VALVE ELECTRONIC

ADMIRALTY SURFACE WEAPONS ESTABLISHMENT

CV2109

Specification AD/CV2109 Issue 3 dated 31.8.59. To be read in conjunction with K1001	SECURITY Specification: Unclassified Valve: Unclassified

→ Indicates a change

TYPE OF VALVE: Xenon Thyratron Triode Type.

CATHODE: Directly Heated

ENVELOPE: Glass

PROTOTYPE: VX4099

MARKING

See K1001/4

BASE

B4

See K1001/A1V/D5.1

RATING

(All limiting values are absolute)

			Note
Filament Voltage	(V)	2.5	A
Filament Current (Approx.)	(A)	5	A
→ Max. Positive Anode Voltage	(V)	1000	C
→ Max. Negative Anode Voltage	(V)	1500	C
Max. Peak Anode Current	(A)	2	
Max. Mean Anode Current	(A)	0.5	
→ Max. Negative Grid Voltage	(V)	100	B,C

CONNECTIONS

Pin	Electrode
1	No connection
2	Grid
3	Filament
4	Filament
TC	Anode

TOP CAP

See K1001/A1/D5.1

DIMENSIONS

See K1001/A1/D1

Dimension	Min.	Max.
A (mm)	110	125
B (mm)	36	40

PACKING

See K1005

NOTES

A. The filament must be run for 20 secs. before an anode current in excess of 20 mA peak may be passed.

B. Applied through 10 megohms max.

→ C. The cathode connection for the anode and grid supply voltages should be made either to the centre tap of the secondary of the filament transformer or to pin 3; but not to pin 4.

TESTS

To be performed in addition to those applicable in K1001.

	TEST CONDITIONS			TEST	LIMITS		NO. TESTED	NOTES
	Vf (Va.c.)	Va (V)	Vg (V)		MIN.	MAX.		
a	2.5	-	-	If (A)	4.5	5.3	100%	
b	2.5	-	0	Va at which conduction starts (V)	-	100	100%	1,2
	Positive voltage applied to anode through a 200 ohms resistor and this voltage increased until valve conducts							
c	2.5	500	-	Negative grid voltage at which conduction starts (V)	-	12	100%	1,2
	Va applied through a 200 ohms resistor. Negative voltage applied to grid through a 10 megohms resistor and then reduced to value at which conduction starts.							
d	2.35	Adjust to give Ia = 0.5A	0	Va when Ia = 0.5A (V)	-	12	100%	1,2
e	2.5	1200 See Note 3	-100	High Forward Anode Voltage. See Note 3.	-	-	100%	2
f	2.5	-1700 See Note 4	0	High Inverse Anode Voltage. See Note 4.	-	-	100%	2

NOTES

1. The filament voltage must be at 2.5V for at least 20 secs. before an anode current in excess of 20 mA peak is passed.

2. The cathode connection for the anode and grid supply voltages shall be made to pin 3.

3. After Vf has been at 2.5 volts for at least 2 minutes, apply Vg = -100V, and then Va = 1200V through anode resistor of 100K ohms. Va shall be applied for at least 15 seconds, and while it is applied there shall be no sign of voltage breakdown or sparking in the valve.

4. After Vf has been at 2.5 volts for at least 2 minutes, apply Va = -1700V through anode resistor of 100K ohms. Va shall be applied for at least 15 seconds, and while it is applied there shall be no sign of voltage breakdown or sparking in the valve.