

PX 5.3

Security X-ray Inspection System

**SECURITY
DETECTION**
METAL DETECTORS X-ray MACHINES

Best-in-class imaging in a compact X-ray security system.

The compact PX 5.3 security X-ray inspection system delivers an unbeatable combination of dual-energy imaging with high throughput and flexibility. Suitable for space constrained applications and settings, the PX 5.3 allows operators to efficiently and accurately screen briefcases, backpacks, parcels, packages and other small to medium-sized objects. Superb imaging capabilities facilitate the rapid detection of multiple threats, including weapons, narcotics, explosives and other contraband.

With the available heavy-duty castors for mobility, the PX 5.3 easily passes through a standard doorway. From schools, office buildings, courthouses, correctional institutions and cruise ships, the versatile PX 5.3 provides a reliable and economical solution anywhere security X-ray inspection is a priority.



Monitor included

APPLICATIONS

- Threat detection
- Contraband detection
- Regulatory compliance/inspection
- Manifest and declaration verification

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Image Performance:

Superb Resolution and Clarity

The advanced imaging capability of the PX 5.3 raises the standard for compact sized X-ray screening systems. Powerful imaging technology and analysis tools allow users to quickly and accurately spot threats and contraband. L-3's patented TRI-MAT dual-energy imaging discriminates between organic and inorganic materials and metallic objects.

Remarkably easy to use, the user interface gives operators and analysts the tools necessary to generate precise, richly detailed images. With a full complement of powerful image enhancement tools at their fingertips, operators can readily examine questionable objects and quickly determine the presence of true threats. The system's innovative "slide and see" continuous contrast adjustment capability lets screeners emphasize an object's smallest details, regardless of density. The unique Best Image First™ feature automatically selects and presents the optimal view, enhancing throughput by reducing repetitive image adjustments.

Configurable:

Operational Flexibility

Featuring easy-to-configure software-based controls and tools, the PX 5.3 easily adapts to diverse and demanding operational requirements and evolving security challenges.

- The PX 5.3 conveyor is available in short and long lengths to accommodate varied space requirements
- Bi-directional operation allows two-way screening for facilities requiring inspection upon entering and exiting, such as prisons and enterprises with high theft potential.

The Operator Interface:

Intuitively Simple

L-3's patented operator interface provides a simple, intuitive and flexible way for users to control the system and make the most of imaging information. Ergonomically designed to promote rapid learning and ease of use, the interface combines three-button conveyor control with a touch-sensitive pad that allows continuous heads-up operation using icons displayed on the viewing screen. The system's console is ergonomically engineered to minimize operator fatigue and reduce the physical stresses associated with prolonged screening. Multi-lingual support for operational, instructional and system messages.

Networking:

Bringing It All Together

The fully networkable PX 5.3 streamlines decentralized and remote monitoring, reporting, and system management to help keep operational costs in line. Supervisors with appropriate network privileges can access any scanner or workstation on the LAN to send and receive bag images, TIP images, configuration settings, operator reports, diagnostics and operational metrics. This network capability, common to all L-3 PX second generation systems, has been designed to exceed current and emerging requirements.

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L-3's patented operator interface (remote console option shown) combines 3-button conveyor control with a touch-sensitive pad that allows continuous heads-up operation using icons displayed on the viewing screen

Operator Tools:

Reliability at Your Fingertips

The PX 5.3 offers operational flexibility and delivers an array of unique features that give operators the information they need to hold or clear suspicious items.

- Proven image analysis tools allow operators to easily distinguish between organic and inorganic materials and objects having a similar appearance but different chemical composition
- User-friendly image enhancement tools, including continuously adjustable contrast, sharpening, and color overlay, make it easy to optimize images for maximum detection capability
- Threat Image Projection (TIP) option inserts fictitious threat images at periodic intervals and tracks operator responses, motivating operators to stay alert and allowing supervisors to assess the effectiveness of screening operations
- Conveyor available in short and long lengths to accommodate varied space requirements
- Customizable, user-defined Image Archiving stores more than 20,000 images

Features

Imaging Features

- Continuously variable contrast adjustment
- Tri-material discrimination
- Transparent Color™
- Best Image First™
- Organic/inorganic stripping
- Metallic item removal
- Pseudo-color overlay
- True 32-bit color processing
- Edge enhancement
- Zoom 2X – 16X or continuous zoom to 64X
- Reverse video
- Threat alert
- Density alert

Standard Features

- Compact design
- Patented heads-up operator display interface with touch pad control
- Configurable operator interface
- Side-mounted operator interface
- Multi-lingual support
- Operator Assist® (OA)
- Image Archiving (IA)
- Network ready
- Uninterruptible power supply (UPS) and input line filter
- Short conveyor length (1228 mm/50.7")
- 17" color monitor

Optional Features

- Threat Image Projection (TIP)
- Network TIP server
- Network Supervisor
- 19" color monitor
- Operator-proximity sensor
- Roller tables and slide tables in modular 0.5 m and 1.0 m lengths
- Message display center
- Conveyor length option: long (2228 mm/87.7")
- External UPS
- Color printer
- Remote operator interface (5 m, 30 m, and 100 m)
- Ruggedized Mobility Kit (RMK): 152.4 mm (6") locking shock-absorbed wheels, system tie-down/hold-down points
- Entry/exit shrouds

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Specifications

Tunnel Opening:	516mm (20.3") wide x 330 mm (13") high
Conveyor Height:	845 mm (33")
Power Requirements:	10 100-240 VAC $\pm 10\%$ 50/60 Hz $\pm 1\%$ 1.0 KVA max
Conveyor Speed:	0.22 m per sec +2/-8% @ 50 Hz 0.26 m per sec +2/-8% @ 60 Hz
Conveyor Capacity:	100 kg (220 lbs)

X-ray Source

Voltage:	150 kV constant potential tube
Duty Cycle:	100%
Cooling:	Sealed oil bath
Beam Orientation:	Vertically upward
Detector Configuration:	L-shaped array

Physical Specifications

Height:	1281 mm (50.4")
Width:	732 mm (28.8")
Length:	Short conveyor: 1228 mm (50.7") Long conveyor: 2228 mm (87.7")
Weight:	400 kg (882 lbs) approximate weight with short conveyor

Environmental

Operating Temperature:	0° C to 40° C (32° to 104° F)
Storage Temperature:	-20° C to 50° C (-4° to 122° F)
Humidity:	0 to 95%, non-condensing
Airborne Noise Level:	<70 dB (A)

Imaging and Performance (Preliminary)

Wire Resolution:	38 AWG guaranteed, 40 AWG typical
Penetration:	32 mm of steel
Contrast Sensitivity:	4096 gray level stored
Display Monitor:	17" Optional 19"
Computer Processor:	Intel Pentium®
Throughput:	>700 bags/hour

Radiation Safety

All L-3 Communications Security & Detection Systems' X-ray systems are certified to be in full compliance with all radiation safety requirements and external emissions limits as specified in the United States Code of Federal Regulations, Title 21, Section 1020.40 (21 CFR 1020.40) that apply to our products. Typical leakage radiation is less than 0.1 mR/hr.

Operational Standards

- Complies with the U.S. Code of Federal Regulations: FAA 14 CFR 108.17 Use of X-ray Systems
- FAA 14 CFR 108.20 Use of Explosive Detection Systems
FAA 14 CFR 129.26 Use of X-ray System
- CDRH 21 CFR 1020.40 Cabinet X-ray Systems
- UL/CSA NRTL certification to UL 61010-1 and CE compliant.
- Complies with CDRH (FDA) requirements, including all labeling requirements.
- Film Safety: Ten passes of ISO 1 600/33DIN high-speed photographic film.

