

ADMIRALTY SIGNAL ESTABLISHMENT

Specification AD/CV1193/Issue 5. Dated 31.10.46. To be read in conjunction with K1001.	<u>SECURITY</u>	
	<u>Specification</u> Restricted	<u>Valve</u> Unclassified

<u>TYPE OF VALVE:-</u> Triode-hexode frequency changer.		<u>MARKING</u> See K1001/4.	
<u>CATHODE:-</u> Indirectly heated.			
<u>ENVELOPE:-</u> Glass, unmetallised.			
<u>PROTOTYPE:-</u> X65.			
<u>RATING</u>		<u>BASE</u> IO See K1001/AIV/D2.	
		Note	
Heater Voltage (DC or AC) (V)	6.3		Pin
Heater Current (A)	0.32		Electrode
Max. Anode Voltage (V)	250		1 No connection
Max. Screen Voltage (V)	100		2 Heater
Oscillator Anode Voltage (V)	250	A	3 Anode
Oscillator Grid Peak Voltage (V)	10		4 Screen Grids G2 and G4
Min. Control Grid Voltage (V)	-3		5 Oscillator and Mixer Grid G3
Average Total Cathode Current (mA)	11		6 Oscillator Anode
Average Conversion Conductance (at Vg1 = -3) (umhos)	225	B	7 Heater
Average Conversion Conductance (at Vg1 = -35) (umhos)	0.2	B	8 Cathode
Conversion Impedance (M Ω)	2.5		TC Control Grid, G1
Range of Vh for satisfactory operation (V)	5.7 - 7.5		<u>TOP GAP</u> See K1001/AI/D5.2.
<u>CAPACITANCES (pF.)</u>			<u>DIMENSIONS</u> See K1001/AI/D1.
Cg1-all	3.5	C	Dimension
Cg1-a	0.12	C	Min.
Ca-all	5.5	C	Max.
Cgo-ao	2.0	C	A mm
Cao-all	5.5	C	-
Cgo-all	10.4	C	114
Cgo-g1	0.2	C	B mm
			-
			41.5
			<u>PACKING</u> See K1001/7.

NOTES

- A. Vao applied through 30,000 ohms.
- B. Vgo = 10 V peak.
- C. Measured with external valve shield.

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	6.3	-	-	-	-	Ih (A)	0.27	0.37	100% or S	
b	6.3	250	100	-3	100	Total Cathode return current (mA)	7.7	14.5	100%	1
c	6.3	250	100	-3	100	Gc (µA/V)	146	304	100%	1 2
d	6.3	250	100	-20	0	Ia tail (µA)	3	300	100%	1
e	6.3	250	100	-3	100	Reverse Ig (µA)	-	1.0	100%	1
f	6.0	-	-	-	-	H.F. Oscillation Positive Ig (µA)	68	-	5%	3
Valve to be tested in the gear described in Specification D.C.D. W.T. 1182 for the valve CV1099.										

NOTES

1. Vgo = 10 V peak AC applied through 50,000 ohms.
2. 1 V peak AC applied to g1; test to be performed in an approved circuit.
3. If necessary an alternative test may be applied, with agreed positive grid current limits, by arrangement with the issuing authorities.