

VALVE ELECTRONICADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV2134/Issue 1. Dated 24.8.50. To be read in conjunction with K1004.	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

<u>TYPE OF VALVE</u> :- Vacuum Photo Electric Cell.			<u>MARKING</u> See K1001/4, Also Notes 'A' and 'B' below.		
<u>CATHODE</u> :- Caesium on Oxidised Silver.			<u>BASE</u> B7G See K1001/AIV/D9.		
<u>ANODE</u> :- Frame or Rod Type.			<u>CONNECTIONS</u>		
<u>ENVELOPE</u> :- Glass.			<u>Pin</u>	<u>Electrode</u>	<u>Note</u>
<u>PROTOTYPE</u> :- 90CV			1	No Connection	C
			2	Cathode	
			3	No Connection	C
			4	Anode	
			5	No Connection	C
			6	Cathode	
			7	No Connection	C
			<u>DIMENSIONS</u> See page 3.		
			<u>PACKAGING</u> See K1005.		

RATING

			Note
Working Voltage (V)	100		A
Max. Voltage (V)	110		B
Max. Cathode Current (μA)	10		
Min. Sensitivity (μA/lumen)	13.5		

NOTES

- The working voltage is to be clearly and permanently marked on each cell.
- The maximum voltage is considered to be the voltage which will never be exceeded at any time when the cell is illuminated. It is NOT to be marked on the cell.
- No connection of any kind is to be made to these pins.

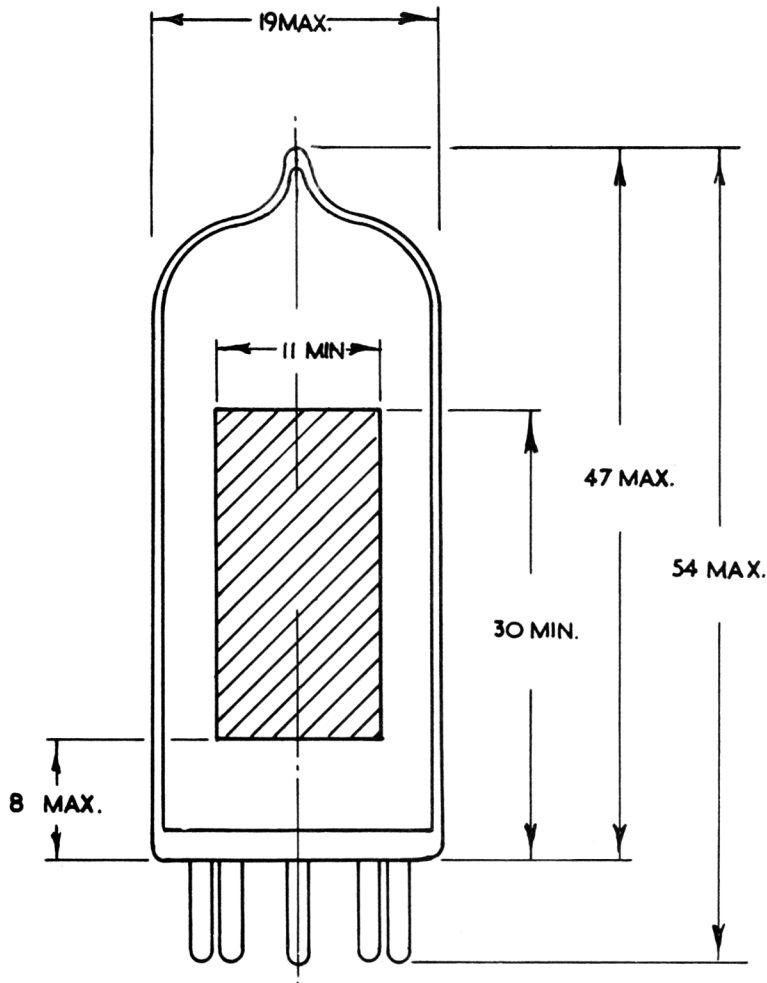
TESTS

To be performed in addition to those applicable in K1004.

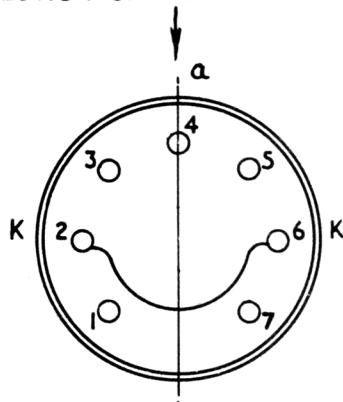
	Test Conditions		Test (See Note 3)	Limits		No. Tested	Notes
	Va (volts)	Light Flux (lumens)		Min.	Max.		
a	25	0.02	Sensitivity (μ A/lumen)	11.0	-	100%	1,2.
b	100	0.02	Sensitivity (μ A/lumen)	13.5	-	100%	1,2.
c	100	Nil	Dark Current (μ A)	-	0.05	100%	1,2.
d	110	0.02	There must be no uncontrolled breakdown.	-	-	100%	1,2, 3,4.
e	110	Nil	Dark Current (μ A)	-	0.05	100%	2,3.
f	120	Nil	Dark Current (μ A)	-	0.10	100%	2.

NOTES

1. Light Flux is to illuminate a Cathode Area 22 mm high by 11 mm wide, the centre of which is 19 mm from the sole.
2. Test is to be carried out with a resistance of 100,000 ohms \pm 5% connected in series with the anode circuit. All voltages in the test are measured across the cell and resistance in series.
3. Tests are to be carried out in the order given above and test 'e' is to follow immediately after observing test 'd'.
4. Observation of photo cell for breakdown should be of at least 10 secs. duration. Should the photocell exhibit any tendency to breakdown during this period, a further test of 2 mins. duration is to be made.



DIRECTION OF INCIDENT LIGHT.



NOTES:-
ALL DIMENSIONS IN MMS.
SCALE:-TWICE FULL SIZE