

The EOD123 Handheld Explosive and Flammable Liquids Detector is used for inspection of liquids within containers, such as plastic and glass bottles, carton packages and other non-metallic vessels. It can be used by Aviation Security Services, Law Enforcement Agencies and Control Authorities in airports, at checkpoints and in crowded places (stadiums, night clubs, etc).

The device allows the user, without having to directly contact or open a container, to distinguish between substances such as gasoline, incendiary mixtures, acetone, nitroglycerine, various spirits, ethers and other dangerous liquids from water, nonalcoholic and alcoholic drinks (including strong ones), dairy products, etc.



The system uses quasistatic electrical tomography to estimate the spatial distribution of the electric properties of a medium and determine the characteristics of a liquid regardless of the size of the container it is in, the thickness of the container's wall or any air gap between the device and the container. The electrical properties of the liquid (permittivity and conductivity) enable the system to unambiguously determine whether the liquid is dangerous.

The device is completely electronic and does not have any sources of ionizing or microwave radiation, or other potentially dangerous components. The device does not need special tuning or training. It is simple to operate. The operator should press the device to the smooth and regular surface of the container and push the operating button. The green light will indicate that the liquid inside is non-flammable. The red light accompanied by a sound alarm will indicate the potential liquid hazard.

Main features of the device:

- Capable of distinguishing water and aqueous solutions from incendiary mixtures, gasoline, acetone, nitroglycerine, various alcohols and ethers through glass and other materials
- Wall thickness of the container – up to 8 mm
- Duration of one detection – under 2 seconds (immediate result upon contact with the container)
- Sound and light indication
- Power supply – two AA-type batteries
- Battery charge control
- Device weight – 165 g (with batteries)
- Dimensions: 210x70x25 mm