

ADMIRALTY SURFACE WEAPONS ESTABLISHMENT

Specification AD/CV5080 Issue 1 reprint "A" dated 29.3.63 To be read in conjunction with K1001 and BS448. Letter symbols as in BS1409	<div style="text-align: center;"><u>SECURITY</u></div> <table border="1"> <tr> <td><u>Specification</u> Unclassified</td><td><u>Valve</u> Unclassified</td></tr> </table>	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified
<u>Specification</u> Unclassified	<u>Valve</u> Unclassified		

→ Indicates a change

<u>TYPE OF VALVE:</u> HF Pentode with limited microphony characteristics				<u>MARKING</u> See K1001/4		
<u>CATHODE:</u> Indirectly heated				<u>BASE</u> See K1001/A.1/D.1 See BS448/B8-0 M dimension (1) applies		
<u>ENVELOPE:</u> Glass, metallised						
<u>PROTOTYPE:</u> EF.37A						
<u>RATINGS</u> All limiting values are absolute				<u>CONNECTIONS</u>		
				Pin		Electrodes
				1		M
				2		h
				3		a
				4		g2
				5		g3
				6		NC
				7		h
				8		k
				TC		g1
				<u>TOP CAP</u> See BS.448/CT1		
				<u>DIMENSIONS</u> See K1001/A.1/D.1		
				Dimensions (mm)		Min. Max.
				A (Overall length)		95 100
				B (Diameter)		- 32
				L (Seated height)		- 30
<u>NOTE</u> A. Measured with $V_a = 250V$ ; $V_{g2} = 100V$ ; $V_{g1} = -2.0V$						

## TESTS

To be performed in addition to those applicable in K1001. Tests are to be performed in the specified order unless otherwise agreed with the Inspecting Authority.

Test Conditions - unless otherwise stated								
$V_a$ (V) 250 $V_{g1}$ (V) -1.4 $V_{g2}$ (V) 100 $V_{g3}$ (V) 0 $V_a$ (V) 6.3								
K1001 Ref.	Test	Test Conditions	AQL %	Insp. Level	Symbol	Limits		Units
						Min.	Max.	
	<u>Group "A"</u> Omitted							
	<u>Group "B"</u> Heater Current Anode Current (1) Anode Current (2) Screen Current Control-grid Cut-off volts	$V_{g1} = -3.5V$ $V_{g1} = 0V$ $V_{g1} = -2.0V$ $I_a = 50 \mu A$ (Note 2)		100% 100% 100% 100% 100%	$I_h$ $I_a$ $I_a$ $I_{g2}$ $-V_{g1}$	180 0.5 5.7 0.3 -	220 1.5 9.3 1.3 7.5	mA mA mA mA V
	<u>Group "C"</u> Reverse Grid Current Emission  Microphony  Hum (Grid)  Hum (Cathode)  Hiss	$V_{g1} = -2.0$ (Note 1) $V_a = V_{g1} = V_{g2} =$ $V_{g3} = 30V$ a.c.  $V_{g2} = 75V$ $V_a = 100V$ (Notes 3, 5, 6, 7)  $V_{g2} = 75V$ $V_a = 100V$ (Notes 4, 5, 7)  $V_{g2} = 75V$ $V_a = 100V$ (Notes, 4, 5, 7)  $V_{g2} = 75V$ $V_a = 100V$ (Notes 5, 6, 7)		100% 100%  2.5 2.5 2.5 2.5	$-I_{g1}$ $I_e$  I I I I	- 32  - - - -	0.7 -  300 12.5 75.0 12.5	$\mu A$ mA  <del><math>\mu V</math></del> <i>Amplitude</i> $\mu A$ $\mu A$ $\mu A$
	<u>Group "D"</u> Capacitances	Measured on a 1 Mc/s bridge with valve mounted in a fully screened socket		6 per week and T.A.	$C_{a-g1}$ $C_{a-e}$ $C_{g1-e}$	- - -	0.01 8.5 5.5	pF pF pF

NOTES

1. Carried out with 0.1 Megohm in the control grid circuit.
2. Carried out with 1 Megohm in the anode circuit.
3. Valves to be lightly tapped with a small rubber headed hammer, the highest reading obtained being the recorded value. The number of valves tested to be in accordance with Inspection Level I and AQL = 2.5%.
4. The valve shall be tested using a low-loss socket. The hum tests shall be conducted by alternately earthing pins 2 and 7. ←
5. The valves shall be tested in amplifier described in Appendix "A" to Specification for CV2901. The limits given refer to the equivalent grid 1 r.m.s. voltage. Copies of the Appendix may be obtained on application to the Specifying Authorities.
6. Microphony and hiss tests may be conducted with d.c. heating of the cathode.
7. The microphony, hum and hiss tests are to be carried out with  $V_a = 100V$ ;  $V_{g2} = 75V$  and  $R_a = 100k\Omega$ ;  $R_{g1} = 470k\Omega$ ;  $R_{g2} = 680k\Omega$ ;  $R_k = 1.2k\Omega$ . ←

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION AD/CV 5080 ISSUE 1. (REPRINT. 'A'), DATED 29.3.63

AMENDMENT No. 1.

Page 2 Group C. Microphony Test.

In the column headed 'Units' delete ' $\mu$ A' and  
substitute ' $\mu$ V'

T.V.C. for A.S.W.E.

January, 1964.

NP.213537

*hth*  
26-1-64