

MINISTRY OF SUPPLY - LRD(A)/TRE

Specification MOS(A)/CV486 Issue 2 Dated 16.10.52 To be read in conjunction with K1001 excluding clauses 5.2 and 5.8	<u>SECURITY</u>	
	<u>Specification</u> UNCLASSIFIED	<u>Valve</u> UNCLASSIFIED

→ Indicates a change

<u>TYPE OF VALVE</u> - Enclosed Triggered Spark Gap			<u>MARKING</u>		
<u>CATHODE</u> - Cold			See K1001/4		
<u>ENVELOPE</u> - Glass - unmetallised, Protected (See Note B)					
<u>PROTOTYPE</u> - VX6112			<u>BASE</u>		
<u>RATING</u>			B15A3		
		Note			
Trigger Voltage	(kV)	4.5	A		
Min. Working Voltage	(kV)	12.0	A	<u>CONNECTIONS</u>	
Peak Output Power (approx.)	(kW)	525	A	Pin	Electrode
				1	Trigger
				2	Anode
				3	No connection
				4 to 8	Omitted
				TC	Cathode
				<u>TOP CAP</u>	
				See K1001/A1/D5.11	
				<u>DIMENSIONS</u>	
				See Drawing, Page 3.	

NOTES

A. Under the following conditions:-

Main gap Voltage = -13.5 kV  
 Tp = 0.5 usec  
 Prf = 1300 pps

Constant current charging is used and the lead and line are matched.

B. The valve shall be provided with adequate splinter proofing.

TESTS

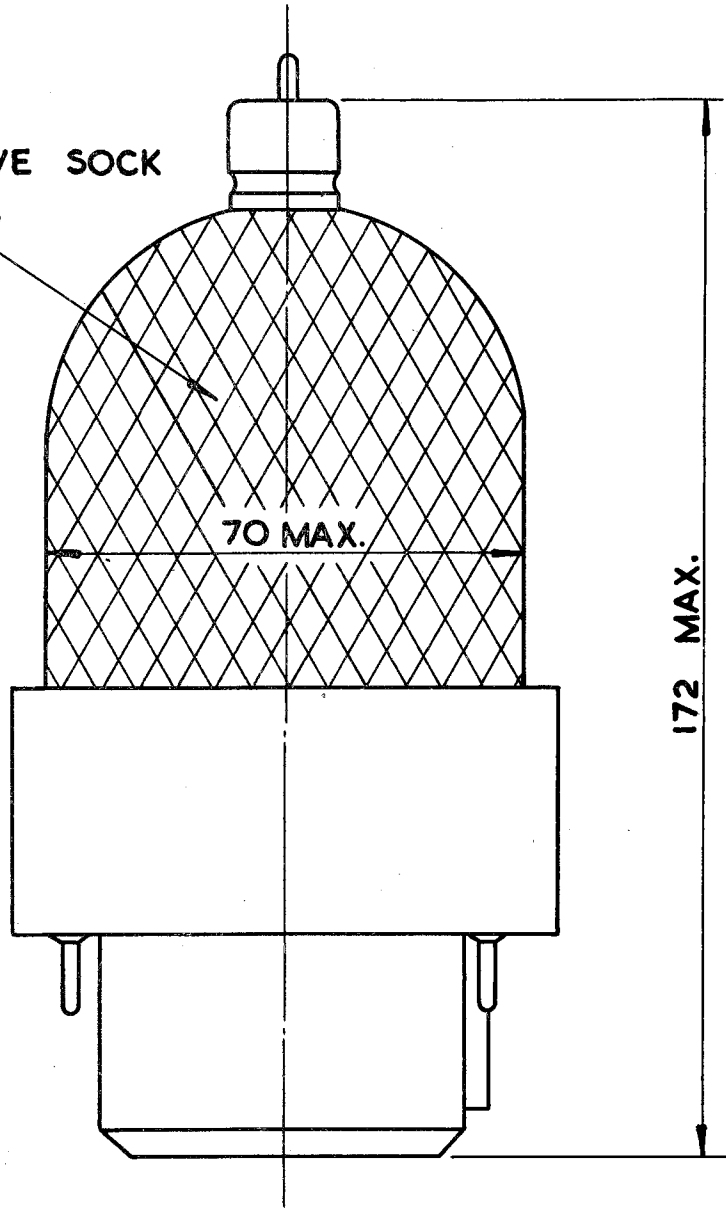
To be performed in addition to those applicable in K1001

Test Conditions	Test	Limits		No. Tested	Note
		Min.	Max.		
For the purpose of the following tests, all electrode potentials shall be measured with respect to the anode, which encloses the trigger rod.					
a Cathode Voltage = -7.5kV max. Trigger voltage shall be derived from an approved pulse generator supplying a positive pulse of $11.0 \pm 1$ kV on open-circuit, at a repetition frequency of 1300 c/s and with max. build-up time to max. voltage of 0.5 to 0.75 $\mu$ sec. The line shall be of 80 ohms impedance and designed for a pulse length of 0.5 $\mu$ sec, and shall be charged through a choke of 180H. The external load shall be matched to 70 ohms.	A spark shall occur which also delivers power to the load.			100%	1
b Cathode Voltage = -13.5kV Other conditions as in Test (a).	Trigger breakdown (kV) voltage		6.5	100%	
c Cathode Voltage = -12kV Other conditions as in Test (a).	1. Jitter ( $\mu$ sec) (Total lateral movement of the trailing edge of the monitored pulse)	-	0.2	100%	
	2. Fluctuations of amplitude	-	$\pm 10\%$	100%	
d Cathode Voltage = -15.0kV Other conditions as in Test (a).	1. Jitter ( $\mu$ sec) (Total lateral movement of the trailing edge of the monitored pulse)	-	0.2		
	2. Fluctuation of amplitude	-	$\pm 10\%$		
e With the set-up as in Test (a) the cathode voltage shall be increased until unstable operation occurs.	Negative cathode (kV) voltage at which irregular breakdown (i.e. breakdown not correlated with the trigger pulse) occurs at a rate of between 1 and 6 times per sec.	16	-	100% or S	

NOTE

1. Test (a) must be performed first in the test schedule.

PROTECTIVE SOCK  
FOR BULB



DIMENSIONS IN M/M