

Glass X-ray Tube

1550 Series | Technical Datasheet



50kV, 50W gridded X-ray tube designed for applications where small spot size, tight flux distribution, and continuous operation are important.

The 1550 Series X-ray tube utilizes grid-controlled variable focus to achieve high stability and deliver exceptionally small focal spots. This capability makes it an excellent choice for high-resolution industrial inspection and non-destructive testing, including PCB assembly, battery evaluation, and the inspection of plastic and metal components. Its precision and reliability also make it highly compatible with X-ray optics for advanced imaging applications.

Available in multiple spot sizes and target materials, the 1550 Series provides the flexibility and performance required for demanding imaging environments.



Benefits

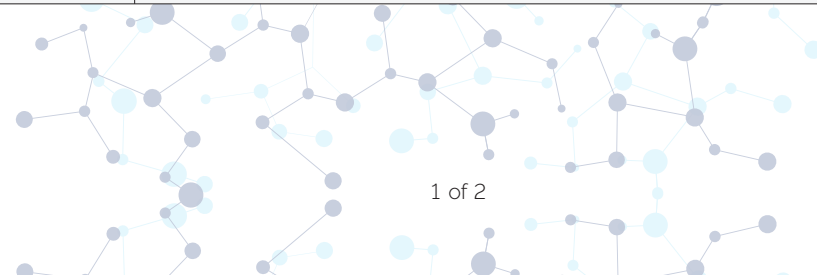
- Continuous operation
- High sensitivity and high-precision measurements
- Stable X-ray output delivers high-precision measurements
- Exceptional image quality
- Made in USA

Applications

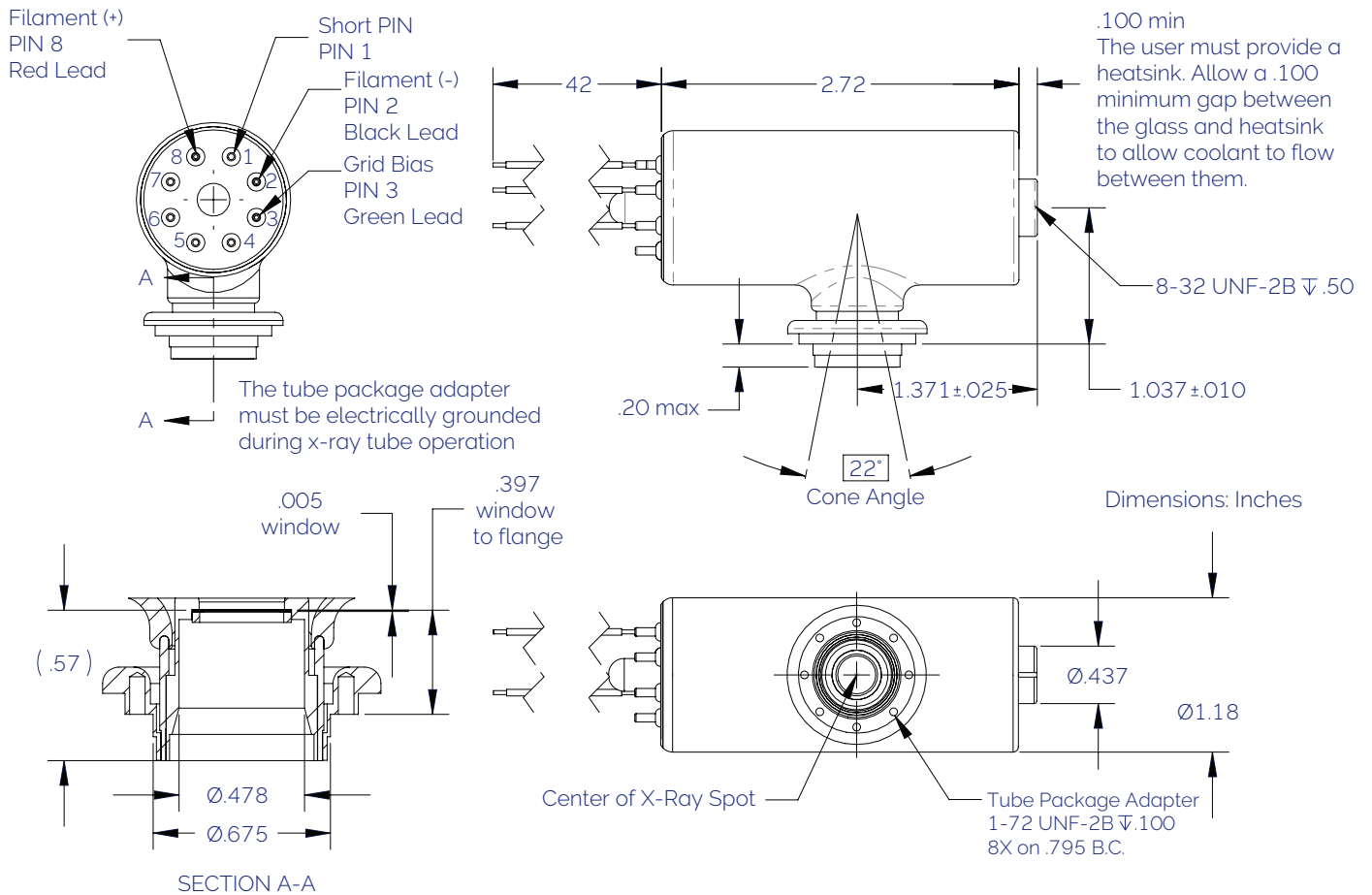
- Analytical XRF
- Rolled sheet thickness gauging
- CT NDT imaging of small parts
- Food and packaging imaging
- Solder joint inspection

Specifications:

Operating Voltage Range:	10-50kV
Maximum Power:	50W
Maximum Beam Current:	1.0mA
Grid Voltage:	0-100V
Maximum Filament Current:	1.70A
Filament Voltage:	2.0V (Nominal)
Target Material:	Cu, W, Mo, Rh
Spot Size:	<50 μ m (X and Y)
Cone of Illumination:	22°
Spot to Window Spacing (FOD):	30.8 mm \pm 1mm (1.213')
Window Material and Thickness:	Be @ 127 μ m
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 (μ m)**
90200	8242	Cu	10 - 50	1.0	50	1.7	50 Max.
90201	8242	W	10 - 50	1.0	50	1.7	50 Max.
90202	8242	Mo	10 - 50	1.0	50	1.7	50 Max.
90204	8242	Rh	10 - 50	1.0	50	1.7	50 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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