MO-2M
HANDHELD EXPLOSIVE VAPOR DETECTOR

APPLICATIONS

The MO 2M is lightweight (1.45kg), highly sensitive Hand Held Explosive Vapor detector designed for a contact-less, non-intrusive inspection of:

- Persons and Hand luggage,
- Luggage and cargo transported by all means,
- Letters and parcels,
- Buildings, offices, furniture,
- Vehicles,…

When fitted with its TVIN thermal desorber, MO-2M can detect explosives residues collected on paper swipes or air samples collected on a metallic trap

OPERATING PRINCIPLE

MO-2M collects air samples from inspected objects, either directly or after vaporization explosives traces in TVIN. Vapors are then ionized and separated using the Non Linear Dependence of Ion Mobility (NLDM), also called FAIMS

PERFORMANCE

Explosives detected:

TNT, NG, PETN, RDX, TATP, etc… and ICAO Taggants (EGDN MNT) and others with similar physicochemical properties, as well as their by-products and/or mixtures such as C4, Semtex, Dynamite, ….

Sensitivity: in vapor mode: $10^{-13}$ g/cm$^3$ (10 ppt) for TNT
in particle mode: 50 pg.
Calibration time: less than 10 seconds
Response time: 2 seconds
ADVANTAGES

- Fully automatic, real time hand held detector,
- Ready to operate in less than 10 seconds after automatic calibration,
- Constant adjustment of operating conditions in line with the changes in the atmosphere,
- User friendly software, to display, analyze and record detailed detection data
- No gas carrier required, no filters, no consumables
- No special training required.
  - Now:
    - Internal battery for easier handling
    - Internal memory allowing the storage of 4000 ionograms (measurements)
    - Embedded Bluetooth for connection to a PC or PDA
    - Large color LCD display (38 mm x 29 mm)

MAIN FEATURES

SIZE

- Portable unit dimensions 300 x 82 x 110mm
- Portable unit weight 1.45 kg
- Weight of the complete set in its transportation case 8.00 kg
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- Case dimensions 465 x 335 x 135mm

MAIN FEATURES

Rechargeable Li-Ion 14.4V. battery, or mains (90/240 V - 50/60 Hz)
Operating time: 4 hours per battery in vapor mode
1 hour per battery in trace detection mode
The complete set includes: 3 batteries 1 battery charger, 1 AC adapter.

POWER SUPPLY

Rechargeable Li-Ion 14.4V. battery, or mains (90/240 V - 50/60 Hz)
Operating time: 4 hours per battery in vapor mode
1 hour per battery in trace detection mode
The complete set includes: 3 batteries 1 battery charger, 1 AC adapter.

OPERATING CONDITIONS

Temperature (Vapor detection mode) + 10 to + 45 °C
Temperature (Traces detection mode, using the TVIN) - 10 to + 45 °C
Storage temperature - 30 to + 50 °C