High Stability 30kV X-ray Tube

3000 Series | Technical Datasheet

Designed for high flux stability and long life, ideal for continuous operation.

The 3000 Series delivers a cost-effective solution for applications requiring high spectral purity and exceptional flux stability. Each tube is encapsulated in durable silicone rubber for electrical insulation and features a grounded cathode design with a low-attenuation beryllium window for maximum X-ray transmission.

Benefits

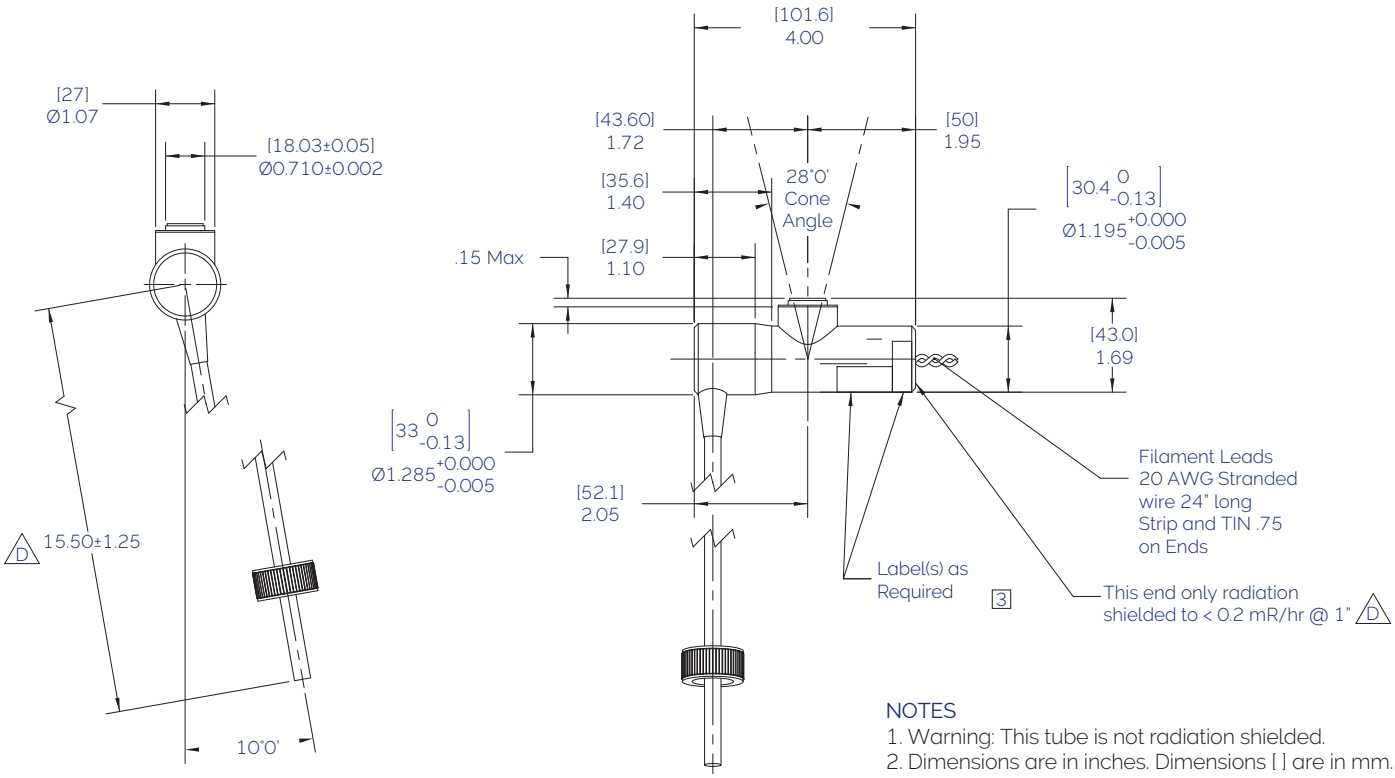
- Continuous operation
- Low-attenuation beryllium window for high transmission of low-energy X-rays
- High sensitivity and high-precision measurements
- Stable X-ray output delivers high-precision measurements
- Integrated high-voltage cable
- Made in USA
- Compact design

Applications

- Analytical (XRF)
- CoatingThickness Gauging
- Particle Analysis
- Rolled sheet thickness gauging
- Soft X-ray radiography

Specifications:	
Operating Voltage Range:	4-40kV depending on product.
Maximum Power:	See product ordering table.
Maximum Beam Current:	See product ordering table.
Maximum Filament Current:	1.3 - 2.0A depending on product.
Filament Voltage:	1.75V (nominal)
Focal Spot Size:	1.0mm (nominal)
Focus to Object Distance (FOD):	28.2mm (1.1")
Target Material:	See product ordering table.
Window Material and Thickness:	Be @ 127µm
Unobstructed Cone of Illumination:	28°
Unobstructed Window Diameter:	10.4mm (.41")
Shielding	Unshielded
Weight:	260g typical.
Cooling Method:	Forced air: 150CFM @ 100mm (4.0") and appropriate heat sink recommended for full power.
Maximum Operating Temp:	50°C at potting surface.
Ambient Operating Temperature:	0°C to 40°C
Storage Conditions:	-40°C to 70°C* *Note: Barometric Pressure: 50-106kPa Humidity: 10-90% (no condensation) Condensation on Be window will cause window corrosion, vacuum loss, and X-ray tube failure

OXFORD INSTRUMENTS



NOTES
1. Warning: This tube is not radiation shielded.
2. Dimensions are in inches. Dimensions [ ] are in mm.

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)**
90004	8145	W	4 - 30	0.5	15	1.3	1000 Typ.
90020	8052	Ti	4 - 30	0.5	15	1.3	1000 Typ.
90036	8053	W	4 - 30	0.3	9	1.3	1000 Typ.
90042	8195	Mo	4 - 30	0.5	15	1.3	1000 Typ.
90053	8204	Mo	4 - 15	1.0	15	1.3	1000 Typ.
90057	8156	Au	4 - 30	0.5	15	1.3	1000 Typ.
90116	8053	W	4 - 30	0.2	6	1.3	1000 Typ.
90118	8052	Fe	4 - 10	1.5	15	1.3	1000 Typ.
90145	8054	Pd	4 - 40	0.3	9	2.0	1000 Typ.
90146	8057	W	5 - 13.6	2.0	27.2	2.0	1000 Typ.
90151	8063	Rh	4 - 30	0.3	9	2.0	1000 Typ.
90152	8063	Ag	4 - 30	0.3	9	2.0	1000 Typ.
90153	8063	Mo	4 - 30	0.3	9	2.0	1000 Typ.

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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