VALVE ELECTRONIC

GENERAL POST OFFICE: E-IN-C (S)

CV2189

Specification: GPO/CV2189/Issue 2 Dated: JAN. 1954. To be read in conjunction with K 1001	SECURITY Specification: Unclassified Valve: Unclassified

→ indicates a change

TYPE OF VALVE: Velocity modulated coaxial line osc.

CATHODE: Indirectly heated

ENVELOPE: Glass

PROTOTYPE V240C/2K

MARKING

SEE K1001/4

DIMENSIONS

See drawing on Page 3

RATING

			Note
Heater voltage	(V)	6.3	
Heater current	(A)	0.26	
Tuning range	(Mc/s)	3950 to 4050	
Control grid voltage Vg1	(V)	-40	
Resonator voltage VR	(V)	255±15	
Screen grid voltage Vg2 (max)	(V)	400	A
Anode voltage Va	(V)	300	B
Cathode current (max)	(mA)	65	
Screen grid dissipation (max)	(W)	1.5	
Power output (min)	(mW)	350	
Mean power input (max)	(W)	18	
Magnetic field	(H)	1200	

BASE

B 7G

CONNEXIONS

Pin	Electrode
1	Control grid
2	Cathode
3	Heater
4	Heater
5	Anode
6	Resonator
7	Screen grid

Notes A. Adjusted to give a constant anode current of 35 mA.

B. Maintained constant at 300 volts throughout the tuning range

C. The total thermal drift from cold to the final operating frequency is between 7 and 10 Mc/s and is completed in about 5 mins. The frequency change with ambient temperature is about 50 kc/s per °C.

CV2189

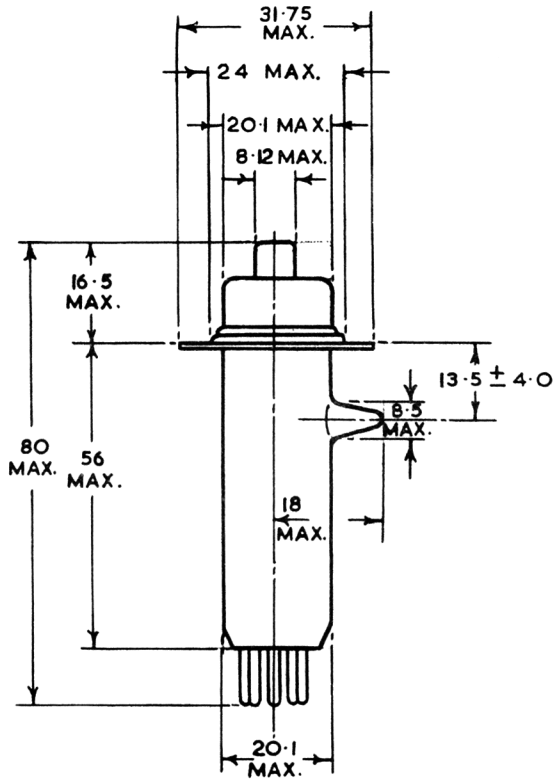
TESTS

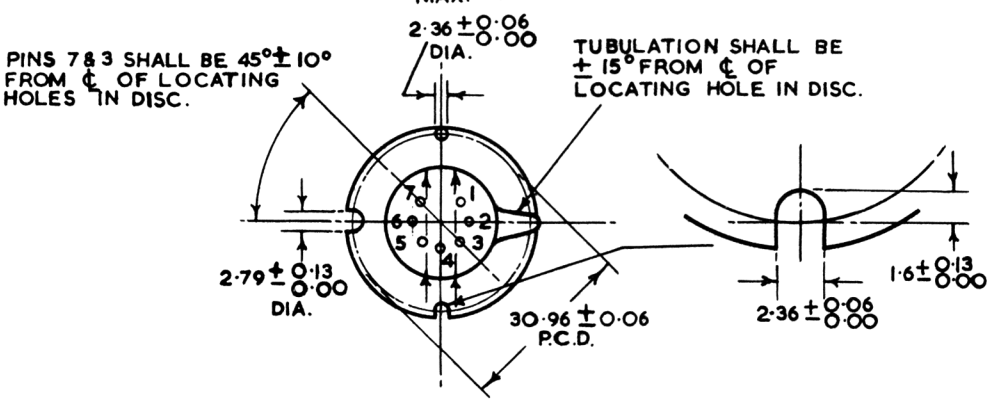
To be performed in addition to those applicable to K 1001

	Test Conditions							Test	Limits		No. Tested	Note
	Vh (V)	Vg1 (V)	Va (V)	VR (V)	Vg2 (V)	Ia (mA)	Ic (mA)		Min	Max		
a	6.3	-	-	-	-	-	-	Heater current (mA)	235	265	100%	1
b	6.6	-40	300	280	Adjust	-	50	Resonator current (mA) Screen grid voltage (V) Screen current (mA) Control grid current (μA)	- - - -	16 145 1.5 30	100%	2
c	5.0	-40	300	280	As in Test b	-	-	Cathode current (mA)	40	-	100%	2
d	6.0	-40	300	Adjust for max R.F. power	Adjust	35	-	Oscillation at 3940 Mc/s Resonator voltage (V) Power output (mW)	 240 350	 280 -	100%	2
e	6.0	-40	300	Adjust for max R.F. power	Adjust	35	-	Oscillation at 4060 Mc/s Resonator voltage (V) Power output (mW)	 240 350	 280 -	100%	2

NOTES 1. The heater shall be preheated for a period of not less than one minute before this and subsequent tests are carried out.

2. These tests to be carried out in an approved circuit.





ALL DIMENSIONS IN mm