

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV570/Issue 2. Dated 6. 2. 1953. To be read in conjunction with K1001.	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

→ Indicates a change

<u>TYPE OF VALVE:</u> Triode, water-cooled. <u>CATHODE:</u> Directly heated, thoriated tungsten. <u>ENVELOPE:</u> Metal-glass. <u>PROTOTYPE:</u> 3Q/195B		<u>MARKING</u>	
		See K1001/4. Additional Marking : Serial No.	
<u>RATING</u>		Note	<u>DIMENSIONS AND BASE</u>
Filament Voltage (V)	10		See Drawing Page 3.
Filament Current max, (A)	36		
Max. Anode Voltage (kV)	10		
Max. Anode Current (A)	2		
Max. Anode Dissipation (kW)	5		
Amplification Factor	26		
Anode Impedance (ohms)	4500		
Min. Rate of Water Flow (gals/min)	3		<u>PACKAGING</u>
			See K1005.
<u>CAPACITANCES (pF)</u> (Nominal values)			
Cag	12		
Cae	1.5		
Cge	11.5		

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions				Test	Limits		No. Tested	Note
	Vf (V)	Vg1 (V)	Va (kV)	Ia (A)		Min.	Max.		
a	10	-	-	-	Filament Current (A)	28	36	100%	1,2
b	10	Adjust	10	0.5	Reverse grid current at conclusion of 10 mins. test. (μA)	-	50	100%	3
c	10	3000	3	-	Peak Emission (A)	7.5		100%	
d	10	-100	Record Va1	0.8	Amplification Factor				
	10	0	Record Va2	0.8	$\mu = \frac{Va1 - Va2}{100 V}$	24.	34	100%	
e	10	0	Adjust to Va2 + 1 kV	Record Ia1	Anode Impedance $Ra = \frac{1000 V}{Ia1 - 0.8A}$ (Ω)	3300	5700	100%	
f	10	Adjust	10	0.02	Cut-off Vg1 (V)	-	-525	100%	

NOTES

1. For all the above tests the valve shall be mounted in a suitable water jacket and the water flow adjusted to 3 gallons per minute.
2. For tests to clauses 'a', 'b', 'd', 'e' and 'f', the filament shall be heated by 50 c/s current and the common return of both anode and grid circuits shall be to the centre point of the filament transformer secondary.
3. The value of reverse grid current in test 'b' shall not exceed the specified value and shall not be rising at the conclusion of a ten minute test.

