

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
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→ Indicates a change

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

NOTESA. $V_g = -1.5V$.

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 ($\mu A/V$)	320	800	100%	1.2
d	4.0	250	70	-20	0	Ia tail (mA)	0.03	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

1. In these tests Vao = 10 volts A.C. peak, applied through 0.1 M Ω .
2. 1 V A.C. peak superimposed on Vg1
 - (i) In phase with Vao.
 - (ii) 180° out of phase with Vao.
 gc = change in Ia noted.