

ADMIRALTY SIGNAL ESTABLISHMENT

(CV61 BLUE B)

Specification AD/CV334/Issue 2 Dated 8.10.46 To be read in conjunction with K1001, ignoring clauses :- 5.2, 5.8.	<u>SECURITY</u>	
	<u>Specification</u> Restricted	<u>Valve</u> Unclassified

<u>TYPE OF VALVE:-</u> Midget Pentode.	<u>MARKING</u> See K1001/4
<u>CATHODE:-</u> Directly heated, oxide coated tungsten.	
<u>ENVELOPE:-</u> Clear Glass.	
<u>RATING</u>	<u>BASE AND DIMENSIONS</u>
Filament Voltage (V) 1.4	See Fig. 3
Filament Current (A) 0.12	<u>PACKING</u> See K1001/7

TESTS

To be performed, in addition to those applicable in K1001,
six weeks after manufacture.

	Test Conditions		Test	Limits		No. Tested	Note
	Vf (V)			Min.	Max.		
a	0	Vg1, with respect to all other electrodes = 135 V	Insulation G1 to rest (M Ω)	100	-	100%	
b	0	Va, with respect to all other electrodes = 135 V	Insulation A to rest (M Ω)	100	-	100%	
c	1.4		If (mA)	-	130	100%	
d	1.4	Test valve in circuit shown in Fig. 1 with -1.8 V grid bias.	<u>Input AC Resistance Test.</u> Note difference between Ia with 1000 M Ω resistor in, and out of, grid lead (μ A)	-	10	100%	1

Contd. overleaf

TESTS (Contd.)

	Test Conditions		Test	Limits		No. Tested	Note
	Vf (V)			Min.	Max.		
e	1.4	Repeat test 'd' with -2.2 V grid bias.	Difference in Ia as in 'd' (μ A)	-	10	100%	1
f	1.4	Test valve in circuit shown in Fig. 2.	Noise Test. Note mean rectified current after C2 (mV)	-	0.8	100%	2,3

NOTES

- The 1,000 M Ω resistor, shown in Fig. 1, should be of the special hydrogen type, and the switch must have a high resistance.
- C1 and C2 are such that the frequency response of the circuit is substantially as follows :-

With 4 mV Input					
c/s	db	c/s	db	c/s	db
0.6	-10.0	1.0	-6.0	10	-0.6
0.7	-9.0	2.0	-2.4	20	-3.0
0.8	-7.7	3.0	-1.0	30	-5.0
0.9	-7.0	4.0	-0.4	40	-7.0
Plot as a smooth curve on "linear by 3 cycle" log paper, with db on linear scale.		5.0	-0.2	50	-8.5
		6.0	-0.0	60	-10.0
		7.0	-0.2	100	-14.0
		9.0	-0.4		

- The straight amplifier following Fig. 2, must have an input impedance of not less than 5 M Ω and a flat response over the range 0.5 c/s to 5 kc/s.

