

TFS-5112

Filamentary X-ray Source

TruFocus Ordered P/N	Min. Target Voltage (kV)	Max. Target Voltage (kV)	Max. Target Current (mA)	Max. Tube Power (W)	Focal Spot Size (mm)	Weight (LB)	Target Material	Beam Angle	Cooling Method	Flux Satiability	Filament	Maximum Operating Temp. (°C)	Operation
TFS-5112	4	10	3	12	0.18 – 1*	0.62	Tungsten (W)**	23° Cone Angle	Air Convection Or Conduction	0.2%***	2.5V max @ 2.0 A max	55	Cont'd

* Focal Spot size: Standard = 1 mm. Custom= 0.18 mm

** For different options of Target Materials, see Target Materials Available list below. Tube Specifications are based on Tungsten Target type, other target materials may cause derating of specifications.

*** Does not exceed 0.2% RSD over 4 hours period when used with an appropriate Power Supply



TruFocus developed the TFS-5112 X-ray source for high flux stability and long life when used under continuous operating conditions. TFS-5112 is available in a wide range of target materials and is a cost-effective solution for high spectral purity radiation in demanding applications.

Encapsulated in red silicone rubber, the TFS-5112 features a grounded Cathode and beryllium window. The tube comes with standard 1.0 mm Focal Spot size. 0.18 mm Focal Spot size is available upon request.

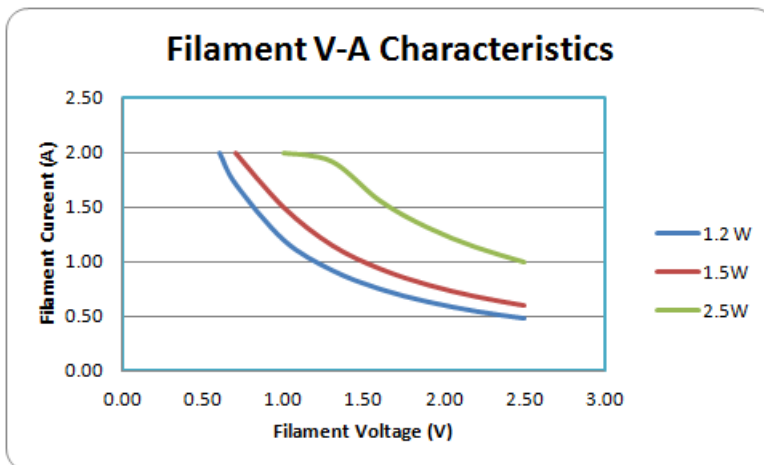
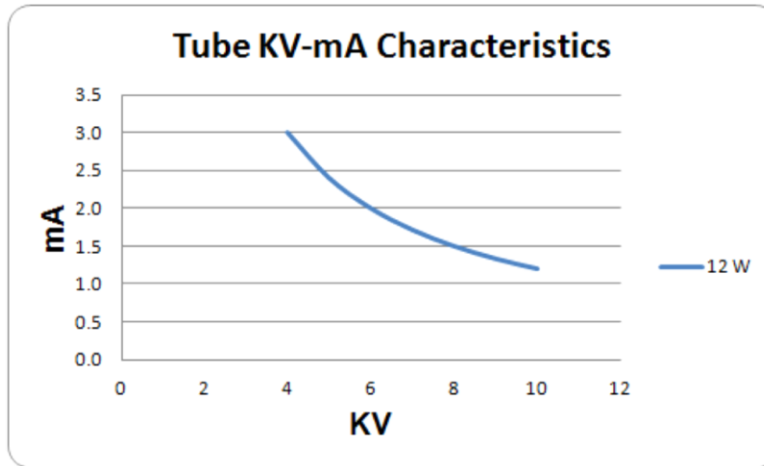
Applications: Densitometry, Spectroscopy, Soft X-ray Radiology, Fluorescence, Stress Analysis, Thickness Gauging, Isotope Replacement

Target Material Available

Ag	Au	Co	Cr	Cu	Fe	Mn
Mo	Ni	Pd	Rh	Ta	Ti	W

Tube Operational Power (TFS-5112)

The limitation of 12W tube operational power is due to the tube packaging. While the Tube can be operated with much higher wattage, the 12W limitation of operational power is solely due to the maximum rate of thermal dissipation of the red Silicone rubber tube housing. If you have need of higher wattage applications, please contact TruFocus.

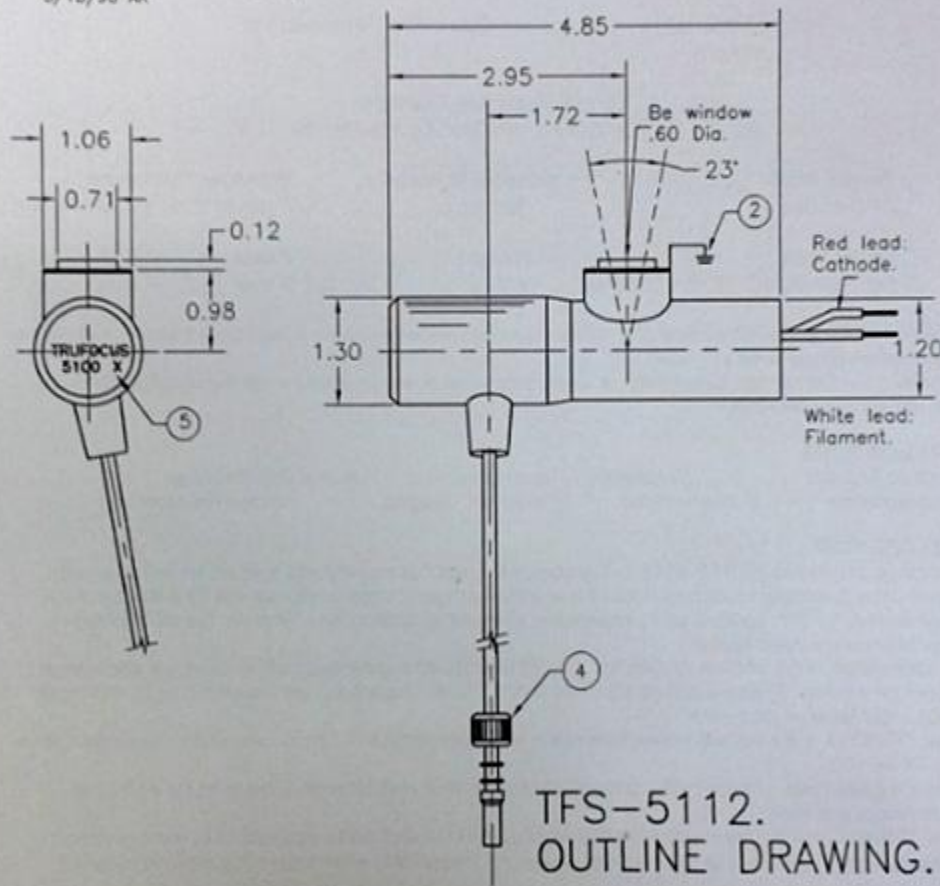


Outline Drawing

NOTES:

- 1) Do not use excessive force on tube body.
- 2) Window flange must be grounded.
- 3) It is user responsibility to ensure that adequate shielding and interlock devices are provided to avoid accidental exposure to the hazards of radiation and or electrical shock.
- 4) High voltage lead shown with "LGH" connector.
- 5) Target material indicated by its chemical symbol.

TFS-5112 Outline Drawing.dwg Rev. A
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Caution

X-Ray Radiation



- 1. X-Ray radiation is harmful to the human body. It is necessary to take all safety precautions when operating this device.**
- 2. The x-ray tube should be installed in an x-ray shielded cabinet to avoid exposure. It is recommended that the safety interlock system be used at all times.**
- 3. It is the customer's responsibility to provide shielding for the use of this device.**

Warranty Information

This x-ray tube is warranted to be free of defects in materials and workmanship for a period of 365 days (1 year). This warranty is limited to repair or replacement of defective products only. This warranty replacement cost to customer shall be prorated over the duration of the warranty period. The warranty period commences on the date of installation, but no later than 30 days from the date of shipment from TruFocus to the customer. Any loss, damage, failure and/or malfunction relating in any way to accident, abuse, alteration, misuse, neglect, fitting, disassembly, attempted repair, storage, adjustments of the electronics, or failure to use the tube within the specifications or operating instructions provided by TruFocus, or the lack of proper routine maintenance and care of the tube or system in which it is installed are expressly denied coverage under this warranty.

Subject to local and technical requirements and regulations. Availability of product in this promotional material may vary. Please consult with our office staff for availability.

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