

Meets  
**ECAC**  
Standard  
*Pax & Cargo*



## Explosives Trace Detection

● Explosives Threat Mitigation: Bruker **DE-tector**

# Choose Innovation – Choose Bruker

Bruker is recognised as the leading authority on the use of detection and identification technologies to mitigate the threat from the accidental or deliberate release of toxic gases, explosives and radioactive materials that could kill and injure civilians.

We offer the world’s most comprehensive range of threat detection and identification solutions and can help you to assess how these can be best employed to protect people and property.

We develop, manufacture and supply technology worldwide for a range of customers and end users that need to protect people and property.

These include, but are not limited to governments, commercial enterprises and multi-national corporations who need to protect their employees and clients from the ever-increasing threat from terrorism.

Bruker is strongly committed to meeting its customers’ needs by continuing to revolutionise the design, manufacture and distribution of detection tools based on our core technologies; by providing solutions that are regarded as the ‘Gold Standard’ by threat mitigation experts.



# Explosives Trace Detection: DE-tector

The concept of access control for critical infrastructure is well understood. However, when such controls need to be applied to members of the public, then additional security measures are required. For example, in airports and prisons, there is a requirement to screen the public to determine whether they have been in contact with explosives (airports) or narcotics (prisons). This is readily achieved by a trace detector, because these prohibited substances contaminate personal effects, even after washing.

The Bruker DE-tector is a trace detection system that fulfils the requirements of these two typical applications perfectly. By swabbing an individual’s property with a non-scratch, disposable swab and inserting it into DE-tector, traces of these two classes of substance can be identified automatically; and within a matter of seconds.

The Bruker DE-tector employs industry-standard IMS (Ion Mobility Spectrometry) technology, but unlike most other instruments, it uses a non-radioactive source. Together with a low consumables burden, our new HEPI source reduces your through life costs by minimising your compliance requirements.



### Why specify DE-tector?

- Industry-Standard IMS detection technology  
*Time proven technology - the de-facto standard*
- Twin IMS tube system  
*For better detection sensitivity*
- Detects trace explosives and trace narcotics  
*Meets your needs in a single instrument*
- Non-radioactive HEPI source  
*Patented source reduces the compliance burden*
- Meets ECAC Standard for Pax and Cargo  
*You benefit directly from the legislative testing*
- Re-useable sampling swabs  
*Reduces your operating costs / cost per test*
- Uses the Bruker acclaimed “Traffic Light” software  
*Simplifies operation in a pressured environment*
- Reduced ownership costs  
*Through minimum (one year) service intervals*
- No calibration/verification  
*Simplifies day to day operation*
- CE Marked  
*Conforms to harmonised CE standards*

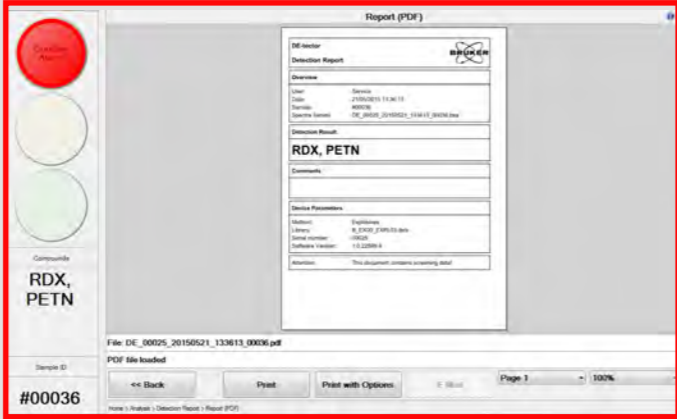
The DE-tector was the first European-built explosives trace detection instrument to pass the demanding ECAC testing protocol, which was established to set standards for the performance of security equipment across the forty four member nations of ECAC.

# DE-tector Software Overview

The Bruker DE-tector software uses our acclaimed traffic light concept to simplify the display of the instrument status. This eases the burden on operators who often have to work in a pressured environment.

## 5. Print Preview

This screen allows the operator to see how the report will appear before it is sent to the integrated printer. The printed data, along with detailed analysis information, is automatically stored in an encrypted form and may be recalled at any time.



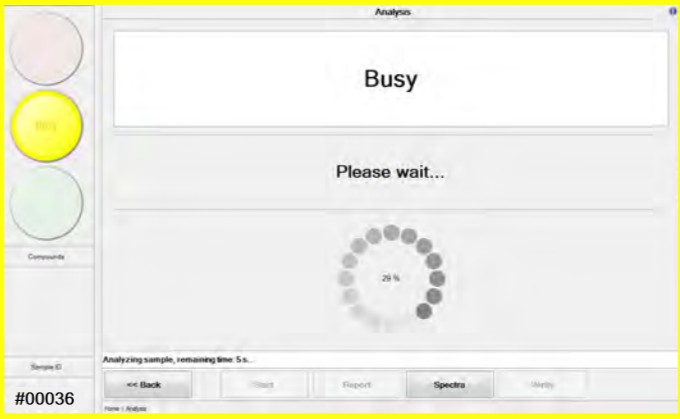
## 1. Start

A green icon, before a measurement starts, shows DE-tector is ready to use. If suspicious substances have not been detected this same display is used at the end of a measurement, and shows DE-tector is ready for the next task



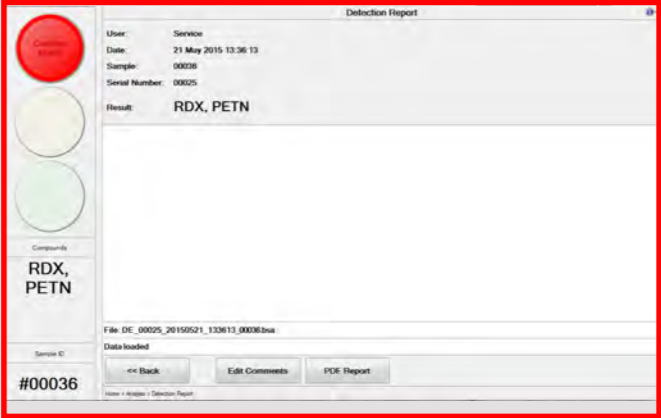
## 2. Measurement

During the seconds that DE-tector takes to make a measurement, a yellow icon shows it is 'busy'. This is complemented by a plain text message and a rotating timer icon. The remaining measurement time is shown.



## 4. Alarm Data Entry

By selecting the report button on the prior 'Detection' screen, the operator has immediate access to a data entry display. Here, relevant data about the detection event may be entered using the touch screen's keyboard.



## 3. Detection

When an illegal substance has been detected, a red icon linked with an audible alarm alerts the operator. A clear text message acts as the final confirmation. The detected material is identified by name(s) shown on the left of the screen.





DE-tector

WE use a  
**HEPI**  
(non-radioactive)  
source



## DE-tector: At a Glance

### SUMMARY SPECIFICATIONS

Detector Type:	Twin tube IMS detector
IMS Source:	Non-radioactive HEPI Source
Sample Type:	Trace Particulates
Sample Trigger:	Automatic on swab insertion
Software Type:	Traffic Light User Interface
Software Operation:	Touch Screen
Analysis time:	<8 seconds
Printer:	Integrated thermal printer
Accreditation:	ECAC for Passenger and Cargo
Size:	L=513mm x W=435mm x H=380mm
Weight:	18kg
Power:	96V AC to 240V AC, 47 to 63 Hz
Consumption:	150VA nominal , 350 W max.
Data (LAN):	Gigabit LAN, RJ45
Data (USB):	USB 3.0, Type A.

*Current specifications of the Bruker DE-tector can be found in the Product Specification Sheet (PSS), a copy of which is available on request.*

### COMPONENTS INCLUDED WITH ALL SYSTEMS

- Pack of 120 sample collectors (swabs)
- Sampling Wand
- Test Sample (Marker, TÜV-certified)
- List of substances in Explosives library
- List of substances in Narcotics library
- Operator Manual

### OPTIONAL ACCESSORIES

- Bruker Service Contracts
- Off-line data analysis packages
- Mobile Cart with locking drawer
- Uninterruptible Power Supply (UPS)
- Telescopic extension to sampling wand
- Nitrile Gloves (Pack of 100)
- Dust Cover

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# Global Resources – Local Focus



Bruker has support centres of technical expertise in every major area of the world providing sales, applications and engineering support for our complete product range. With more than 6,000 employees at 90 locations worldwide you can be confident that the support team fronts a uniquely integrated global resource. Research and development specialists, applications professionals and highly trained engineers in every field are dedicated to your investment in our equipment.

## Superior Detector Performance

For highly sensitive detection, identification and quantification of chemical, biological, explosive and radiation threats. Superior performance and high reliability comes as standard.

## Applications Support

Systems are configured to meet your needs and result from our detailed evaluation of your requirements.

## Standards & Compliance

All our systems are manufactured in ISO9001 compliant factories; so you can be assured of superior quality and performance.

## Software & Data Systems

Designed to industry standards on the Microsoft® platform, our software can be integrated with your security management software.

## Training

User Training and User-Level Maintenance is part of our standard Scope of Supply. Our goal is simple; to minimise your cost of ownership.

## Low Maintenance

All our systems are designed for extended maintenance periods and reduce the through-life-costs of your investment.



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