

**INDUSTRIAL X-RAY TUBE
I-513**

X-ray Tube for Industrial Use

- ◆ The X-ray tube I-513, which has focus 0.8 is designed for non-destructive X-ray inspection.
- ◆ This tube can be used with Max. 160 kV constant potential circuit of center grounded.

General Data

Electrical:

Circuit:

High Voltage Generator	Constant potential high-voltage generator
Grounding	Center and X-ray port grounded
Nominal X-ray Tube Voltage	160 kV
Nominal Focal Spot Value	0.8 (JIS Z 4102:2005 7.4.1(b))
Nominal Anode Input Power (Continuously)	300W
Nominal Anode Input Power	
Continuous	300W
Intermittent (Maximum loading time and Duty: 10minutes / 50%)	400W

Mechanical:

Dimensions	See dimensional Outline
Overall Length	180 mm
Maximum Diameter	φ 59 mm
Target:	
Angle	25 degrees
Material	Tungsten
Inherent Filtration	Be 1.5 mm
X-ray Coverage (Angle):	
Tube Axis Direction	40 degrees
Normal to Tube Axis Direction	42 degrees
Weight (Approx.)	900 g
Cooling Method	Oil immersed (60°C Max.) and convection oil cooling.
Tube Holding	Holding the mounting flange with 6-M4 screws

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Absolute Maximum and Minimum Ratings

(At any time, these values must not be exceeded.)

Maximum X-ray Tube Voltage	160 kV
Between Anode (or Cathode) and Ground	80 kV
Minimum X-ray Tube Voltage	25 kV
Maximum X-ray Tube Current	7 mA
Maximum Filament Current	4.2 A
Filament Voltage (at Maximum Filament Current)	2.1 ~ 3.0 V
Filament Frequency Limit	DC or AC (Sine Wave) 0 ~ 20 kHz

Environmental Limits

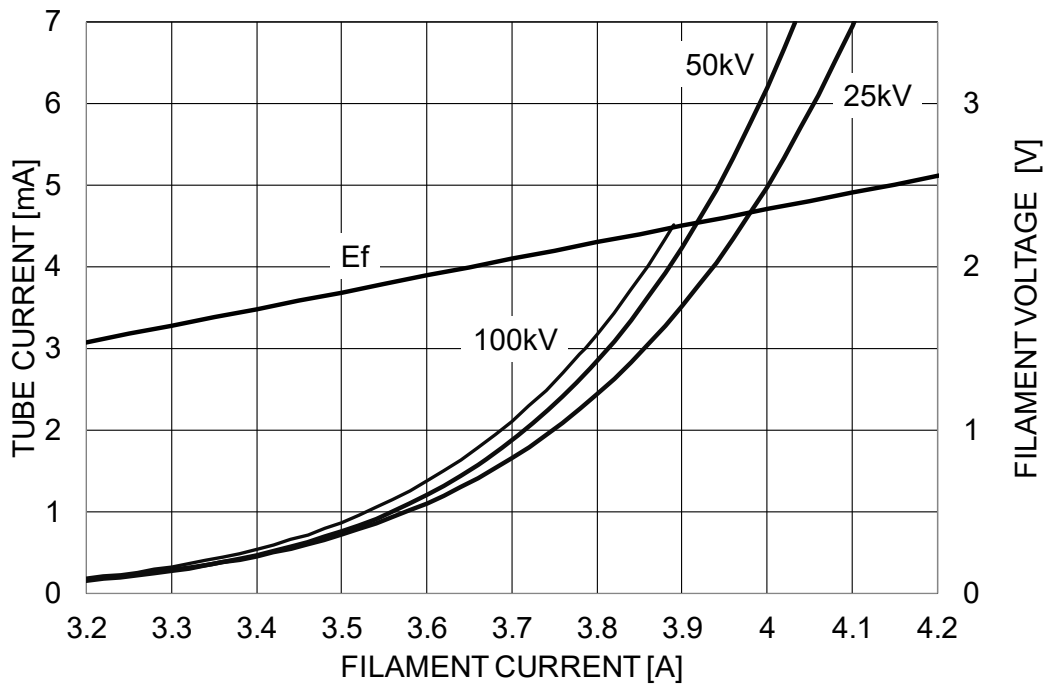
Operating Limits (in dielectric oil):

Oil Temperature	10 ~ 60°C
Oil pressure	70 ~ 140 kPa

Shipping and Storage Limits:

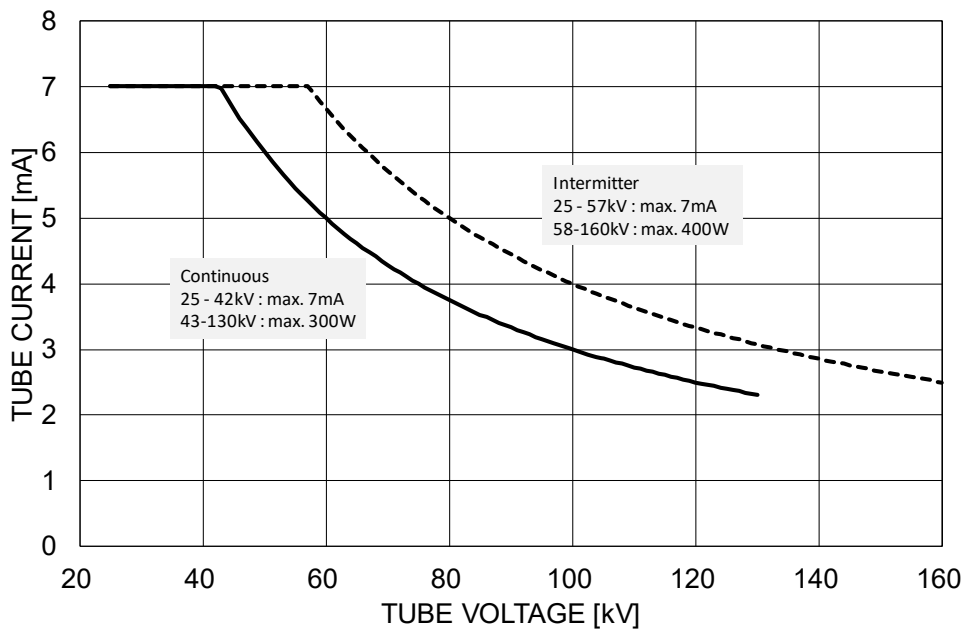
Temperature	-40 ~ 70 °C
Humidity	10 ~ 90 %
	(No condensation)
Atmospheric Pressure	50 ~ 106 kPa

Emission & Filament Characteristics



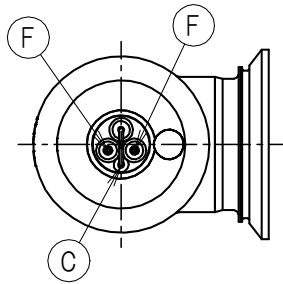
Note: This graph indicates typical characteristics.

Maximum Input



Dimensional Outline

Unit: mm



陰極端子 / CATHODE TERMINALS

F : フィラメント / FILAMENT (with Yellow Tube)
 C : カソード / CATHODE (with Yellow Tube)

