MINISTRY OF SUPPLY - D.L.R.D.(A)/R.A.E.

VALVE ELECTRONIC

CV28

Specification MOSA/CV28 Issue 4 Dated 26.1.1955 To be read in conjunction with BS.1409, and K1001, ignoring clauses 5.2, 5.8.	SECURITY	
	Specification	Valve
	UNCLASSIFIED	UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Aircooled triode

CATHODE - Directly heated, tungsten filament

ENVELOPE - Metal glass construction

→ PROTOTYPE - MOV ACT9 or 3J/121E

MARKING

See K.1001/4 and Note D

BASE

None

RATING			Note
Filament Voltage	(V)	Marked Value	A
Filament Current	(A)	22	
Max. Anode Voltage	(kV)	10	
Max. Anode Dissipation	(kW)	0.8	B
Mutual Conductance	(mA/V)	3.1	C
→ Anode Impedance	(kΩ)	12.5	C
Amplification Factor		40	C
Maximum total emission at 90% saturation	(A)	2	
Maximum input -			
Below 3 Mc/s	(kV)	10	
	(mA)	400	
Up to 30 Mc/s	(kV)	5	
	(mA)	400	
Up to 60 Mc/s	(kV)	4	
	(mA)	400	
CAPACITANCES (pF)			
C in (nom)		23.2	
C out (nom)		1.6	
Ca,g1 (nom)		15.9	

CONNECTIONS AND DIMENSIONS

See Drawings on pages 3 or 4 ←

NOTES

A. Marked Value of Vf will be that of test (c).

B. With unrestricted air circulation. The dissipation may be increased to 1.1 kW, with forced air circulation giving an airflow pressure equal to 3" of water.

C. At Va = 5kV, Ia = 200 mA.

D. The valve shall be marked with the filament voltage, as determined in test shown on Page 2, Clause C. ←

N.B. VALVE ELECTRONIC CV28, LESS COOLING FINS, IS VALVE ELECTRONIC CV1994. ←

CV28

TEST

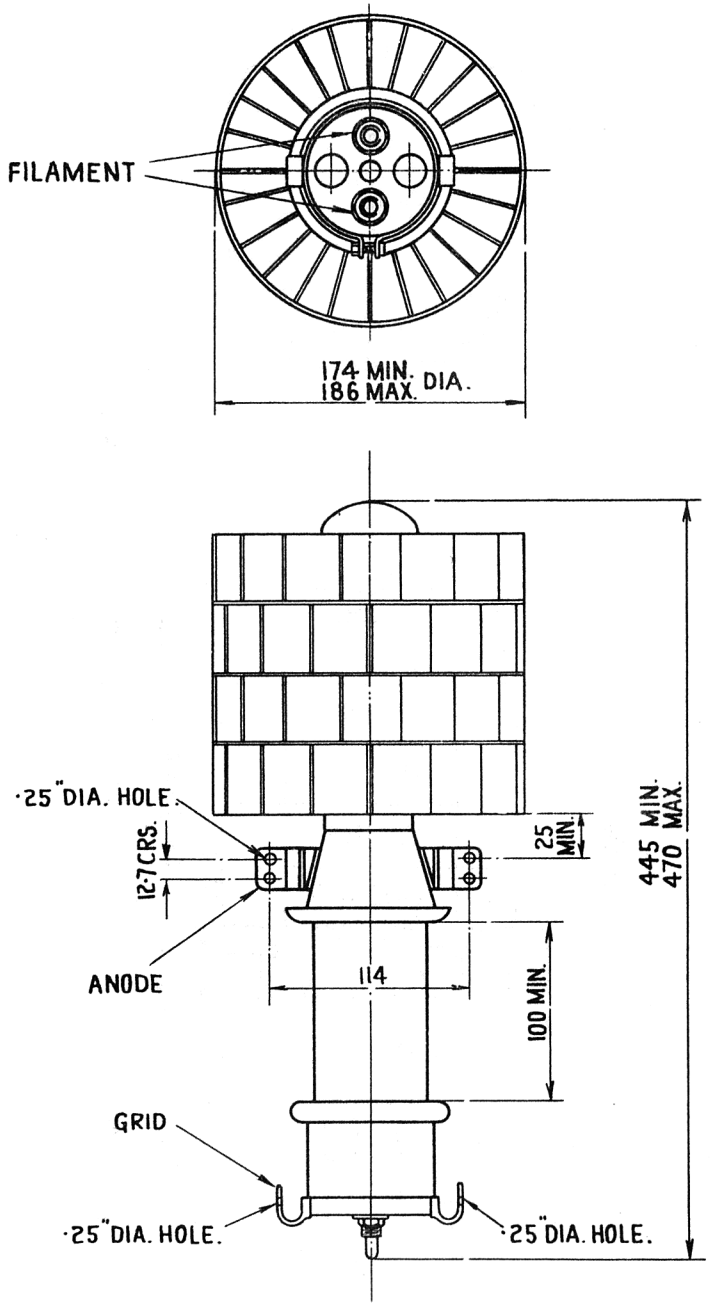
To be performed in addition to those applicable in K1001

	Test conditions				Test	Limits Min	Limits Max	No Tested
a	See K1001/AIII				Capacitances (pF) C in C out Ca,g1	 - - -	 29.0 2.0 20.0	 2%(10) 2%(10) 2%(10)
b	Vf	Va	Vg	Ia(mA)				
	16.0	0	0	0	If (A)	21.0	24.0	100%
c	-	500 Volts to grid and anode strapped		300	Vf (V) This value of Vf times 1.29 is to be the marked voltage	11.7	13.2	100%
d	16.0	5000	-	200	Ia to be maintained steady for 10 mins. the grid potential being read at the commencement of the test and after successive intervals of 1 min. During test the grid potential shall attain a steady value. Grid potential variation throughout test (V) Reverse Ig1 at beginning and end of test (µA)	- -	6.0 30.0	100% 100%
e	Marked Voltage	5000	-	200	Amplification factor	34.0	46.0	100%
f	Marked Voltage	5000	-	200	Anode Impedance (Ω)	11,000	15,000	100%

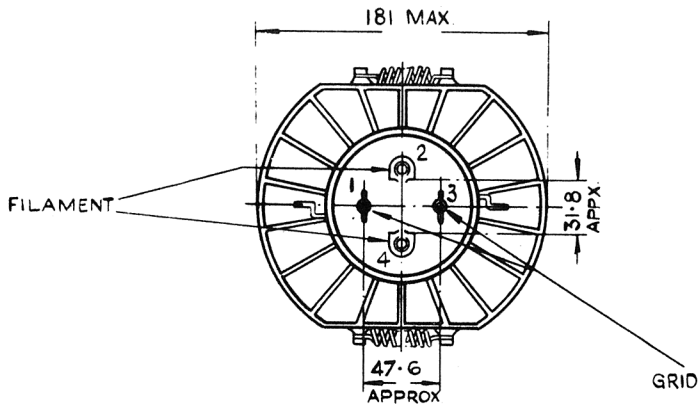
Life A minimum life of 1000 hours is expected, life failure being considered to occur when the emission of the valves has fallen below 300 mA with a filament voltage of 10% above that required for an emission of 300 mA at the commencement of the life test; other conditions as in test clause 'c' above. The designs, materials and processing should be controlled with this in view.

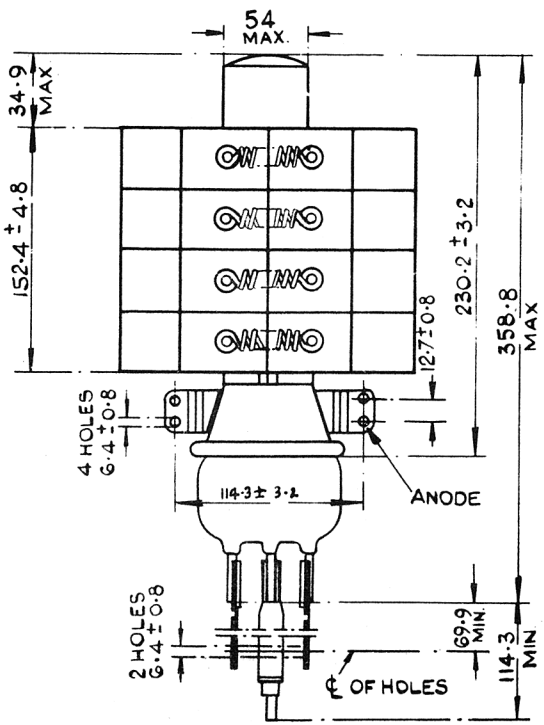
Records will be kept by Service users of the lives (against each serial number), and cases of poor lives will be reported for the guidance of the contractor.

CV28



DIMENSIONS IN MILLIMETERS EXCEPT WHERE OTHERWISE STATED.





ALL DIMENSIONS IN MILLIMETERS