MINISTRY OF SUPPLY (S.R.D.E.)

VALVE ELECTRONIC CV89

Specification MOS/CV89/Issue 8 Dated 11.3.46 To be read in conjunction with K1001, ignoring clause 5.3.	SECURITY Specification: ~~Restricted~~ Unclassified Valve: ~~Restricted~~ Unclassified ←

→ indicates a change

TYPE OF VALVE:- Magnetron CATHODE:- Indirectly heated ENVELOPE:- Glass PROTOTYPE:- E.1430	MARKING See K1001/4

RATING			Note
Heater Voltage	(V)	6.3	
Heater Current	(A)	0.3	
Maximum Anode Dissipation	(W)	8.5	
Magnetic Field Strength (approx.)	(H)	670	
Frequency	(Mc/s)	4762	
Nominal Output	(mW)	200	

BASE
B9G

Pin	Electrode
1	Heater
2	No Connection
3	Anode
4	No Connection
5	No Connection
6	Cathode & Heater.
7	No Connection
8	Anode
9	No Connection

DIMENSIONS
See K1001/A1/D2 and page 3.

TESTS

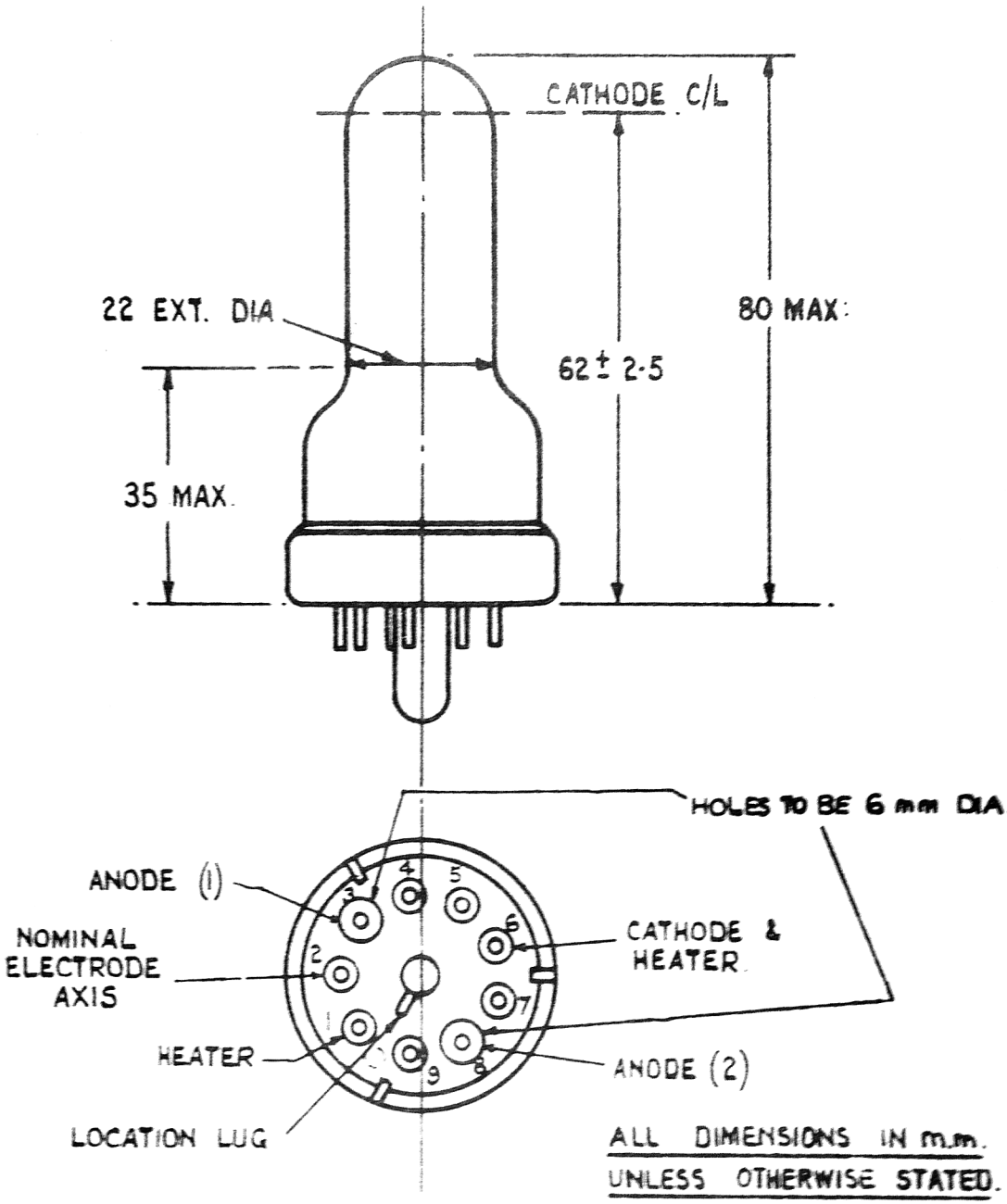
To be performed in addition to those applicable in K1001.

	Test Conditions		Test	Limits		No. Tested
				Min.	Max.	
	Vh	Ia(mA)				
a	6.3	-	Ih (A)	0.15	0.25	100% or S
b	6.3	11 (Note 5)	Frequency (Mc/s)	4675	4850	100%
c	6.3	11 (Note 5)	Output (mW)	100	-	100%
d	The valve must function in the Wireless Set No.10 according to the approved MOV test schedule.					

NOTES

1. Tests b and c are to be made on the valves when oscillating in an R.F. Oscillator which is a replica of the oscillator unit of Wireless Set No.10. The valve shall be symmetrically disposed and normal to the axis of the magnets.
2. The output load to consist of approximately 20 metres Uniradio No.21 Cable terminating in a GEC design Crystal Detector which approximately matches the cable. The D.C. output of the crystal is fed to a milliammeter.
3. The magnet system to be assembled with position of fixed magnet arranged so that with the adjustable magnet at two turns out a field of 670 oersteds is obtained in the centre of the gap.
4. The adjustable magnet to be set at two turns out.
5. The tests are to be made with D.C.H.T. supply adjusted to give anode current of 11 mA after adjustment of tilt.
6. The resonator piston in the oscillator is to remain at the full position.
7. The line piston and magnetron tilt are adjusted for maximum crystal current and the adjustable magnet moved to a maximum of $\pm \frac{1}{2}$ a turn if necessary, to bring the frequency within specified limits. The power output and frequency are then measured.
8. The reading of the milliammeter connected to the load crystal is converted to milliwatts by reference to a calibration of the crystal and the cable against a bolometer.

CV89



EXTERNAL VIEW.