

Specification MAP/CV37/Issue 3 Dated 14.1.49 To be read in conjunction with K1001 ignoring clauses:- 5.2.2, 5.8, 7.2.	<u>SECURITY</u>	
	<u>Specification</u> RESTRICTED	<u>Valve</u> UNCLASSIFIED

→ Indicates a change

<u>TYPE OF VALVE</u> - Velocity Modulated Oscillator		<u>MARKING</u> See K1001/4.	
<u>CATHODE</u> - Indirectly heated		<u>BASE</u> I.O.	
<u>ENVELOPE</u> - Glass - unmetallised		<u>PACKING</u> See K1005	
<u>RATING</u>		Pin	Electrode
Heater Voltage (V)	4.0	1	Grid
Heater Current (A)	1.45	2	Heater
Minimum Oscillation Frequency (Mc/s)	3226	3	No connection
Maximum Oscillation Frequency (Mc/s)	3370	4	No connection
Maximum Resonator Dissipation (W)	10.0	5	No connection
		6	No connection
		7	Heater
		8	Cathode
		T.C.	Reflector
<u>AVERAGE WORKING CONDITIONS</u>		<u>TOP CAP</u> See K1001/A1/D5.2	
Resonator Voltage (kV)	1.2	<u>DIMENSIONS</u> See page 3	
Reflector Voltage (V)	-360		
Grid Voltage (V)	0		
Mean Resonator Dissipation (W)	10.0		
Minimum Power Output (mW)	100		

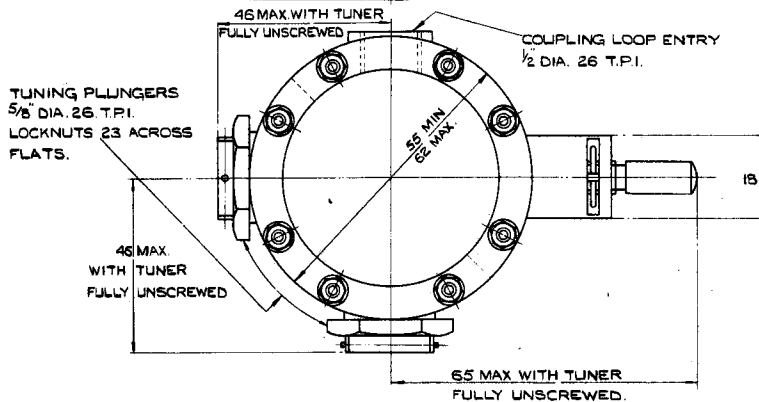
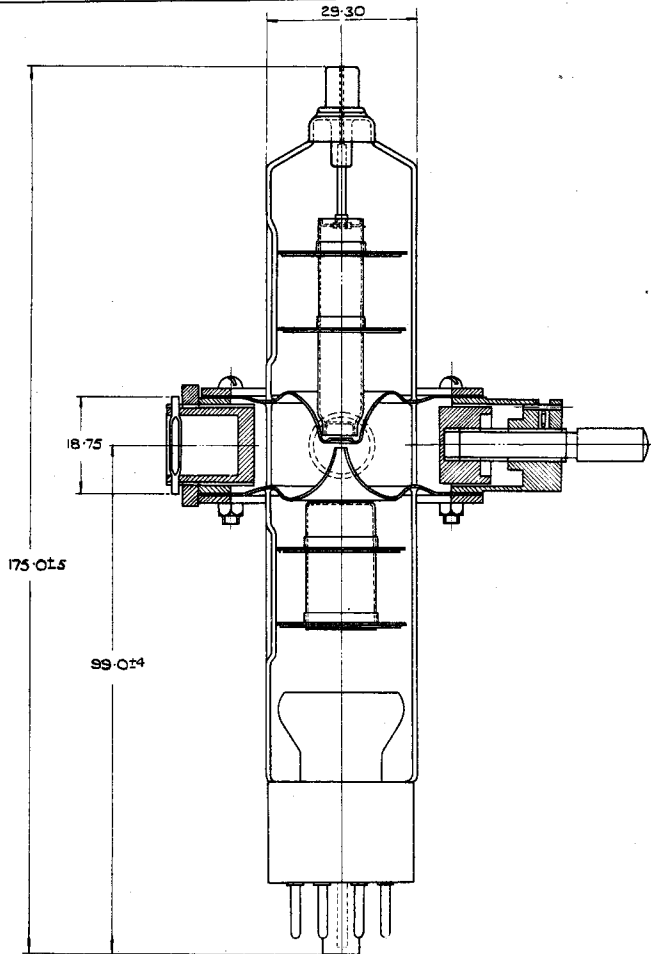
NOTES

- A - The valve shall be processed to withstand a maximum anode voltage of not less than 3.0 KV. positive with respect to grid and reflector strapped.
- B - The terms anode and resonator are synonymous.
- C - In operation the temperature of the resonator must not exceed 100°C. and if the mounting gives insufficient cooling by conduction then artificial cooling must be used.
- D - The valve has been designed to operate at zero grid voltage.
- E - Variation of resonator and reflector voltages to cover the ranges shown in test clause (c) should be provided in equipments.

This valve type is obsolete and this specification is for record purposes only.

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No. Tested	Notes
						Min.	Max.		
	Vf	Vg	Va	Vr					
a	See K1001/5.3				H.C. Leakage Current ( $\mu\text{A}$ )	-	62.5	100%	
b	4.0	0	0	0	$I_h$ (A)	1.3	1.6	100%	
c	4.0	0	varied	varied	1. Range over which oscillations can be obtained (Mc/s)	3226 to 3370		100%	
					2. $V_a$ over range (kV)	1.0	1.4	100%	
					3. $V_r$ over range (V)	-300	-420	100%	
d	4.0	0	varied	varied	1. Power output at 3,300 Mc/s (mW)	200	-	100%	2
					2. Power output over full range of fine tuner, $V_a$ and $V_r$ being left unchanged (mW)	100	-	100%	
					3. Fine tuner range (Mc/s)	65	-	1% (1)	
e	3.8	0	varied	varied	Power output at 3,300 Mc/s. (mW)	100	-	100%	2
f	4.0	0	varied	varied	Frequency drift to be measured from the time of application of electrode voltages to the cold tube to the time when a steady state has been reached.				2
					1. Positive drift (Mc/s)	-	0	1% (1)	
					2. Negative drift (Mc/s)	-	5.0	1% (1)	
<u>NOTES</u>									
1 - The symbol $V_r$ is used to designate the reflector voltage. The symbol $V_a$ is used to designate the resonator voltage.									
2 - For test clause (d), (e) and (f), $V_a$ and $V_r$ must be within the limits given in test clause (c.2) and (c.3).									



NOTE:- WHERE A DIMENSION IS GIVEN WITH TUNER FULLY UNSCREWED THIS DOES NOT INDICATE THAT TUNER IS UNSCREWED TO THE LIMIT OF THE THREAD BUT THAT FURTHER UNSCREWING WILL NOT AFFECT THE TUNING

ALL DIMENSIONS IN MILLIMETRES.