VALVE ELECTRONIC **CV240**

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV240/Issue 4. Dated :- 28.5.48. To be read in conjunction with K1001, ignoring clause :- 5.8.	SECURITY Specn. Unclass [redacted] Valve. Unclassified

→ Indicates a change

TYPE OF VALVE:- Triode with air cooled anode
CATHODE:- Indirectly heated, oxide coated
ENVELOPE:- Metal - Glass
PROTOTYPE:- E1496

MARKING

See K1001/4.

RATING			Note
Heater Voltage	(V)	6.0	
Heater Current	(A)	17.0	
Max. peak anode voltage	(kV)	15.0	A
Max. anode dissipation	(kW)	1.0	B
Amplification factor		35.0	
Min. peak emission	(A)	125.0	
CAPACITANCES (pF.approx.)			
→ Cag		16.0	
→ Cgc		18.0	
→ Cac		4.5	

DIMENSIONS AND CONNECTIONS

See drawing page 3.

PACKAGING

See K1005.

NOTES

A. The valve is initially designed to operate as an oscillator at 80 - 90 Mc/s with Tp = 15 μS, PRF = 250 p/S.

B. Cooling. During operation the temperature of the anode and grid seals must be kept below 140°C. Forced air cooling with a flow of approximately 70 cub.ft. per minute for the anode and 6 cub.ft. per minute for the grid is necessary, the approximate pressure drops being of the order of 1½-inches and 1-inch respectively.

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions				Test	Limits		No. Tested
	Vh (V)	Va (kV)	Ia (mA)	Vg (V)		Min.	Max.	
a	6.0				Ih (A)	15.3	18.7	100%
b	6.0	2	500		-Vg (V)	-13	-33	100%
c	6.0	2	500		-Ig (gas-current) (μA)	-	50	100%
d	6.0	1.5	500		Change in -Vg from test 'b' (V)	11	18	100%
e	6.0				Peak emission (A)	125	-	100%
	Peak emission to be measured with Va = Vg = 2 kV, Tp = 2 μS, PRF 50 p/S, pulse shape - sinusoidal.							
→ f	Capacitances measured with valve cold on approved gear at 1 ~~kc/s~~ 1 Mc/s.				Cac	3.0	6.0	5% (not less than 2 p.w.)
→					Cag	15	17.5	
→					Cgc	16	20	
g	Functional test. The valve to be run in an approved equipment under normal operating conditions (Va = 15 kV, Pulse length 15 μS) for a period of not less than 5 minutes.							100%

V106
AMD.
No. 1.
DATED
AUGUST
1963.
HK.

DIMENSIONS & CONNECTIONS CV 240