

MINISTRY OF SUPPLY - DLRD/RRE

VALVE ELECTRONIC CV2395

Specification MOS/CV2395 Issue 1, dated 23rd February, 1959. To be used in conjunction with K1001, BS448, BS1409	<u>SECURITY</u> <table border="1"> <tr> <td><u>Specification</u></td><td><u>Valve</u></td></tr> <tr> <td>UNCLASSIFIED</td><td>UNCLASSIFIED</td></tr> </table>	<u>Specification</u>	<u>Valve</u>	UNCLASSIFIED	UNCLASSIFIED
<u>Specification</u>	<u>Valve</u>				
UNCLASSIFIED	UNCLASSIFIED				

indicates a change

TYPE OF VALVE - Disc Seal Triode for Pulse operation		<u>MARKING</u>	
CATHODE - Indirectly Heated		See K1001/4	
ENVELOPE - Glass			
PROTOTYPE - CV273			
<u>RATING</u>		<u>DIMENSIONS</u> and <u>CONNECTIONS</u>	
All limiting values are absolute			
		Note	
Heater Voltage	(V)	6.8	
Heater Current	(A)	0.4	
Max. Anode Voltage	(V)	720	
Max. Anode Dissipation	(W)	10	A
Max. Mean Anode Current	(mA)	50	B
Max. Peak Anode Current	(mA)	150	B
Amplification Factor		30	C
Mutual Conductance	(mA/V)	6	C
Efficiency at wavelength of 30 cms	(%)	28	B
Efficiency at wavelength of 10 cms	(%)	5	B
<u>CAPACITANCES</u> (pF)			
C _{ag} (nom)		1.1	
C _{ak} (max)		.03	
C _{gk} (nom)		2.0	
<u>NOTES</u>			
A. The anode seal temperature must not exceed 140°C. To achieve this and to limit the rate of change of anode seal temperature the mass of metal in close thermal contact with the anode disc shall be not less than 2 oz (approx. 60 gm) of brass, or its equivalent.			
B. Under CW. conditions.			
C. With V _a = 250V, I _a = 20mA.			

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Z.18936.

CV2395

TESTS

To be performed in addition to those applicable in K1001

Test conditions - unless otherwise specified $V_h = 6.3V, V_a = 250V, I_a = 20mA$									
K1001	TEST	TEST CONDITIONS	AQL %	Insp. level	Sym-bol	LIMITS			UNITS
						Min.	bogey	Max.	
5.1	General Inspection	No voltages		100%					
	Heater Current	$V_h = 6.8V$		100%	I_h	0.37	0.42	0.47	A
	Reverse Grid Current (1)	$V_a = 350V, I_a = 30mA$ Note 4		100%	I_{g1}	-	-	1.0	μA
	Reverse Grid Current (2)	$V_a = 350V, I_a = 2mA$		100%	I_{g1}	-	-	1.0	μA
	Negative Grid Voltage (1)	I		100%	V_{g1}	2	5.5	9	V
	Negative Grid Voltage (2)	$I_a = 2mA$		100%	V_{g1}	-	-	15	V
	Anode Tail Current	$V_a = 720V$ $V_g = -48V$		100%	I_a	-	-	10	μA
	Peak Power Output	$V_h = 6.8V$ $V_a = 720V, tp = 1\mu s$ (nom) p.r.f. = 400p.p.s. (nom) $\lambda = 10.5 \pm .1$ cms -50V bias, drive to +20V Notes 1 & 2		100%	P_o	40	-	-	W
	Mutual Conductance			100%	g_m	3.0	6.0	-	mA/V
	Capacitances	Note 3	6.5	IA	C_{ag}	0.7	-	1.4	pF
					C_{ak}	-	-	0.03	pF
					C_{gk}	1.5	-	2.4	pF
AIII									

NOTES

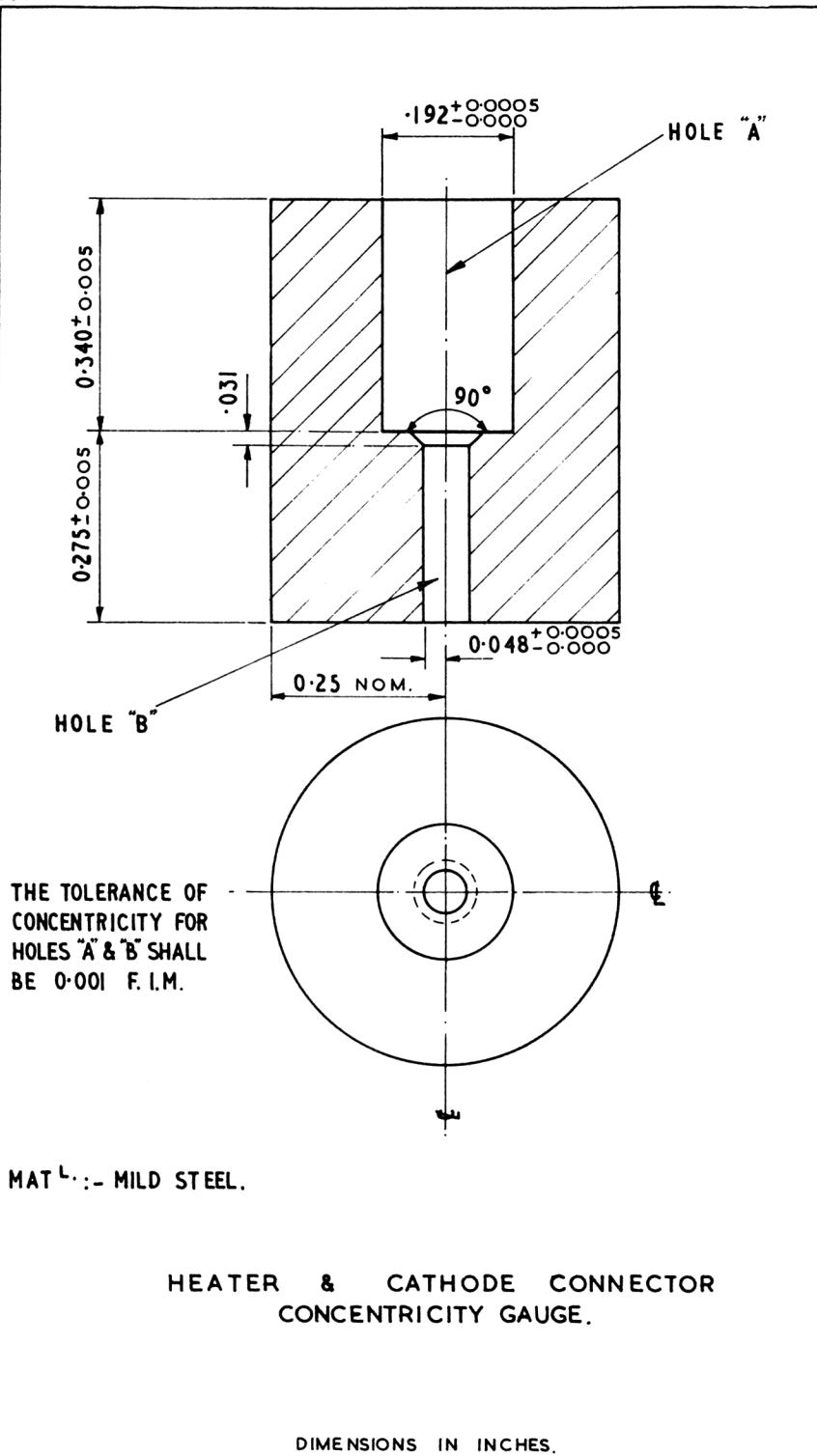
1. The tests shall be made in an approved cavity to the following drawings:-

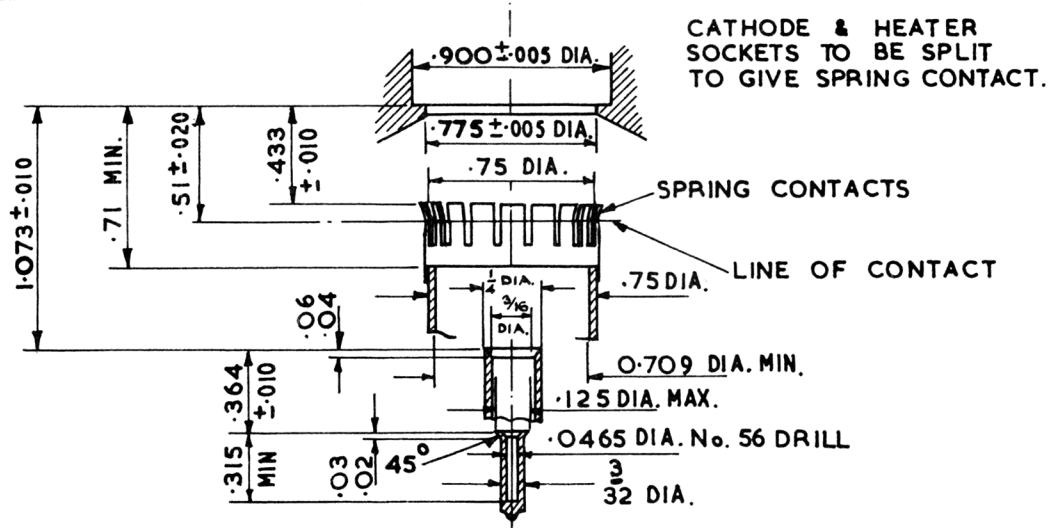
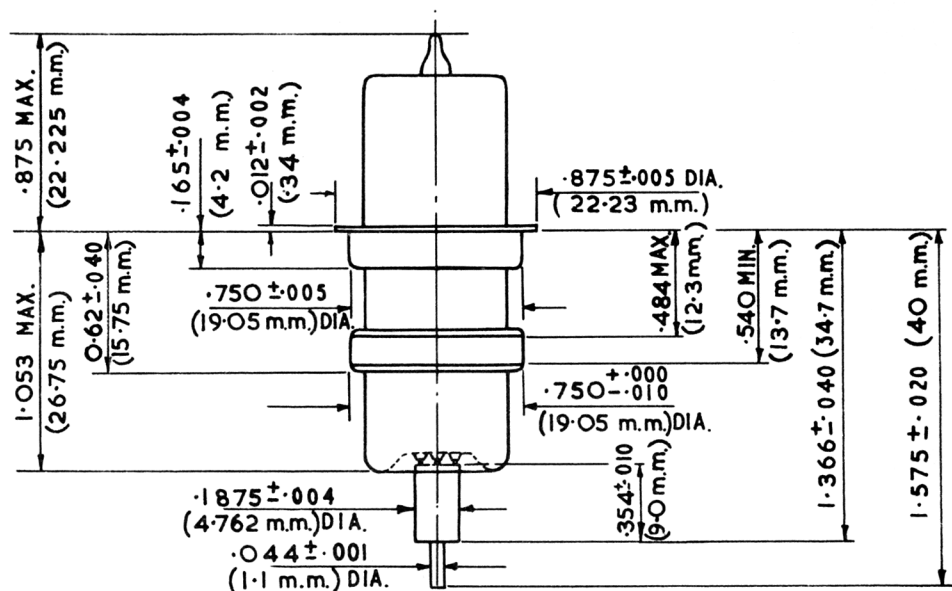
RR/C611700	RR/A611704
RR/B611701	RR/A611705
RR/A611702	RR/A611706
RR/A611703	RR/A611707

These drawings are obtainable from Royal Radar Establishment, St. Andrews Road, Great Malvern, Worcestershire.

2. The peak power may be calculated from measurements of mean power, p.r.f. and tp.
3. Measurements shall be made at a frequency of 1.0 Mc/s using a jig which shall conform to R.A.E. drawing No. W.T.40482 or any other approved method.
4. The valves shall be run for 1 minute before the reading is taken.

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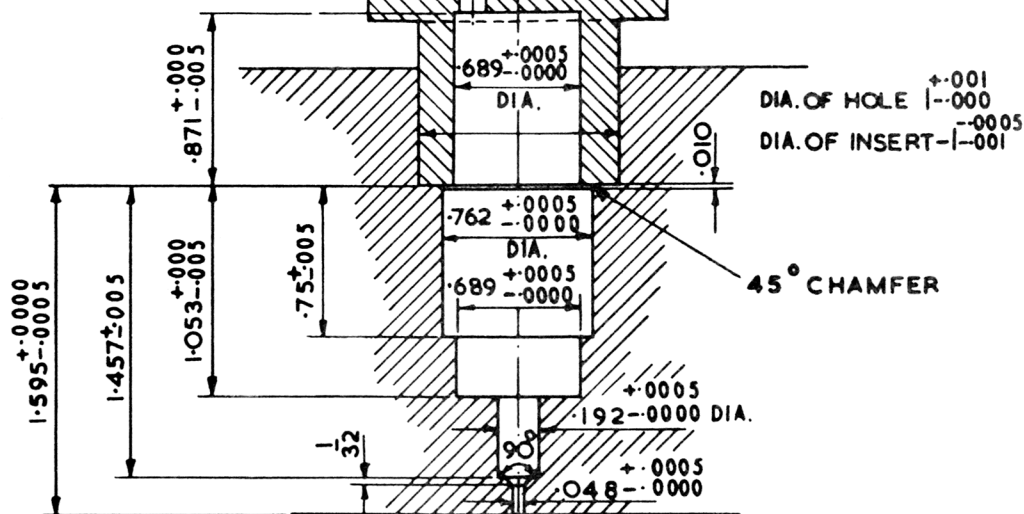
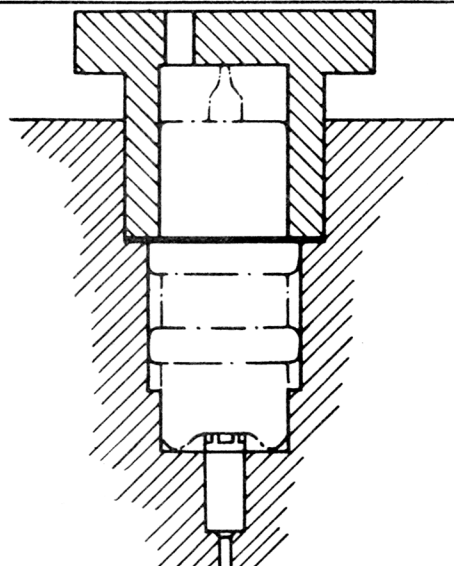
CATHODE & HEATER
SOCKETS TO BE SPLIT
TO GIVE SPRING CONTACT.

RECOMMENDED CIRCUIT DIMENSIONS.

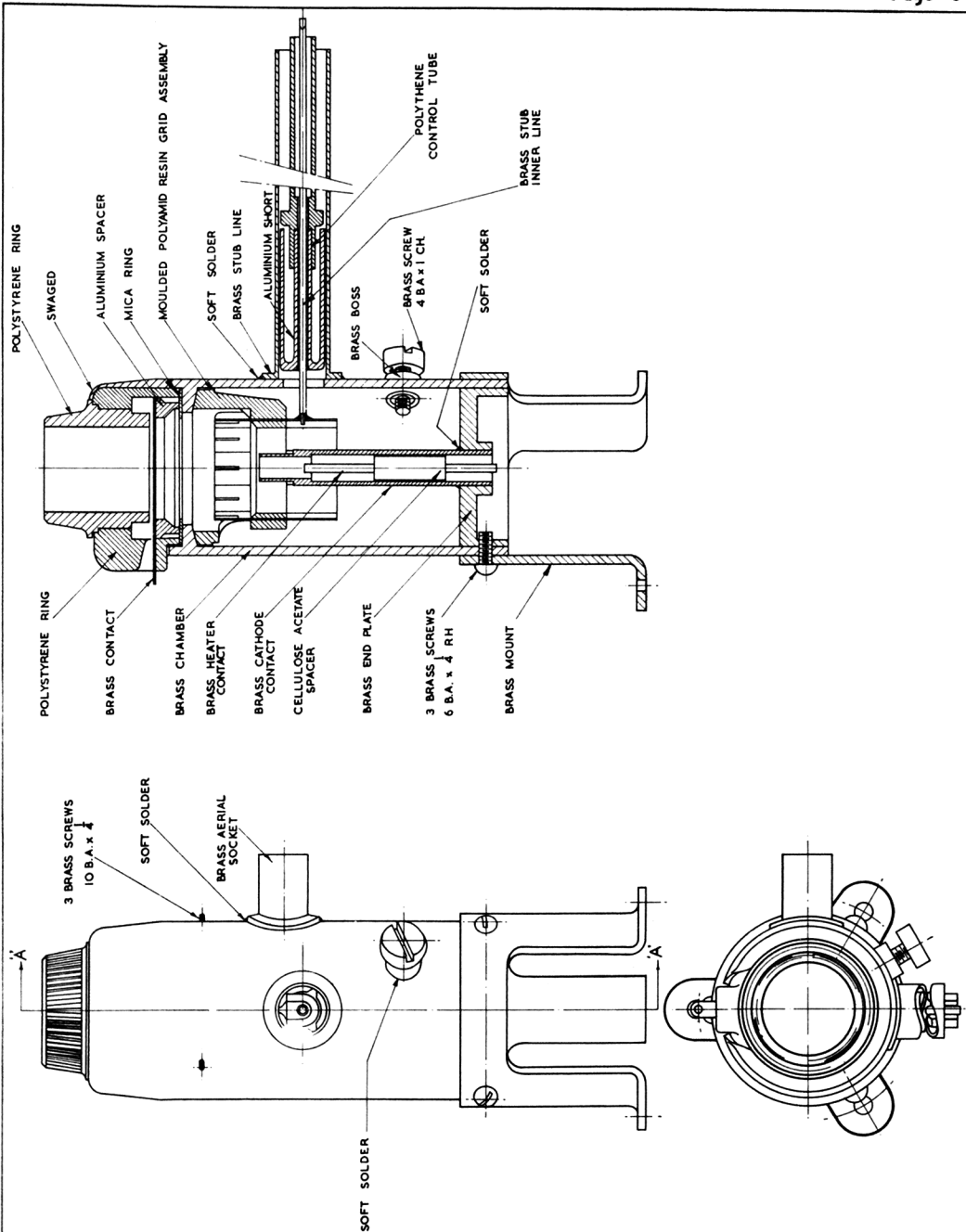
DIMENSIONS IN INCHES.

CV2395/1/4

DRILL $\frac{1}{8}$ DIA. HOLE FOR AIR
RELEASE. $\frac{7}{32}$ OFF CENTRE.

SECTION OF ϕ OF GAUGESECTION ON ϕ OF GAUGE SHOWING VALVE IN POSITION.

DIMENSIONS IN INCHES.



GENERAL CONSTRUCTION OF TEST CAVITY.

DIMENSIONS IN INCHES.