VALVE ELECTRONIC **C.V.6055**

MINISTRY OF AVIATION, D.L.R.D./R.A.E.

SPECIFICATION:- M.O.A./CV.6055.	SECURITY	
	SPECIFICATION	VALVE
ISSUE No. 1A DATED 1.7.60.	Unclassified	Unclassified
To be read in conjunction with K1001. (omitting clause 5.3), BS.1409.		

→ Indicates a change

TYPE OF VALVE:- Disc Sealed Triode.

CATHODE:- Indirectly heated.

ENVELOPE:- Copper-glass.

PROTOTYPE:- CV.257, Modified.
CV.1736, Modified.

MARKING

See K1001/4. Serial No to be marked on the valve envelope

BASE

None. See drawing on page 4.

CONNECTIONS

See drawing on page 4.

DIMENSIONS

See drawing on page 4.

MOUNTING

Any

RATINGS

(All limiting values are absolute)

			NOTES
Heater Voltage	(V)	6.3	
Heater Current	(A)	4.0	
Max.Anode Voltage	(kV)	4.5	C
Max.Anode Dissipation	(W)	75	A
Min.Peak Emission	(A)	40	
Amplification Factor		22	B
Mutual Conductance	(mA/V)	16	B
Efficiency (F = 500Mc/s. Gain = 11db)	(%)	60	
Efficiency (F = 1000Mc/s. Gain = 8db)	(%)	40	
Max. Seal Temperature	(°C)	140	

CAPACITANCES (pF)

Cag (nom)	6.5
Ccg (nom)	10.5
Cac (nom)	0.3

NOTES

A. For this dissipation at ambient temperatures up to 30°C. forced air cooling shall be provided by not less than 5 cu.ft. of air per minute with a pressure drop across the valve of the order of 2 inches of water.

B. For Va = 500V., Ia = 100mA.

C. Under cathode modulated conditions. Pulse length not to exceed 2μsecs.

D. Designers Note. When mounting the valve, a rigid connection may be made to one electrode only.

E. The Joint Services Catalogue Number is:- 5960-99-037-2237.

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TESTS

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No. Tested	Notes
	Vh	Vg	Va	Ia (mA)		Min.	Max.		
a	6.3	-700	4.5kV	-	Conditions to be maintained for a period of one minute without flashing			100%	1,2,3
b	7.8	-700	0	-	Grid current (μA)	-	100	100%	1,2,4
c	7.5	-500	0	-	Grid current (μA)	-	100	100%	1,4
d	7.5	Adjust	500	100	Grid current (μA)	-	40	100%	1,5
e	6.3	0	0	0	Ih (A)	3.6	4.4	100%	1
f	6.3	Adjust	500	100	Vg (V)	-9.5	-14.0	100%	1
g	6.3	Adjust	500	100	Reverse grid current (μA)	-	10	100%	1,6
h	6.3	Adjust	400	100	Vg change from value obtained in test 'f' (V)	3.0	5.5	100%	1
j	6.3	Adjust 500 100 Peak grid swing ±1V Max			gm (mA/V)	14	-	100%	1
k	6.3	Adjust	500	10	Vg (V)	-	-30	100%	1
l	6.3	Anode and grid strapped Peak applied voltage = 750V Tp = 2 μ sec. p.r.f. = 50 per sec., pulse shape sinusoidal.			Peak emission (A)	40	-	100%	1
m	Measurement to be made at frequency of 1.0 Mc/s				Capacitances (pF) Cag Ccg Cac	 5.0 7.0 -	 8.0 14.0 0.5	 6 per week	

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NOTES

1. The above tests shall be carried out at least 28 days after the valve is pumped. Prior to testing, the valve shall be R.F. aged at full anode dissipation for at least one hour in an approved circuit. Forced air cooling as detailed in Note A on page 1 shall be used.

2. These tests form part of the processing of the valve, and having been met during manufacture, shall not be repeated for acceptance testing.

3. For this hot flash test, applied voltages shall be supplied through a circuit as in Fig.1.

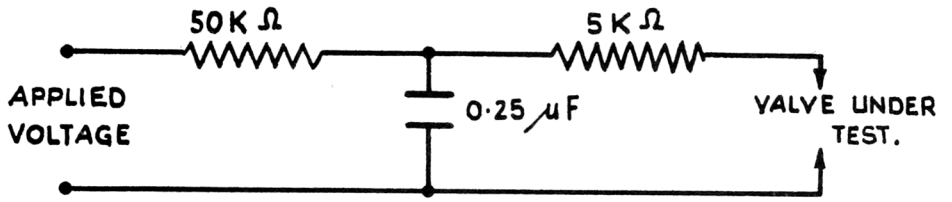
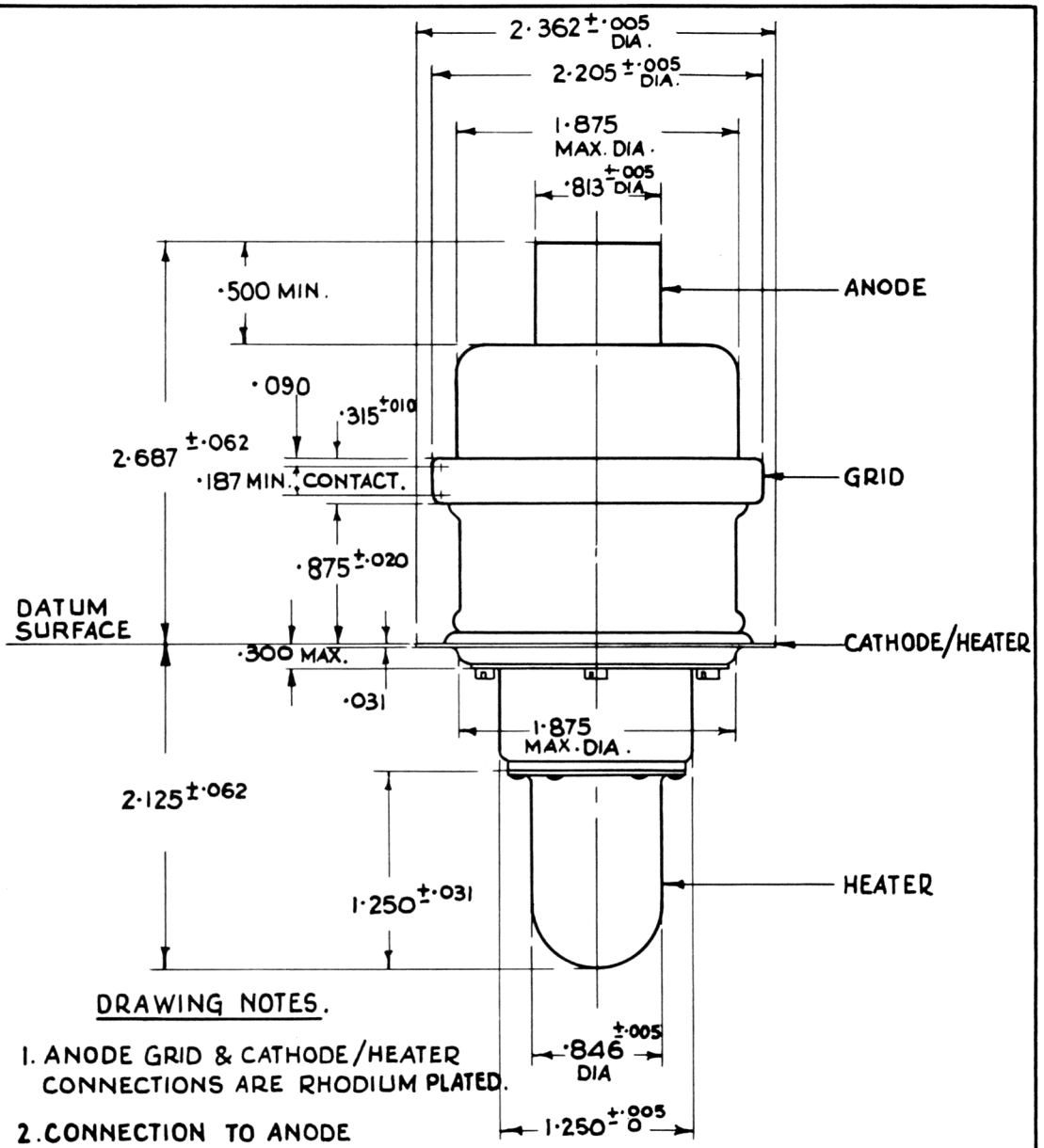


FIG. 1.

4. Anode and cathode to be strapped together. A grid limiting resistance of 0·5 Megohm shall be used, such that Ig does not greatly exceed 1mA under grid-cathode short circuit conditions.

5. This test to be performed after the valve has been run on "heaters only" for 20 mins. The grid current is to be within specification, less than 5 secs. after application of H.T.

6. Reverse grid current to come within limits, in less than 5 mins. after switching on.



DRAWING NOTES.

1. ANODE GRID & CATHODE/HEATER CONNECTIONS ARE RHODIUM PLATED.
2. CONNECTION TO ANODE MUST BE ROUND OUTSIDE OF RADIATOR.
3. CONCENTRICITY SHALL BE CHECKED BY MEANS OF THE GAUGE SPECIFIED ON PAGE 5.

OUTLINE DRAWING.

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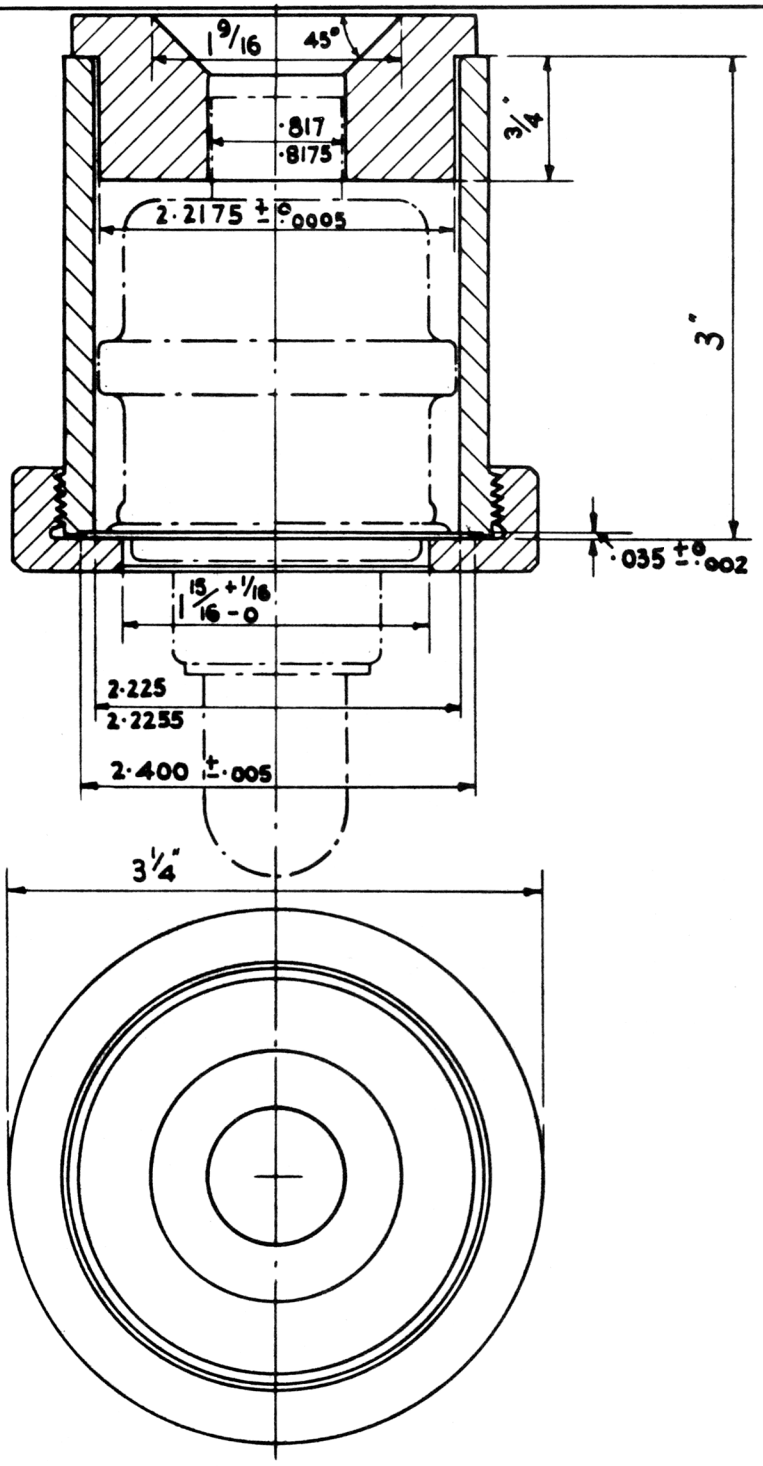

CONCENTRICITY GAUGE.

ELECTRONIC VALVE SPECIFICATIONS
SPECIFICATION M.O.A./CV6055
ISSUE NO.1A. DATED 1.7.60.
AMENDMENT NO.1.

Page 1

RATINGS

Add the following additional rating:

Max. Seal Temperatures	(°C)	140

MARKING

After "See K1001/4"
Insert:- "Serial No. to be marked on the valve envelope."

July, 1960
N.33401

Royal Aircraft Establishment