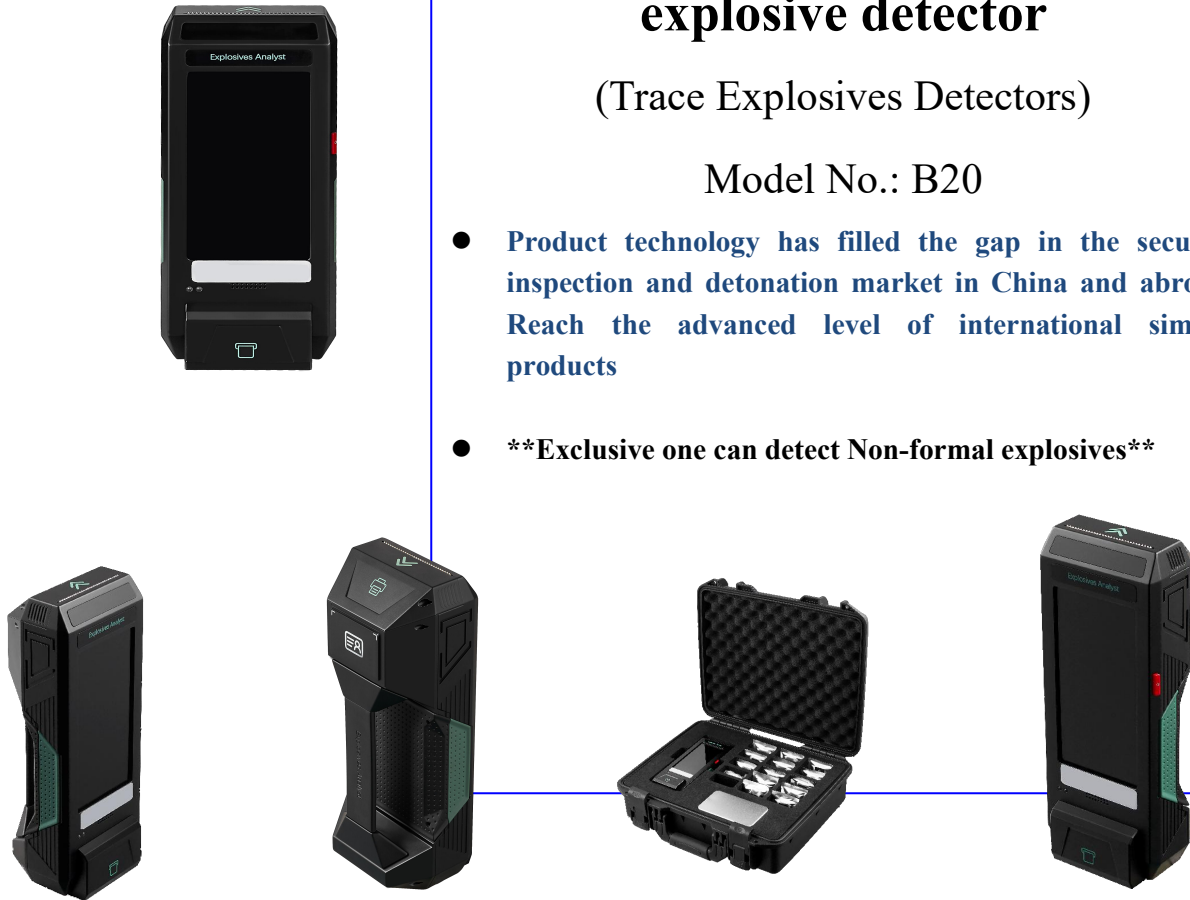


Intelligent Colorimetrics explosive detector

(Trace Explosives Detectors)

Model No.: B20

- Product technology has filled the gap in the security inspection and detonation market in China and abroad. Reach the advanced level of international similar products
- ****Exclusive one can detect Non-formal explosives****



Product Introduction

It is a portable Intelligent colorimetric explosive detector adopts based on **chromatography array recognition principle**, combined with the first international equipment **vision color recognition** through a **single sampling to achieve more than twenty types of formal and non-formal explosives all categories of detection one-step operation intelligent identification instrument**, the only equipment **can detect buried explosive equipment and report its ingredient name** in China and international field .

The instrument has the characteristics of fast detection speed, high accuracy, simple operation, low error rate, low power consumption, small volume, light weight, convenient to carry, easy to maintain, use environment and strong adaptability requirements, in the detection type and anti-interference and anti-pollution capability is superior to other similar technologies ion migration spectroscopy technology, fluorescent polymer sensing technology

Multiple advanced features and functions

- ★ Precise detection: Based on the **principle of colorimetric array recognition and combined with machine vision color recognition technology**, it can accurately identify the **composition types of dangerous goods**, report the **names** of the inspected dangerous goods, and achieve precise detection;
- ★ Trace detection: In practical work, there is no need to aim at the dangerous goods inside the package. Simply wipe the inspected package with test paper to detect whether it carries dangerous goods, and the operation is convenient;
- ★ Diverse alarm: It has various alarm prompts such as **sound, light, color, and text**, and can **customize alarm methods** that do not cause panic according to user requirements
- ★ Easy to operate: **one-step sampling, fully automatic intelligent analysis**
- ★ Full range of detection types: **over 20 types of standard and non-standard explosives**
- ★ Fast recognition speed: Single detection time is **less than 8 seconds**
- ★ Big data analysis function: Real time upload of detection results
- ★ On site evidence retention function: identity information, GPS positioning, and result printing
- ★ **Microgram level detection**: Even very small doses (microgram level) of prohibited explosives can be accurately detected
- ★ **Mixture detection**: It can achieve mixture detection and accurately determine the name of the explosive contained
- ★ Handheld operation: small size, light weight, easy to carry, can be applied to various occasions;
- ★ Multiple protection: With a drop design, it has functions such as impact resistance, vibration resistance, dust resistance, and electromagnetic interference resistance;
- ★ Sturdy packaging: safety box with inner lining, paper box packaging;

Functional configuration/ Technical parameters

PRODUCT MODEL	B20
External dimensions	540*960*80 / mm
Weight (excluding adapter)	1.24 Kg < 1.65 pounds
Weight (including the package)	4.8 Kg
Power supply	7.4V polymer rechargeable lithium-ion battery 2800mAh
power consumption	Standby: 1.1W; Working: 3.2W
Communication interface	WIFI encrypted communication & GPRS data communication USB (Type C, Transfer data)
Main screen size	Full color 4.3 inches, 480x800 resolution
Theoretical battery life	Standby time: 15 hours; Continuous working time: 8 hours; Continuous full charge detection times: 1185 times
Ambient Temperature	-5°C ~ +40°C
Material	ABS+PC galvanized steel sheet
Principle	Color recognition technology based on machine vision Intelligent colorimetric method
Detection type	Suitable for explosives and explosive materials Nitroaromatics, Nitramines, Esters, HMEs, Inorganic Nitrates, Peroxides, Perchlorates, Chlorates, and derivatives
Detect Accuracy	Microgram level
Analysis Time	≤8s
False alarm rate	≤1%
Sampling area	Skin, vehicles, packages, handbags, goods, containers, glass, walls, wood, metal, cement, rubber, fabrics, etc

Standard for detection performance of standard explosives

name	Test solution concentration, sampling volume, and solvent	detection result	Response time (s)
Trinitrotoluene (TNT)	2μg/μL, 1μL, Flux: Acetone	TNT	5~8
Tetral	2μg/μL, 1μL, Flux: Acetonitrile	Sulfur (S) or picric acid (PA) or tretinoin	4~8
Dinitrotoluene (DNT)	6μg/μL, 1μL, Flux: Acetone	DNT	4~8
P-nitrotoluene (PNT)	15μg/μL, 1μL, Flux: Acetone	PNT	4~6
Bitter acid (PA)	15μg/μL, 1μL, Flux: Acetone	Sulfur or PA or Tequila	4~8
RDX (RDX)	6μg/μL, 1μL, Flux: Acetone	Nitrite or nitroamine, nitrate esters (RDX, HMX, PETN, C4)	5~8
HMX (HMX)	6μg/μL, 1μL, Flux: Acetone	Nitrite or nitroamine, nitrate esters (RDX, HMX, PETN, C4)	5~8
Tai'an (PETN)	50μg/μL, 1μL, Flux: Acetone	Nitrite or nitroamine, nitrate esters (RDX, HMX, PETN, C4)	6~8
Black Powder (BP)	40μg/μL, 1μL, Flux: Acetone	Suspected black powder (nitrate, sulfur)	5~8
AN-TNT	10μg/μL, 1μL, Flux: Acetone	Suspected ammonium ladder explosive (nitrate, ammonium salt, TNT)	6~8
composition b	100μg/μL, 1μL, Flux: Acetone	TNT、 ammonium salt	6~8
8701	20μg/μL, 1μL, Flux: Acetone	Suspected 8701 explosive [1DNT, 2 nitrite or nitroamine, nitrate esters (RDX, HMX, PETN, C4, etc.)]	5~8
C4	10μg/μL, 1μL, Flux: Acetone	Nitrite or nitroamine, nitrate esters (RDX, HMX, PETN, C4)	5~8
TATP	15μg/μL, 1μL, Flux: Acetone	Peroxides [TATP, HMTD, hydrogen peroxide, calcium peroxide, etc.]	5~8
ammonium nitrate	15μg/μL, 1μL, Flux: Acetone	Nitrates and ammonium salts	5~8
Ammonium sulfur explosive	\	Suspected ammonium sulfur explosive (sulfur,	5~8

nitrate, ammonium salt)

Performance standards for detecting non-standard explosives

name	Test solution concentration, sampling volume, and solvent	detection result	Response time (s)
sulfur	10μg	Sulfur or PA or Tequila	≤8
Nitrocellulose	\	Nitrite or nitroamine, nitrate esters (RDX, HMX, PETN, C4)	≤8
potassium nitrate	10μg	nitrate	≤8
urea	10μg	Urea and its derivatives	≤8
Ammonium Chloride	10μg	ammonium salt	≤8
Ammonium oxalate	\	ammonium salt	≤8
Potassium chlorate	10μg	Chlorate or perchlorate	≤8
Potassium perchlorate	10μg	Chlorate or perchlorate	≤8
potassium permanganate	10μg	Permanganate (potassium permanganate, etc.)	≤8
Sodium nitrite	10μg	Nitrite or nitroamine, nitrate esters (RDX, HMX, PETN, C4)	≤8

Product Comparison

Model/Image					
		QS-H150	Fido X3	ACE-ID	GAC-de
Origin	China	America	America	America	America
Technology	Colorimetric array	Ion mobility spectrometry	Fluorescence spectrum	Raman spectra	Chemical colorimetry
Standard explosive materials	●	●	●	●	●
Non standard explosive materials	●	◎	○	◎	◎
Full category detection	●	○	○	○	○
Anti-interference	●	○	○	○	●
Anti-pollution	●	○	○	○	●
Mixture detection	●	○	○	○	●

Note:

"●" in the table indicates the presence of this configuration,

"○" indicates the absence of this configuration, and

"◎" indicates the presence of some measurable features

Explanation of the definition of Homemade explosives

Homemade explosives means that use non military explosive materials.

Commonly used materials include fertilizers, saltpeter, nitrate, chlorate, perchlorate, ammonium nitrate, potassium permanganate, sugar, urea, sulfur, charcoal, metal powder (which cannot be tested), etc; Simple non-standard explosives are prepared through methods such as roasting and soil refining, mainly including black powder,

acetone triperoxide, ammonium oil explosives, ammonium ladder explosives, ammonium sulfur explosives, etc;