

M-ION

EXPLOSIVE VAPOUR AND TRACE DETECTOR



M-ION can detect and identify wide variety of explosives including pure explosive, composite explosive in vapour mode under different humidity conditions. A list of explosives includes TNT, RDX, C4, Semtex, PETN, ANFO, EGDN, HMX, Nitroglycerine (NG), Dynamite, DNT, Black Powder and their mixtures.

M-ION can detect the same explosives in the particle mode. An aluminum foil napkin is used for surface wiping.

M-ION is based on Field Asymmetric Ion Mobility Spectrometry. **M-ION** does not contain any radiation sources. Corona discharge is used as the ion source. **M-ION** has two-circuit system of the gas flows: the first for sampling, the second for creation of clean and dry carrier flow. **M-ION** does not need the system of special calibration.

M-ION has a special electrostatic valve for filtering the ions by their polarity. This valve significantly reduces false alarm rate from non-explosive materials.

M-ION is easy to use. It does not require any professional training. Presence of explosive vapors in the sample is visually presented on the device's LCD display or remotely on any device with Wi-Fi capability.

M-ION can be used effectively both indoors and outdoors at above-freezing temperatures.

General specifications

Threshold sensitivity in vapor mode (for TNT at 20 °C and 80% humidity), g/sm ³ or ppt	Better than 10 ⁻¹⁴ or 1
Threshold sensitivity in particle mode (for TNT), pg	100
Technology	Field Asymmetric Ion Mobility Spectrometry (FAIMS)
Radiation source	NO
Calibration	Not required
Type of ionization	corona discharge
Explosives detected	RDX, PETN, TNT, Semtex, NG, EDGN and other improvised explosives based on them
Alarm type	Audio and visual, with substance identification
Warm up time, minutes	not more than 2
Analysis and results time, seconds	2
Sampling distance, mm	up to 100
False alarm rate	Less than 1%
Time of continuous work in standalone mode, hours	not less than 2
Display	109mm (4.3in) TFT color display with touch screen
Operating temperature, °C	from 5 to 60
Operation humidity at 25°C	95%
Dimensions (L x W x H), mm	400x160x110
Weight, kg	3,0