

Identification is a critical challenge in the evaluation and mitigation of potential explosives threats. With Thermo Scientific TruDefender analyzers, law enforcement, military and civilian explosives experts can obtain reliable identification of military-grade explosives as well as HMEs, IEDs and precursors in seconds.

Thermo Scientific TruDefender FTX and TruDefender FTXi

Handheld FTIR for Explosives Identification



Thermo Scientific™ TruDefender™ analyzers are rugged, handheld FTIR systems for rapid identification of unknown chemicals including explosives, narcotics, toxic industrial chemicals and precursors. They bring the power of FTIR directly into the hazard zone, enabling the responder to analyze—and act—faster than ever before.

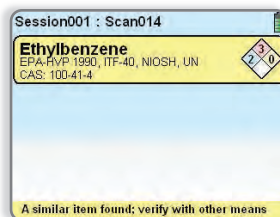
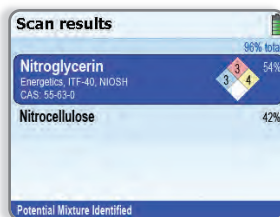
Lightweight and easy to use, TruDefender FTX analyzers include an anvil sampling head for easier sampling and decontamination. The self-contained anvil mechanism ensures there are no friction points or crevasses that may trap debris or explosive residue. The variable pressure anvil allows the user to apply appropriate pressure for a given substance to further minimize risk.

The TruDefender FTXi instrument adds to the core functionality by providing a direct link to incident command or reach-back support through embedded mobile phone technology.



Key Benefits:

- **Fast, accurate identification.** Returns results in seconds, even for complex mixtures.
- **Embedded mobile phone technology.** Send results via e-mail or SMS text directly from the hotzone with the TruDefender FTXi model.
- **Easy to use.** Intuitive, menu-driven interface for fast training and proficiency.
- **Improved sampling.** Large sampling surface and fully rotational anvil for easy sample placement.
- **Built for field use.** Smallest, lightest military-rugged FTIR spectrometer on the market. Certified to MIL-STD 810G for ruggedness.
- **Easy to clean.** Contoured edges and self-contained anvil mechanism ensure easy decontamination.
- **Worry-free maintenance.** Requires no scheduled maintenance, calibration, warm up or mirror alignment.



Clear analysis results require no user interpretation.



Self-Contained Mechanism

With the anvil mechanism fully contained within the contoured, highly-polished arm, there are no entrapment points that could make decontamination more difficult.

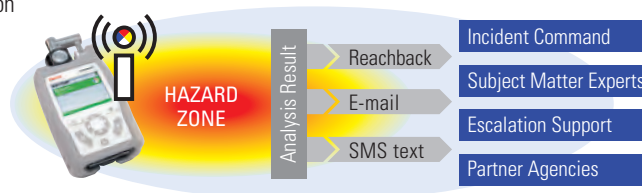


Variable Pressure, Safer Response

The TruDefender FTX anvil allows the responder to adjust how much pressure is applied to a given substance.

Integrated Mobile Phone Technology

With the TruDefender FTXi instrument, users can send comprehensive analysis results, including chemical name, CAS number and spectra, directly from a hazard zone to incident command or Thermo Scientific reachback support. This wireless capability reduces communication challenges and transcription errors, ensuring the incident commander has the information needed to appropriately respond to a threat as quickly as possible.



Thermo Scientific TruDefender FTX and TruDefender FTXi

Specifications	TruDefender FTX	TruDefender FTXi
Weight	3.12 lb (1.41kg)	3.6 lb (1.63kg)
Size	8.9 x 4.5 x 2.1 in (22.61 x 11.43 x 5.33cm)	8.9 x 4.5 x 2.39 in (22.61 x 11.43 x 6.07cm)
Spectral Range	4,000cm ⁻¹ to 650cm ⁻¹	
Spectral Resolution	4cm ⁻¹	
Collection Optics	Solid Diamond Crystal ATR	
Operating Frequency	n/a	Quad band GSM - 850, 900, 1800, 1900MHz
Survivability	Independently tested for MIL-STD-810G and IP67 certification	
Data Export Formats	SPC file (for use in standard spectroscopic software), text file, or JPEG report	SPC file, text file or JPEG report; downloadable or send via SMS text, e-mail or direct to reachback
Battery	Removable and rechargeable lithium ion battery or 123a (e.g. SureFire™) batteries; >4 hours operation	
External Power Supply	Wall plug transformer 100-240 VAC 50/60 Hz	
Operating Temperature	-4 °F to 104 °F (-20 °C to +40 °C)	
Languages (Optional)	English, Chinese, German, Russian and Arabic (English Library)	

Complete MIL-STD-810G test results available upon request.

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