

# X射线管 TUB0011-CS1B/2B

## X-Ray Tube TUB0011-CS1B/2B



- stainless steel lead-lined package
- 50KV, 50W
- Cooling oil for Heat dissipation
- Cooling Method outside: Forced air

TUB0011-CS1B/2B is a kind of multi-purpose side window X-ray tube which can be used for many industrial applications, the tube body is packaged in a stainless steel package with a choice of mounting flange, and filled with cooling oil to maximize heat dissipation.

This tube is to be operated in a positive anode mode with the cathode grounded, it can completely replace other similar products in the corresponding instruments.

### Application

TUB0011-CS1B/2B can be widely used in RoHS detection, XRF, X-ray thickness measurement, precious metal analysis, density analysis, X-ray imaging, and other X-ray scientific research areas and industrial departments.

### Specifications

Anode Voltage	50KV(Max)
Anode Current	1mA(Max)
Maximum Power	50W
Focal Spot Size (Nominal*)	1B: 1.0 x 1.0 mm ; 2B: 0.1 x 0.1mm
Filament Current	50KV/1 mA If $\approx$ 1.7A
Filament Voltage	$\approx$ 2.0V
Cone Angle	23°
Anode Material	W Rh Mo Ag Cu (other materials optional)
Be Window Thickness	125 $\mu$ m /200 $\mu$ m
Grounding Mode	be operated in a positive anode mode with the cathode grounded
Cooling Method	Forced air @ 150 CFM
Size	See the Size Drawing
Weight	2.5kg



苏州兀象科学仪器有限公司

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### Operation Manual

#### • How to protect the filament ?

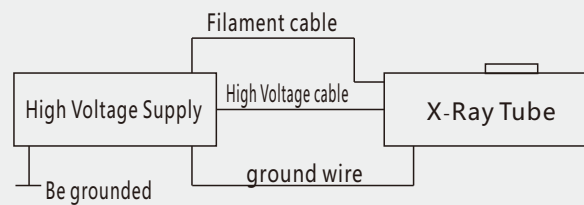
In order to prevent the filament from overheating and melting fracture that caused by high current impact on the filament during the start-up of the filament, the filament circuit of the instrument should be able to make the starting current of the filament rise slowly. the initial setting value suggested to be less than 1A, and slowly increase to the required filament current according to the selected tube current. The normal filament current of the instrument is 1.8A, Max limit should be less than 2A, tube voltage must above 4KV, low tube voltage and high current should be avoided.

#### • How to use high voltage cable ?

The cable must be kept dry to avoid the electric arc damage the tube/high-voltage cable/high-voltage power supply, it is recommended to wipe and dry with clean alcohol cotton before use, and the electrical insulating compound must be used correctly as required. The joint of the cable should be welded firmly to prevent the cable head falling off, and the high-voltage cable should also be firmly connected to avoid the large angle bending or crossing or touching any sharp objects in using.

#### • How to connect the X-Ray Tube ?

The shell of the X-ray tube must be ground connection to avoid the risk of electric shock due to the high-voltage instability and discharge.



#### • Be attention of the X-Ray Protetion

X-ray tube will produce X-ray during the working process, as a component used of the instrument, this X-ray tube cannot be used independently. In the process of testing and using, it is necessary to add appropriate radiation protection according to the voltage to ensure safe use.

#### • How to cooling the X-Ray Tube

Be make sure that the air volume is more than 150 CFM and the shell temperature must be less than 55 °C during use, temperature sensors can be used for temperature control, and we suggest to reduce the power in case of insufficient cooling conditions.

#### • Environment of using and storage

Environment temperature: 5-30 °C Air humidity: < 70%

Keep the environment clean and dry, no smoke, no dust, no corrosive gas, no combustible gas. This product belongs to fragile part please handled with care, be careful to protect Be window during use.

**▲ PLEASE READ ALL OF THESE CAREFULLY AND NOTE THAT ALL DAMAGES CAUSED BY IMPROPER USE ARE NOT COVERED BY THE WARRANTY.**



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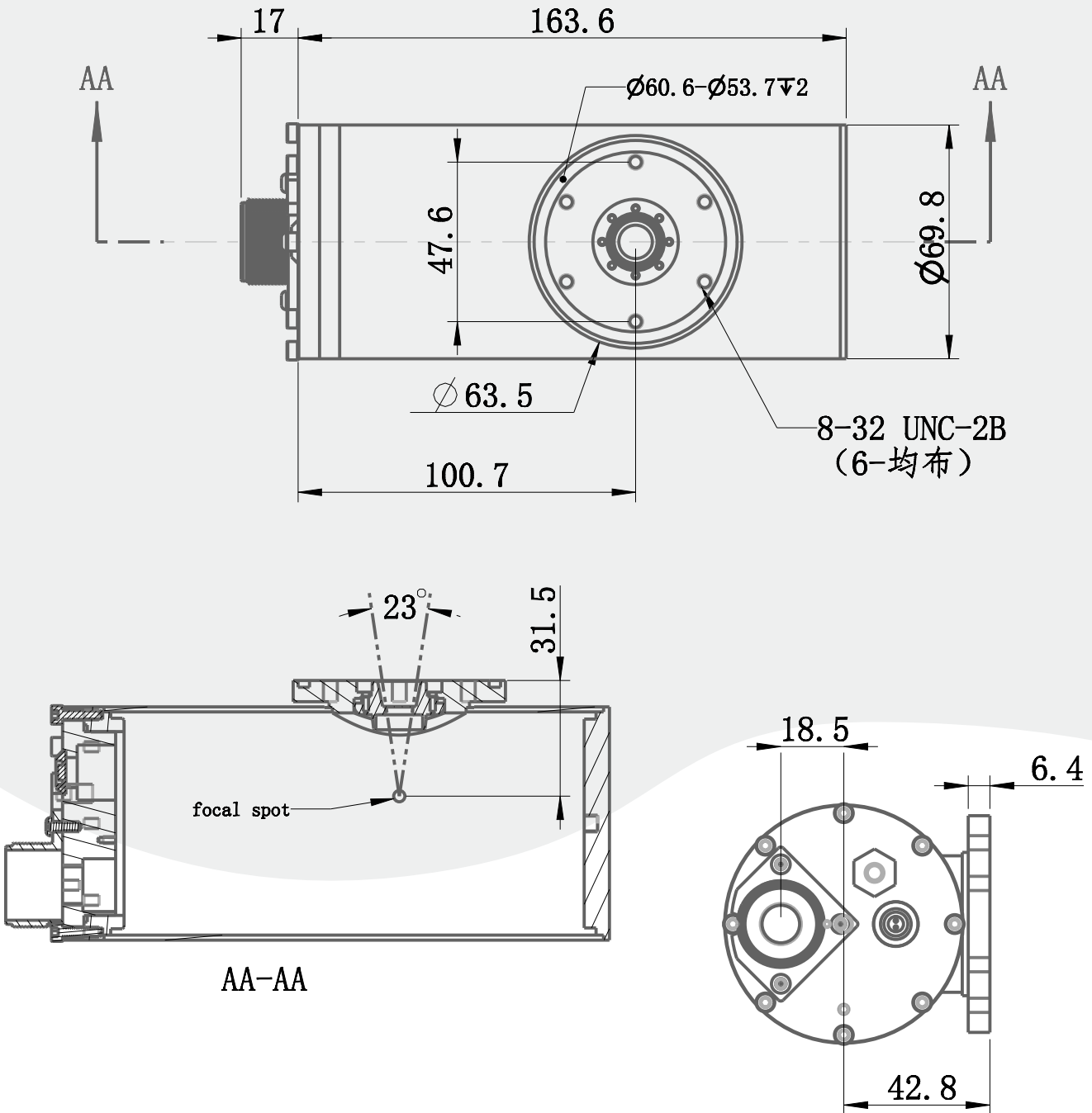
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SIZE (mm)



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