

ADMIRALTY SIGNAL ESTABLISHMENT

Specification AD/CV1194/Issue 3. Dated 2.12.46. To be read in conjunction with K1001.	<u>SECURITY</u>	
	<u>Specn.</u> Restricted	<u>Valve</u> Unclassified

→ Indicates a change

<u>TYPE OF VALVE:-</u> Triode Hexode Frequency Changer.		<u>MARKING</u>	
<u>CATHODE:-</u>	Indirectly Heated.	See K1001/4.	
<u>ENVELOPE:-</u>	Glass, Metallised or Plain, Carbonised.		
<u>PROTOTYPE:-</u>	X41.		
<u>RATING</u>		Note	<u>BASE</u>
			See K1001/AIV/D5.3
			Pin Electrode
Heater Voltage (V)	4.0	A	1 Oscillator Anode
Heater Current (A)	1.2		2 Oscillator and Mixer Grids
Max. Anode Voltage (V)	250		3 Screen Grid
Max. Screen Voltage (V)	80		4 Heater
Max. Oscillator Anode Voltage (V)	150		5 Heater
Max. Oscillator Grid Peak Swing (V)	12		6 Cathode
Conversion Conductance (average) ($\mu\text{A/V}$)	640		7 Anode
Conversion Impedance (approx.) ($\text{M}\Omega$)	0.75		TC Control Grid
Total Cathode Current (average) (mA)	7.6		
<u>CAPACITANCES (pF approx.)</u>			
Cag	0.046		See K1001/AI/D5.1
Ca-all	17.0		
Cg1-all	7.7		<u>DIMENSIONS</u>
Cgao-all	6.0	B	See K1001/AI/D1.
Cao-all	15.5		Dimension Min. Max.
Cgo-so	3.56		A mm - 135
Cgo-g1	0.26		B mm - 45
			<u>PACKING</u>
			See K1001/7.
<u>NOTES</u>			
A. $V_g = -1.5\text{V}$.			
B. For metallised valve			

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions					Test	Limits		No. Tested	Notes
	Vh (V)	Va (V)	Vg2 (V)	Vg1 (V)	Vao (V)		Min.	Max.		
a	4.0	-	-	-	-	Ih (A)	1.05	1.25	1% (20)	
b	4.0	250	70	-1.5	100	Total Cathode Current (mA)	5.4	11.6	100%	1
c	4.0	250	70	-1.5	100	Conversion Conductance ($\mu\text{A}/\text{V}$)	320	800	100%	1.2
d	4.0	250	70	-20	0	Ia tail (mA)	0.05	0.3	100%	1
e	4.0	250	70	-3	100	Reverse Ig (μA)	-	0.8	100%	1
f	H.F. Oscillation Test in approved circuit.					Oscillatory Test	Triode must oscillate satisfactorily.		100%	

NOTES

- In these tests Vao = 10 volts A.C. peak, applied through 0.1 M Ω .
- 1 V A.C. peak superimposed on Vg1
 - In phase with Vao.
 - 180° out of phase with Vao.
 gc = change in Ia noted.