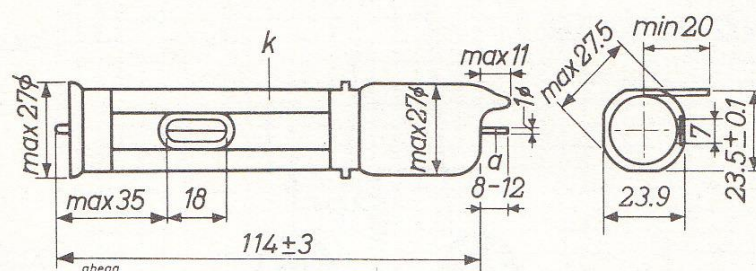


X-RAY COUNTER TUBE

Side window organic quenched X-ray counter tube

QUICK REFERENCE DATA	
X-Ray energy	2.5 to 40 keV; 0.3 to 5 Å
Window thickness	2 to 2.5 mg/cm ²
Operating voltage	1500 to 1850 V

DIMENSIONS AND CONNECTIONS



WINDOW

Thickness	=	2 to 2.5 mg/cm ²
Dimensions	=	7x18 mm ²
Material		mica

CATHODE

Effective length	=	67 mm
Material		28% Cr, 72% Fe

FILLING

Xenon, organic
Xenon pressure 25 cm Hg

CAPACITANCE

Anode to cathode	C_{ak}	=	2 pF
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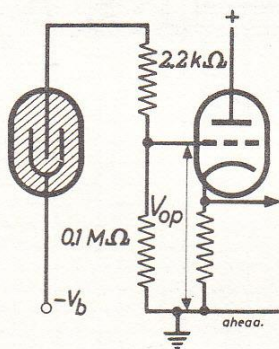
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OPERATING CHARACTERISTICS ($t_{amb} = 25\text{ }^{\circ}\text{C}$)

Operating voltage	$V_b = 1500$ to 1850 V ¹⁾
Geiger treshold	= min. 1900 V
Operating voltage for pulse amplitude (V_{op}) = 1 mV	$V_b = 1500$ to 1550 V ²⁾
Operating voltage for pulse amplitude (V_{op}) = 10 mV	$V_b = 1690$ to 1770 V ²⁾
Energy resolution	$\Delta P/P = \text{max. } 22\%$ ²⁾³⁾
Integrated background for pulses 50% of the pulse amplitude P (unshielded)	= 15 counts/min. ²⁾

MOUNTING

Low capacity mounting of the tube is required (shortest possible connection between anode and anode resistor and small capacity of anode to earth). Recommended circuit see fig.1.



REMARK

In order to prevent leakage the tube should be kept dry and well cleaned.

1) To obtain max. tube life V_b should be kept as low as possible.

2) For Mn $K\alpha$ radiation (5.9 keV)

3) P = average pulse height, ΔP = width of the pulse height distribution at half of the max. value.

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