

XS800BX Portable Explosives/Narcotics Trace Detector



1、 Introduction:

The Explosive /Narcotics Trace Detector is a new generation portable photoionization product made based on the advanced high-resolution photoionization Ion Mobility Spectrometry(PIMS). The Explosive/Narcotics Trace Detector, characterized by quick detection, high sensitivity, low power consumption, small size, light weight, portable design, easy maintenance and high adaptability for different conditions /requirements, is suitable for detecting black powder as well as all exploders specified by the International Civil Aviation Organization accurately and widely used for safety inspection, national defense/ security and public safety works in important places such as airports and stations etc.。

2、 Features:

- The first product with exclusive performance for detecting black powders such as fireworks, crackers and commercial explorders, improvised explorders etc. at a nanogram level in the world;
- Quick detection, the result can be obtained within 2s;
- One-key detection, easy operation;
- Provided with a 2.8" TFT color touch screen;
- Provided with a self-cleaning function for interior cleaning of the instrument;
- The operation parameters can be shown directly for checking the instrument for normal operation;
- Open database and trace quantity type detection. The sample database can be updated at any time;

3、 Optional functions:

Single mode and dual mode: Single mode means the detector just has one mode of testing the explosive or drug; and dual mode means the detector has two modes of testing both explosive and drug

Air suction port: Add the air suction port sampling function

USB port: The function of exporting detection results and data through USB.

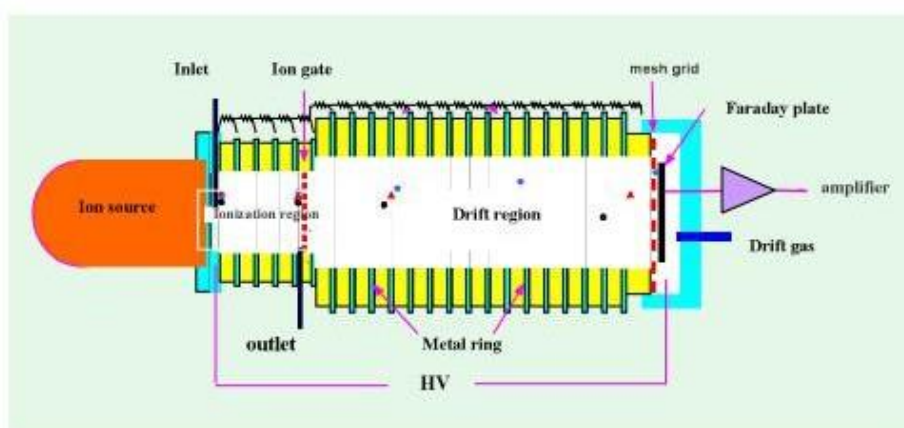
4、 Specifications:

Items	Specification
Technology	High resolution PIMS
Detectable Explosives	Explosives (only appropriate for explosive test mode): Various military, civil and homemade explosives, etc; such as the black powder, ammonium Nitrate (AN), trinitrotoluene (TNT), dinitrotoluene (DNT), trinitrophenylmethylnitramine (Tetryl), pentaerythritol tetranitrate (PETN), gun powder, NG explosive, hexogen (RDX), Semtex explosive and C4, etc; New samples can be added to two detection types according to requirements
Detectable Narcotics	Narcotics (only appropriate for Narcotics test mode): cocaine (COC), heroin, morphine, Amphetamine, tetrahydrocannabinol (THC), dehydrogenation, ephedrine

	methamphetamine, and ecstasy, etc. New samples can be added to two detection types according to requirements
Sampling	Test paper wipe picking
Sensitivity	ng level
Alarming pattern	Audio message+screen information
Analyzing time	≤ 2 s
Warning up time	<20 min
Rate of false alarm	≤1%
Detectable rate	≥ 99%
Working condition	-10℃~55℃ Relative humidity 45%~85%
Power supply	220V AC 50-60Hz/Lithium battery power supply
Power adapter	Input: 220V/AC 50-60Hz; output: 19V/DC
Battery parameter	Lithium battery 14.8V/4400mAh Continuous power supply,no less than 2h
Weight	3.82 Kg
Overall dimension	450mm(L) ×160mm(W) ×200mm(H)
Technical standard	

- ◆ The enterprise passed the ISO9001:2008 quality management system certification;
- ◆ The enterprise passed the OHSAS1 8001 occupational health certification;
- ◆ The enterprise passed the ISO14001 environmental management certification;
- ◆ The product passed the test report of the product quality supervision; inspection and testing center of the security and alarm system of the Ministry of Public Security;
- ◆ The product has passed the EU CE certification;
- ◆ The product has passed the EU ROHS certification;
- ◆ The product passed the US FCC certification;

5、 Operating principle



Principle introduction: Different sample molecules, after thermally desorbed under high temperature in the sample inlet system, enter the ionization zone of the IMS ion migration tube from the sample inlet for ionization by the ionization source, thus neutral molecules can become ions; Then these ions enter the ion migration zone via the ion gate opened periodically and reach the Faraday receiving disc for converting into current signals, which, after being amplified by the operational amplifier, will be sent to the data collecting and processing system. These signals are so called IMS

detected signals.

Different sample molecules form different ratio of ion mass to charge number (mass charge ratio) and therefore the motion velocities are different in the ion migration zone (constant electric field zone) and the time values for reaching the receiving disc are different, too. The IMS can be used to identify the samples based on this migration time difference.

6、 Product structure

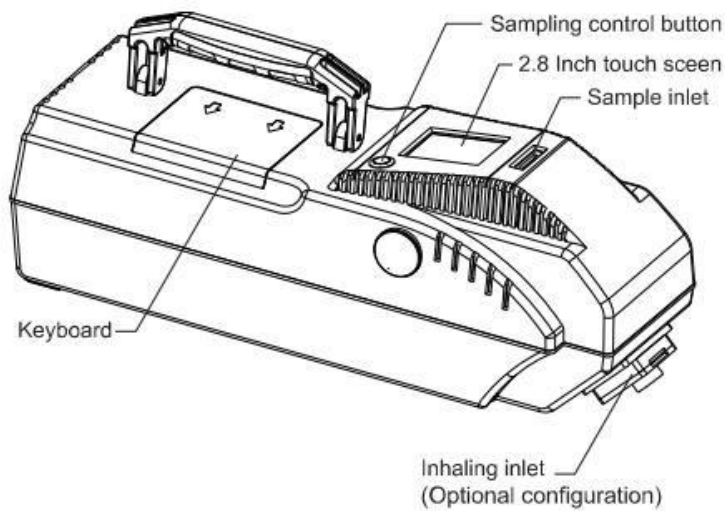


Fig. 3 Top side

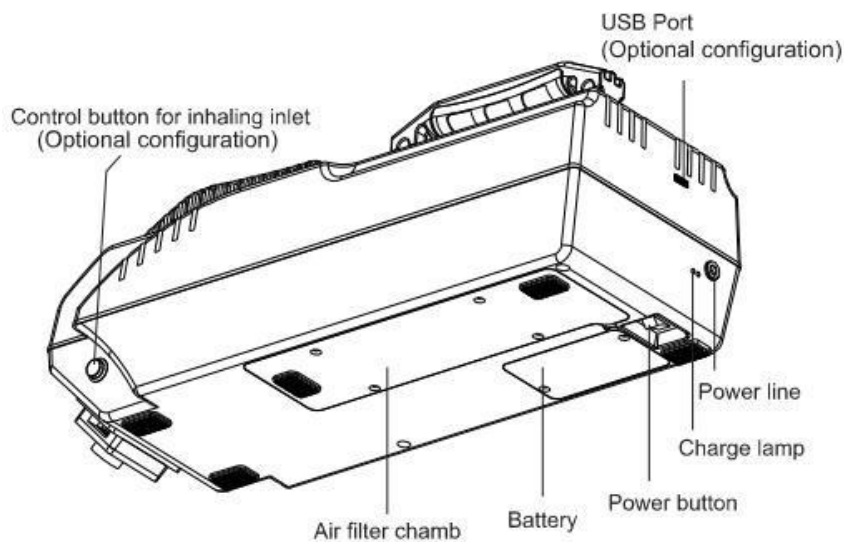


Fig. 4 Bottom side

7、 Product picture

