MINISTRY OF SUPPLY - DIRD/RRE

VALVE ELECTRONIC CV2395

Specification MOS/CV2395 Issue 1, dated 23rd February, 1959. To be used in conjunction with K1001, BS448, BS1409	SECURITY	
	Specification	Valve
	UNCLASSIFIED	UNCLASSIFIED

indicates a change

TYPE OF VALVE - Disc Seal Triode for Pulse operation
CATHODE - Indirectly Heated
ENVELOPE - Glass
PROTOTYPE - CV273

MARKING

See K1001/4

RATING

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

DIMENSIONS and CONNECTIONS

See drawings on pages 3, 4, 5 and 6.

CAPACITANCES (pF)

Cag (nom)	1.1	
Cak (max)	.03	
Cgk (nom)	2.0	

NOTES

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 Va = 250V, Ia = 20mA.

Z.18936.

CV2395

TESTS

To be performed in addition to those applicable in K1001

Test conditions - unless otherwise specified Vh = 6.3V, Va = 250V, Ia = 20mA

K1001	TEST	TEST CONDITIONS	AQL %	Insp. level	Symbol	LIMITS Min.	LIMITS bogey	LIMITS Max.	UNITS
5.1	General Inspection	No voltages		100%					
	Heater Current	Vh = 6.8V		100%	Ih	0.37	0.42	0.47	A
	Reverse Grid Current (1)	Va = 350V, Ia = 30mA Note 4		100%	Ig_1	-	-	1.0	/uA
	Reverse Grid Current (2)	Va = 350V, Ia = 2mA		100%	Ig_1	-	-	1.0	/uA
	Negative Grid Voltage (1)	I		100%	Vg_1	2	5.5	9	V
	Negative Grid Voltage (2)	Ia = 2mA		100%	Vg_1	-	-	15	V
	Anode Tail Current	Va = 720V, Vg = -48V		100%	Ia	-	-	10	/uA
	Peak Power Output	Vh = 6.8V, Va = 720V, tp = 1/nS (nom), p.r.f. = 400p.p.s. (nom), $\lambda = 10.5 \pm .1$ cms, -50V bias, drive to +20V, Notes 1 & 2		100%	Po	40	-	-	W
	Mutual Conductance			100%	gm	3.0	6.0	-	mA/V
ATII	Capacitances	Note 3	6.5	IA	Cag	0.7	-	1.4	pF
					Cak	-	-	0.03	pF
					Cgk	1.5	-	2.4	pF

NOTES

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

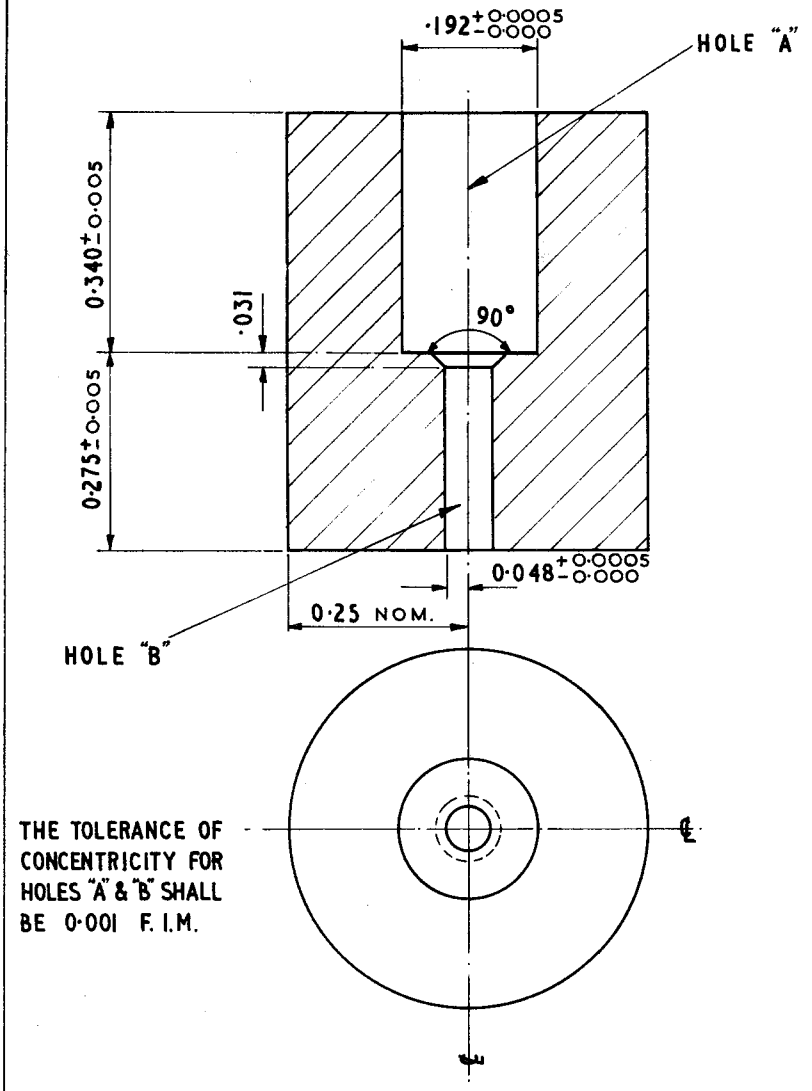
RR/C611700	RR/A611704
RR/B611701	RR/A611705
RR/A611702	RR/A611706
RR/A611703	RR/A611707

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.

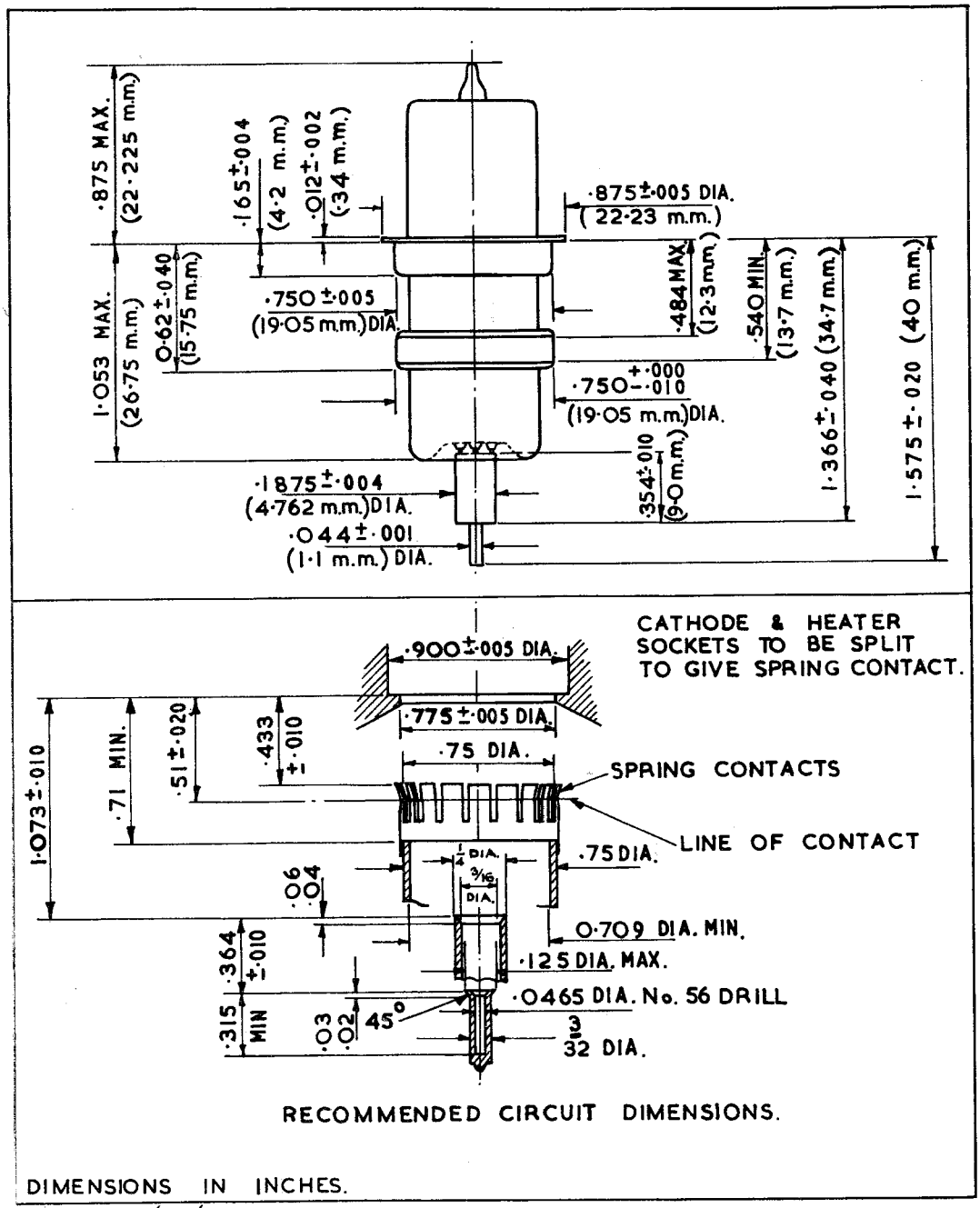


MAT^{L}·:- MILD STEEL.

HEATER & CATHODE CONNECTOR CONCENTRICITY GAUGE.

DIMENSIONS IN INCHES.

CV 2395/1/3


·875 MAX. (22·225 m.m.)
·165±·004 (4·2 m.m.)
·012±·002 (·34 m.m.)
·875±·005 DIA. (22·23 m.m.)
1·053 MAX. (26·75 m.m.)
0·62±·040 (15·75 m.m.)
·750±·005 (19·05 m.m.)DIA.
·484 MAX. (12·3 m.m.)
·540 MIN. (13·7 m.m.)
1·366±·040 (34·7 m.m.)
1·575±·020 (40 m.m.)
·750 +·000 −·010 (19·05 m.m.)DIA.
·354±·010 (9·0 m.m.)
·1875±·004 (4·762 m.m.)DIA.
·044±·001 (1·1 m.m.) DIA.
CATHODE & HEATER SOCKETS TO BE SPLIT TO GIVE SPRING CONTACT.
·900±·005 DIA.
·775±·005 DIA.
·75 DIA.
SPRING CONTACTS
LINE OF CONTACT
·75 DIA.
1·073±·010
·71 MIN.
·51±·020
·433±·010
·06 ·04
1/4 DIA.
3/16 DIA.
0·709 DIA. MIN.
·125 DIA. MAX.
·364±·010
·315 MIN
·03 ·02
45°
·0465 DIA. No. 56 DRILL
3/32 DIA.
RECOMMENDED CIRCUIT DIMENSIONS.
DIMENSIONS IN INCHES.

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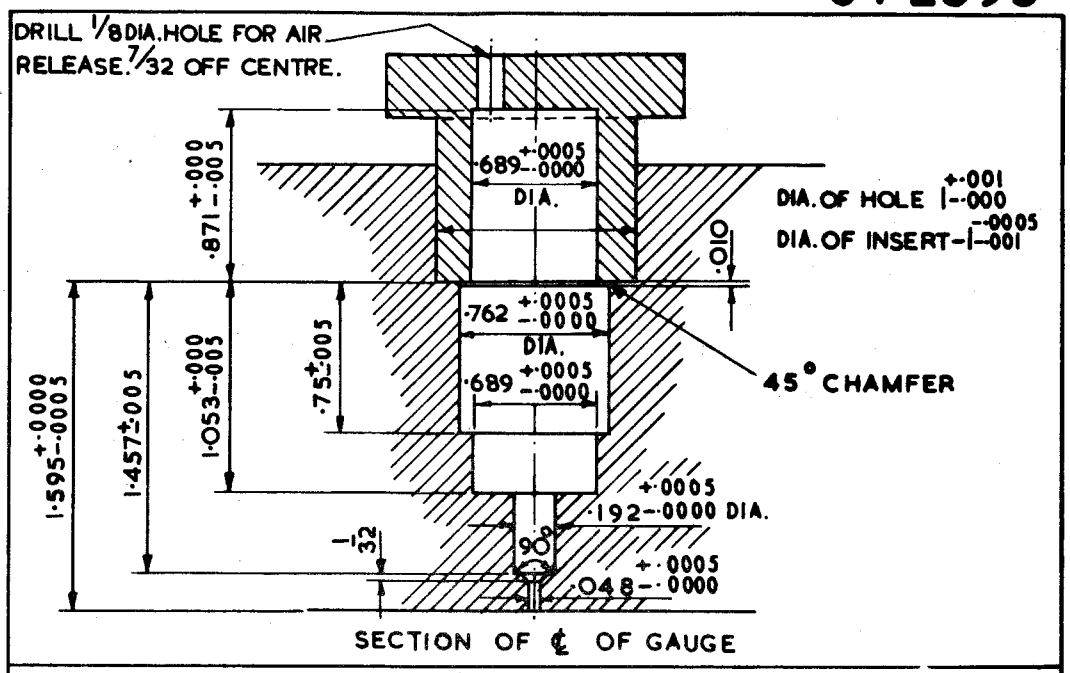
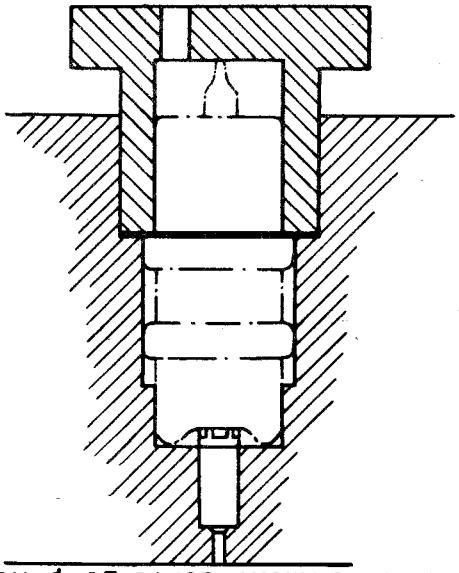
CV2395



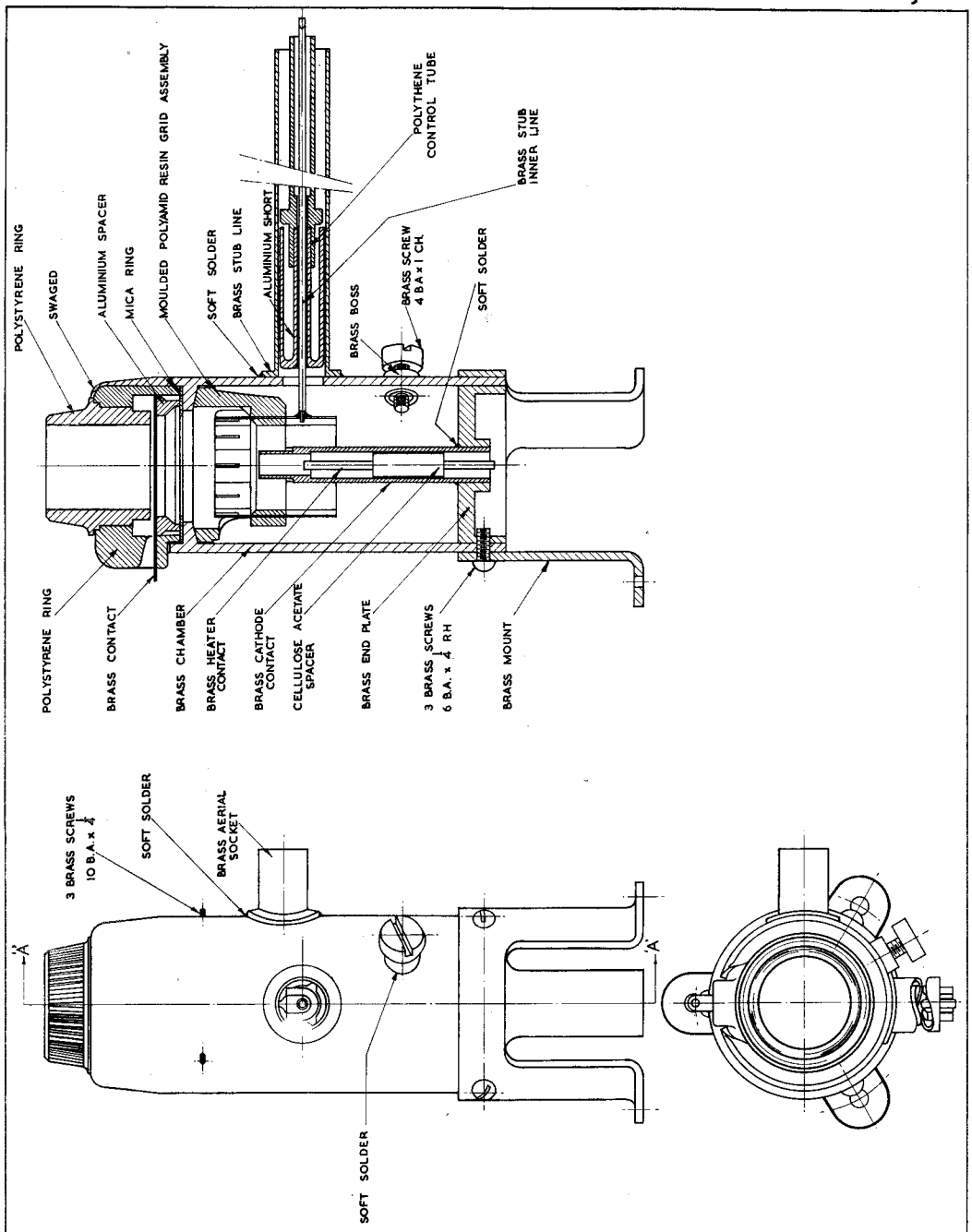
SECTION OF ℄ OF GAUGE



SECTION ON ℄ OF GAUGE SHOWING VALVE IN POSITION.

DIMENSIONS IN INCHES.

CV2395/1/5



GENERAL CONSTRUCTION OF TEST CAVITY.

DIMENSIONS IN INCHES.

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