

Specification MAP/CV70/Issue 4 Dated 15.1.49 To be read in conjunction with K1001 ignoring clauses:- 5.2, 5.3.	<table border="1"> <tr> <th colspan="2">SECURITY</th></tr> <tr> <td>Specification</td><td>Valve</td></tr> <tr> <td><del>RESTRICTED</del></td><td>UNCLASSIFIED</td></tr> </table>	SECURITY		Specification	Valve	<del>RESTRICTED</del>	UNCLASSIFIED
SECURITY							
Specification	Valve						
<del>RESTRICTED</del>	UNCLASSIFIED						

→ Indicates a change

<u>TYPE OF VALVE</u>	Transmitting Klystron	<u>MARKING</u> See K1001/4	
<u>CATHODE</u>	Indirectly Heated	<u>PACKING</u> See K1005	
<u>ENVELOPE</u>	Metal/Glass		
<u>PROTOTYPE</u>	9PK2		
<u>RATING</u>		<u>BASE</u> I.O.	
Filament Voltage	(V) 4.0	Pin	Electrode
Filament Current	(A) 2.5		
Max. Peak Anode Voltage	(kV) 14.0	1	No Connection
Max. Collector Dissipation	(W) 30.0	2	Heater
		3	No connection
		4	No connection
		5	No connection
		6	No connection
		7	Heater and cathode
		8	No connection
		T.C.	Collector
		<u>TOP CAP</u> See K1001/AI/D5.2	
		<u>DIMENSIONS</u> See drawing on page 3	

NOTES

- A - The terms anode and resonator are synonymous.
- B - The valve is now obsolete. When the type was manufactured however the type number was followed by a letter indicating the frequency to which the valve was set up, as follows:-
- A indicated valve was set up to 3240 Mc/s
  - B indicated valve was set up to 3210 Mc/s
  - C indicated valve was set up to 3180 Mc/s
  - D indicated valve was set up to 3150 Mc/s

This valve type is obsolete and this specification is for record purposes only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			Tests	Limits		No. Tested	Notes
	V <sub>h</sub>	V <sub>c</sub> (kV)	V <sub>r</sub> (kV)		Min.	Max.		
a	4.0	0	0	I <sub>h</sub> (A)	2.25	2.75	100%	
b(1)	4.0	12.0	12.0	Collector + resonator current say I <sub>a</sub> . Value to be noted (mA)	1.0	1.3	100%	1
b(2)	4.0	12.0	12.0	Note value of collector current say I <sub>b</sub> . (mA)	-	-	100%	
c	From measurements made in test (b)			Value of I <sub>b</sub> /I <sub>a</sub>	0.93 ± 4%		100%	1
d	4.0	12.0	12.0	Peak power output (kW)	1.5	-	100%	2,3

NOTES

- 1 - In tests (b) and (c) above the anode voltage shall be pulsed with a pulse length of 3.0  $\mu$ sec. and p.r.f. 460 per sec. These tests shall be performed either without the resonators or with detuned resonators because the collector current diminishes when the valve goes into oscillation. All the figures refer to non-oscillating conditions.
- 2 - In test (d) the anode voltage shall be pulsed in the same manner as in tests (b) and (c) and the resonators shall be tuned to the frequency required according to the marking.
- 3 - Comparative measurements of output should be made by means of a lamp. For this measurement the size of the coupling loop should be such that maximum output is obtained with the loop orientated to a position such that its plane is at an angle of 10° to a plane containing the principal axis of the resonator and the centre line of the coupling loop entry.

