

Glass X-ray Tube

1501 Series | Technical Datasheet



50kV, 50-75W X-ray tube designed for applications where high current, high flux density and continuous operation are important.

The 1501 Series X-ray tube combines high stability and intensity with a design optimized for applications requiring higher current at lower operating potentials. It is ideal for medical imaging, XRF, and high-resolution industrial inspection including PCB assembly, battery analysis, and component testing.

For added convenience, it can be supplied in a stainless steel, lead-lined package filled with dielectric oil, providing superior X-ray shielding and heat dissipation. This configuration simplifies integration with high-voltage and filament connectors for plug-and-play operation.

Available in a wide range of spot sizes, target materials, and configurations, the 1501 Series offers flexibility to meet diverse application and budget requirements.



Benefits

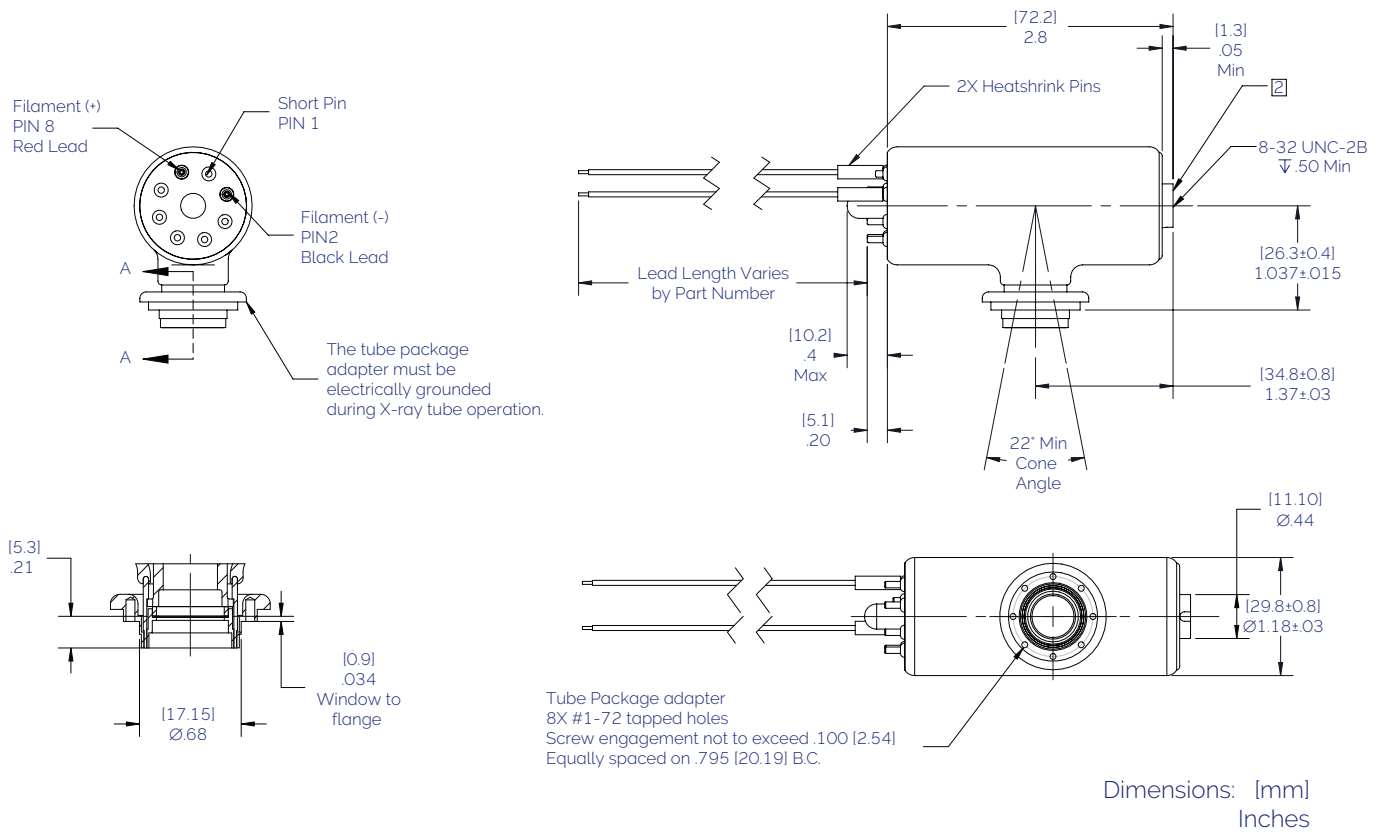
- Continuous operation
- Stable X-ray output delivers high-precision measurements
- Made in USA

Applications

- Analytical XRF
- Coating thickness gauging
- Electronics inspection
- Phase-contrast imaging
- Pre-clinical imaging

Specifications:	
Operating Voltage Range:	4-50kV
Maximum Power:	50-75W
Maximum Beam Current:	2.5mA
Maximum Filament Current:	2.4A
Filament Voltage:	3.75V (Nominal)
Target Material:	Rh, Cr
Spot Size:	125µm (nominal per IEC60336,NEMA XR5-1999)
Cone of Illumination:	22° Minimum
Spot to Window Spacing (FOD):	30.8 mm ± 1mm (1.2")
Window Material and Thickness:	Be @ 127µm
Flux & Current Stability:	0.2% over 4-hour period
Duty Cycle:	Continuous
Ambient Temperature Conditions:	Operating: 0°C to 40°C Storage: -10°C to 50°C
Humidity:	0-95% RH up to 5,000ft
Method of Cooling:	Must not exceed 80°C oil temperature. Customer provides enclosure and cooling.
X-ray Shielding:	Customer must provide enclosure with adequate shielding. Tube emits X-rays in all directions.
Dimensions:	81mm L X 47mm W (3.2" L X 1.8" W)
Weight:	119g

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Product Ordering Table

Part Number	Outline Drawing	Target	Operating Range (kV)	Max Anode Current (mA)	Max Anode Power (W)	Max Filament Current (A)	Spot Size (µm)**
90015	8194	Rh	4 - 50	2.5	50	2.4	200 Max.
90122	8257	Cr	4 - 50	2.0	75	2.4	175 Max.

Note: Part number specific copies of outline drawings and product specification sheets are available.
 **Max. = Maximum, Typ. = Typical, Nom. = Nominal (per IEC60336, NEMA XR5-1999)

visit <https://xray.oxinst.com> for more information

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