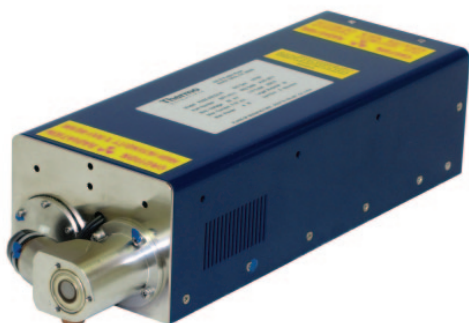
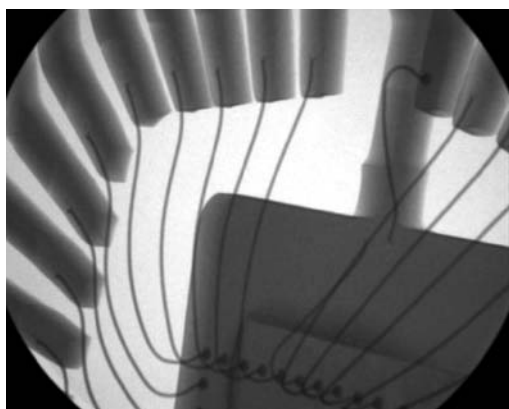


The Thermo Scientific X-Ray product line has been providing quality X-Ray sources to the industrial and medical imaging markets since 1978. Known and respected for innovation and superior microfocus technology, we are proud to introduce the next level of completely integrated, high resolution, digital 90 kV X-Ray source – the Thermo Scientific PXS5-927 microfocus X-Ray source.

Thermo Scientific PXS5-927 MicroFocus X-Ray Source 90kV



Thermo Scientific PXS5-927 X-Ray sources feature an integrated design with X-Ray tube, power supply, and control electronics in one package.



Lead frame with wire bonds



Description. The Thermo Scientific PXS5-927 is a digitally controlled 90kV microfocus X-Ray source for use in imaging applications requiring the highest resolution. The small spot size and high magnification, combined with stable output allow superior quality 2D and 3D images. It combines the end window X-Ray tube, high-voltage power supply, and controller in one compact package powered from a 12 VDC source.

Applications. The high-performance Thermo Scientific PXS5-927 X-Ray source is the ideal choice for:

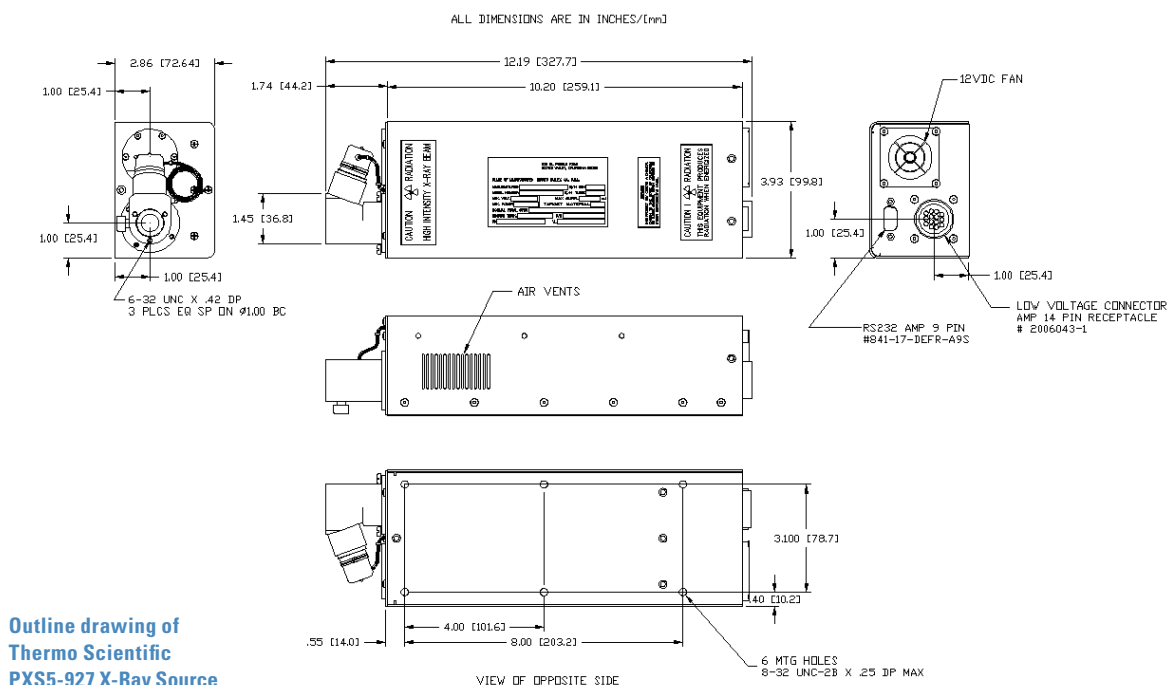
- Manual inspection of printed circuit boards and electronic devices
- Nondestructive test requiring high-resolution imaging of metal and plastic parts
- Micro-CT imaging for industrial and life sciences applications

Benefits. Thermo Scientific PXS5-927 X-Ray sources offer many attractive features:

- Small, round spot optimized over the range of operating voltage and power for distortion-free images
- < 5 micron spot for highest resolution imaging
- 8.5 mm spot-to-window spacing provides exceptional geometric magnification
- X-Ray tube, power supply, and control electronics in one compact package make system integration easy
- Auto-conditioning ramps source up slowly as required by the time source has been off
- Digital Interface allows user access to diagnostics and operating logs. Source can be operated with the supplied Windows® graphical user interface or using the included Software Interface Specification.

Thermo Scientific PXS5-927 Specifications

Operating Voltage Range	20-90kV
Maximum Power	8 watts, 45-90kV
Maximum Beam Current	.178 mA @ 45kV
Spot Size	5 microns @ 4 watts, 45 to 90kV 9 microns @ 8 watts, 45 to 90kV
Spot Ellipticity	±10% @ 8 watts, 90kV (either axis referred to average)
Cone of Illumination	45° round beam
Spot to Window Spacing	8.5 mm (.33 in.)
Window Diameter	Approximately 11.7 mm (.46 in.)
Window Material and Thickness	Beryllium: 0.127 mm (.005 in.)
Target Material	Tungsten
Spot Location Stability	Typically <10 microns in 4 hours after 10-minute warm up
Flux Stability	Typically < +/- 2% in 4 hours after 10-minute warm up
Ambient Temperature and Humidity	0 to 32 °C, 0-95% RH, up to 5,000 feet
Method of Cooling	Internal fan is sufficient for ambient temperature up to 28 °C. Adequate air circulation around unit must be provided. Above 28 °C ambient, cooling air must be directed at the unit.
Shielding	X-Ray leakage behind the X-Ray tube is less than 0.5mR/hour, measured one inch away with Victoreen 190.
Weight	Approximately 3.6 kg (8 lb.)
Input Power	12-14 VDC, 4A
Control Interface	Digital control and monitoring of operating conditions and status through RS-232-C port



Outline drawing of
Thermo Scientific
PXS5-927 X-Ray Source

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320 El Pueblo Road, Scotts Valley, CA 95066
831-438-5940 ph 831-438-5892 fax

www.thermoscientific.com
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