

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION AD/CV. 2110

ISSUE 3 DATED 10. 2. 54

AMENDMENT NO. 1

Page 1 Near middle of page at right-hand side, under heading "TOP CAP",

Amend "K1001/AI/D5.1" to "K1001/AI/D5.9"

Immediately beneath under column heading "Dimension"

Amend "D(mm)" to "A(mm)"
and "L(mm)" to "B(mm)"

May, 1960

N. 17179

T.V.C. for
A.S.W.E.

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV2110 Issue 3. Dated 10.2.54. To be read in conjunction with K1001.	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

—————> Indicates a change.

<u>TYPE OF VALVE:-</u> Gas Modulator Hydrogen Thyratron.		<u>MARKING</u>	
<u>CATHODE:-</u> Indirectly Heated.		See K1001/4.	
<u>ENVELOPE:-</u> Glass.		<u>Additional Marking:-</u>	
<u>PROTOTYPE:-</u> BT83.		Serial No.	
		<u>BASE</u> B4D	
<u>RATING</u>		<u>CONNECTIONS</u>	
		Pin	Electrode
Heater Voltage (V)	6.3 +0.3	1	Grid
Heater Current Approx. (A)	1.5	2 & 4	Heater/Cathode
Min. Heating Time (mins)	5	3	Heater
Max. Peak Anode Voltage (Forward) (kV)	8	TC	Anode
Max. Peak Anode Voltage (Inverse) (kV)	2	<u>TOP CAP</u>	
Max. Peak Anode Current (A)	200	See K1001/AI/D5.1.	
Max. Mean Anode Current (mA)	65	Dimension	Min. Max.
Max. Rate of Rise of Anode Current (A/μS)	1500	D (mm)	15.8 16.7
Min. Trigger Volts (V)	250	L (mm)	12 -
Max. Pulse Rep. Freq. (pps)	2500	<u>DIMENSIONS</u>	
		See K1001/AI/D1.	
		Dimension	Min. Max.
		A (mm)	- 200
		B (mm)	- 68

NOTES

- A. These ratings are for operation in a modulator with a pulse length not exceeding 2 μsec.
- B. The product of peak anode current and pulse repetition freq. should not exceed 100,000 A/sec. For long life conditions the peak anode current should be a fraction of the rated max.
- C. The trigger pulse should be at least 3 μs long at the 250 V level and have a time of rise not less than 1/2 μsec. The time of rise may be reduced if higher trigger voltages are used. The impedance of the driving circuit should not exceed 2000 ohms and the grid/cathode d.c. resistance should not exceed 5000 ohms.

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions			Test	Limits		No. Tested	Note
	V _b (V)	V _a (kV)	V _g (V)		Min.	Max.		
a	6.30	-	-	I _h (A)	9.5	12	100%	
b	6.0	8	0	Satisfactory operation in an approved line discharge modulator at 8 kV (min) hold off voltage passing pulses of 45 A peak of 1 μ s duration, 1500 pps.			100%	1
				Grid striking voltage (V)	40	200		
				Anode delay time (μ sec)	-	.2		2
				Duration of test (mins)	2	3		
c	6.6	8	0	As test 'b' except Duration of test (mins)	10	-	100%	

NOTES

- The valve shall operate satisfactorily at full voltage within 1 min. after application of anode voltage (and after 5 mins. cathode preheating).
- The anode delay time is the time interval between the striking of the grid and the build-up of anode current.