

SPR30Si (V0) Datasheet

(Version No. A0)



◆ Product characteristics

The SPR30Si is a kind of multi-purpose side beryllium window X ray tube housing, which is encapsulated in silicone rubber and low attenuation Beryllium window. The anode of this X-ray tube housing is connected to high voltage, and the cathode and window are grounded.

The SPR30Si has been developed for high flux stability, long life, and high spectral purity radiation, making it ideal for continuous operation.

◆ Application

It is widely used in RoHS detection, X-ray fluorescence analysis, densitometric analysis, and other scientific research field and industrial sectors. Mainly used for X-ray fluorescence analysis, and the thickness of the X-ray coating thickness detection.

Technical Data

Electrical:

High Voltage Generator.....Constant Potential High-Voltage Generator
 Grounding.....monopolar
 Nominal X-ray Tube Voltage (IEC60613:2010).....30 kV
 Nominal Anode Input Power.....9W
 Focal Spot Size (EN12543).....200μm

Mechanical:

Overall Length.....101.6 mm
 Maximum Diameter.....35 mm
 High voltage cable.....5.1mm +/- 0.1mm
 Target:
 Anode Angle.....12.5 degrees
 Core Beam Angle.....22 degrees
 Material.....Rh, or Ag

Weight:

The weight of the product.....About 280g

Absolute Maximum and Minimum Ratings (At any time, these values must not be exceeded.)

Maximum X-ray Tube Voltage (IEC60613:2010).....30 kV
 Maximum X-ray Tube Current (IEC60613:2010).....0.5 mA
 Maximum Filament Current.....1.80 A
 Filament Voltage (At maximum filament current 1.80A).....2.5~3.1 V
 Inherent Filtration.....127μm
 Filament Frequency Limits.....DC 0 ~ 20 kHz
 Emission characteristics.....25KV0.3mA, If=1.58A
 Cooling Method.....Forced air @ 150 CFM

Operating Limits

Operating Limits:

Housing temperature.....0 ~ 40 °C

Shipping and Storage Limits:

Temperature.....-40~ 55 °C
 Humidity.....10 ~ 90 %
 Atmospheric Pressure.....50 ~ 106 kPa

Maintaining seasoning schedule

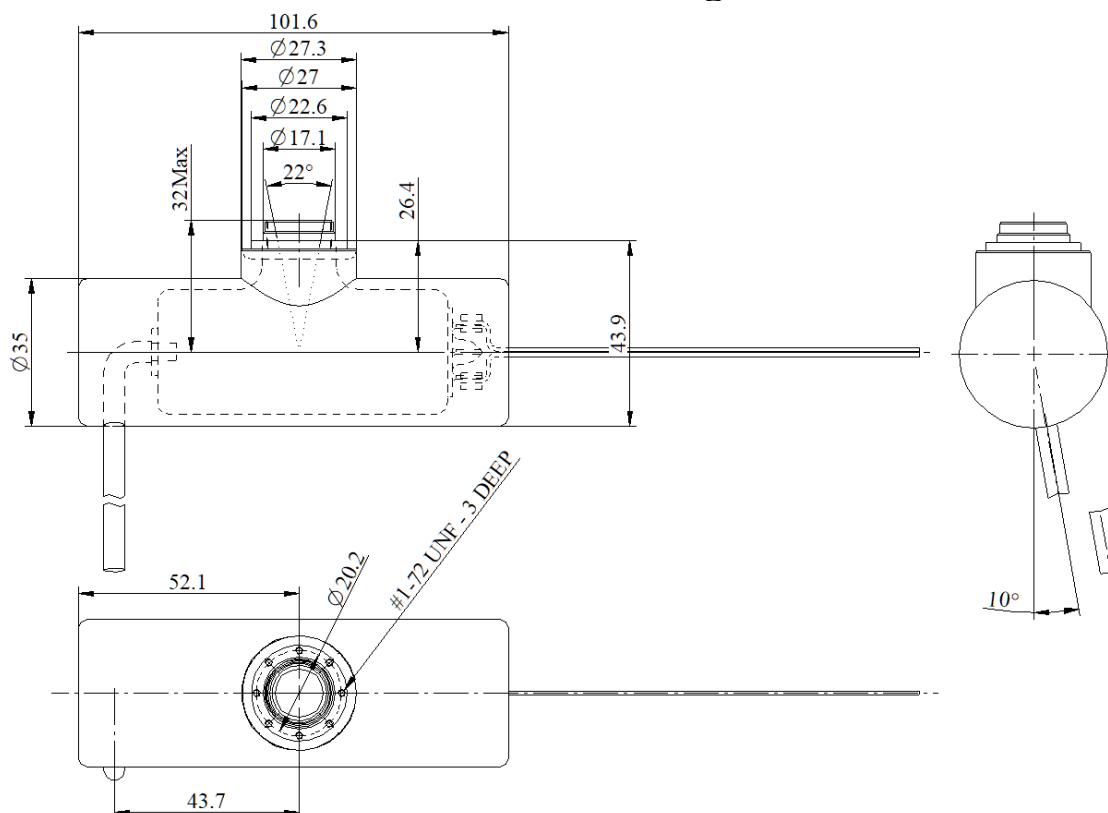
1. Seasoning schedule for the first used everyday

No.	Tube Voltage/kV	Tube current/mA	Time/min
1	25	0.2	10

2. Seasoning schedule for more than 1 week

No.	Tube Voltage/kV	Tube current/mA	Time/min
1	20	0.2	15
2	25	0.2	1
3	30	0.2	3

Outline Drawing



WARNING!!!

THIS HOUSING IS NOT RADIATION SHIELDED.

Cautions

X-ray housing will emit X-ray when it is energized with high voltage, Special knowledge should be required and cautions need to be taken when handling it.

1. Only a qualified specialist with X-Ray tube knowledge should assemble, maintain and remove the tube. In transportation and handling, please be very careful not to cause X ray tube components to be subjected to strong impact and vibration.
2. Tube insert connected to H.V. supply is a radiation source: be sure to take all necessary safety cautions.
3. The X-ray housing needs good heat radiation protection and reasonable use of fans for heat radiation.
4. When any abnormalities are found during operation, immediately switch off the power supply and contact the service engineer.
5. Tube insert connected to H.V. supply is a radiation source, and it is produced according to state-of-the-art technology: It is strictly forbidden to dismantle it privately.

Notes

- In the interest of complying with legal requirements concerning the environmental compatibility of our products (protection of natural resources, avoidance of waste) we endeavor to reuse components and to return them to the production cycle. We guarantee the functioning, quality and life of these components by taking extensive quality assurance measures, just as for factory-new components.
- The latest version of the instructions is issued on the official website, subject to change without notice.