

Specification MOS(A)/CV1881 Issue 4 Dated 24. 6. 55 To be read in conjunction with K1001	<u>SECURITY</u>	
	<u>Specification</u>	<u>Valve</u>
	UNCLASSIFIED	UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Argon-filled Noise Tube CATHODE - Directly-heated ENVELOPE - Glass PROTOTYPE - Vx4144	<u>MARKING</u>	
	See K1001/4	
	<u>BASE & CONNECTIONS</u>	
	See Drawing on Page 3	
	<u>DIMENSIONS</u>	
	See Drawing on Page 3	
<u>RATING</u>		<u>Note</u>
Filament Voltage (V)	6.3	
Filament Current (A)	0.4	
Striking Voltage on DC (V)	1000	A
Normal Operating Voltage (Ia=180mA) (V)	60	
Max. Operating Current (mA)	250	
Nom. Continuous Operating Current (mA)	180	B
Nom. Noise Power Available (Ia=180mA) (db)	15.5	C
Nom. Noise Power Output Change with Current (db/mA)	-0.005	
Nom. Useful Working Frequency Range (Mc/s)	3000 to 12000	
Nom. Gas Pressure (mm)	30	
		<u>MOUNTING POSITION</u>
		Any

NOTES

- A. With earthed metal sheath.
- B. The discharge current should be adjusted for optimum matching conditions but must not fall below 160 mA if instability is to be avoided.
- C. Relative to thermal noise at 17°C

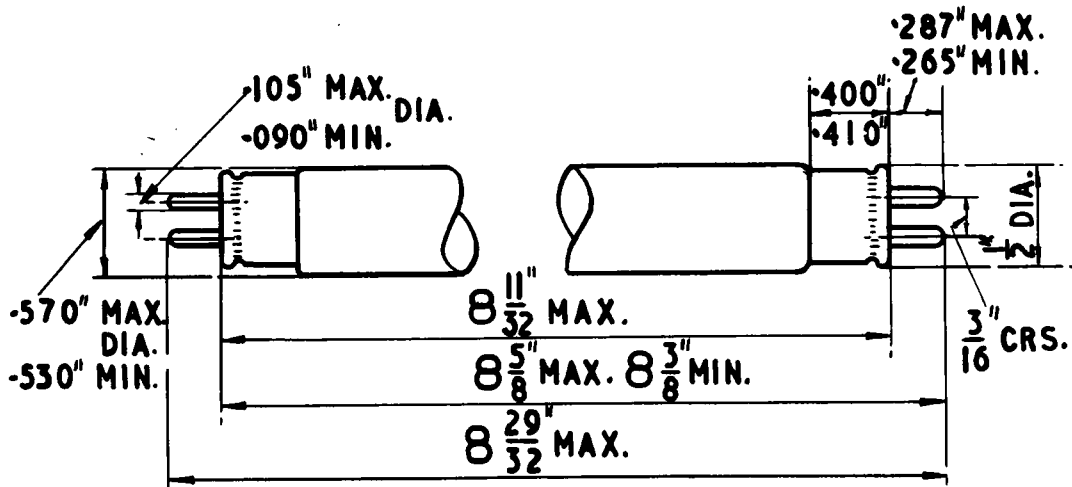
To be performed in addition to those applicable in K1001

Test	Test Conditions	AQL %	Insp. Level	Symbol	Limits		Units
					Min.	Max.	
a	Filament Current Vf = 6.3V Note 1	6.5	I	If	0.35	0.45	A
b	VSWR Vf = 6.3V f = 9375 ± 5Mc/s Note 2	6.5	I		0.95	-	-
c	Insertion Loss Vf = 0 f = 9375 ± 5Mc/s Note 3	6.5	I		-	0.25	db
d	Torque Applied to each cap	See K1001/12.3	I		-	1.5	in-lb

NOTES

1. The valve shall be pre-heated for 15 secs before performing the test. The test shall be applied to each filament in turn.
2. The valve shall be inserted into an approved 15° E-plane mount on a No. WG16 waveguide system and terminated in a matched load. The empty mount shall be screw-tuned to give a VSWR of at least 0.98 : 1. The valve shall be operated at a discharge current of 180 ± 5mA. The power shall be derived from a matched source through an attenuation of at least 6 db.
3. The valve shall be inserted into an approved 15° E-plane mount on a No. WG16 waveguide system and terminated with a matched detector.
Using an empty mount and not more than 1.0 mW RF derived from a matched source through an attenuation of at least 6 db, the detector reading shall be noted. The valve shall remain inert.

9" NOISE SOURCE TUBE.
OUTLINE DIMENSIONS.



NOTE:- 1. THE PINS SHOULD ENTER A GAUGE CONSISTING OF TWO HOLES $\cdot 110''$ DIA. AT $\cdot 1875''$ CENTRES.

NOTE :-2. VALVE TO PASS THROUGH A TUBULAR GAUGE OF $0.610''$ INT. DIA. AND LENGTH 8 INCHES.

TEST MOUNT.

