

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV2132 Issue 2. Dated 12.6.51. To be read in conjunction with K1004.	<u>SECURITY</u>	
	<u>Specn.</u> Unclassified	<u>Valve</u> Unclassified

<u>TYPE OF VALVE:-</u> Vacuum Photo-Electric Cell.			<u>MARKING</u>	
<u>CATHODE:-</u> Caesium Antimony.			See K1001/4. See Notes 'A' and 'B' below.	
<u>ANODE:-</u> Frame or Red Type.				
<u>ENVELOPE:-</u> Glass.				
<u>PROTOTYPE:-</u> 90AV.				
<u>RATING</u>			<u>BASE</u> B7G See K1001/AIV/D9.	
		Note	Pin	Electrode
Working Voltage (V)	100	A	1	Cathode
Max. Voltage (V)	110	B	2	Cathode
Max. Cathode Current (µA)	5		3	Anode
			4	Anode
			5	Anode
			6	Cathode
			7	Cathode
Min. Sensitivity (µA/lumen)	30	-	<u>DIMENSIONS</u> See page 3.	
<u>PACKAGING</u> See K1005.				

NOTES

A. The working voltage is to be clearly and permanently marked on each photocell.

B. The max. 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.

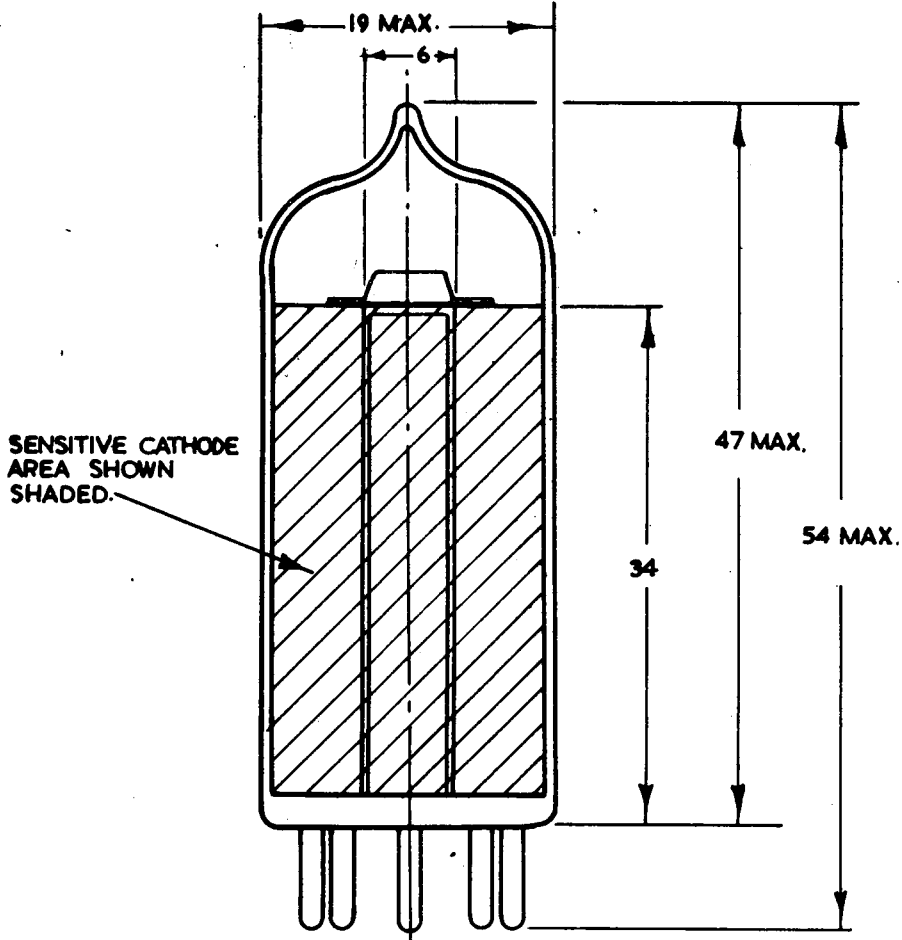
TESTS

To be performed in addition to those applicable in K1004.

	Test Conditions		Test (See Test)	Limits		No. Tested	Note
	Va (Volts)	Light Flux (lumens)		Min.	Max.		
a	50	0.04	Sensitivity ( $\mu\text{A}/\text{lumen}$ )	27.5	-	100%	1,2
b	100	0.04	Sensitivity ( $\mu\text{A}/\text{lumen}$ )	30.0	-	100%	1,2
c	100	0	Dark Current ( $\mu\text{A}$ )	-	0.05	100%	2
d	110	0.04	There must be no uncontrolled breakdown.	-	-	100%	1,2, 3,4
e	110	0	Dark Current ( $\mu\text{A}$ )	-	.1	100%	2,3
f	120	0	Dark Current ( $\mu\text{A}$ )	-	.1	100%	2

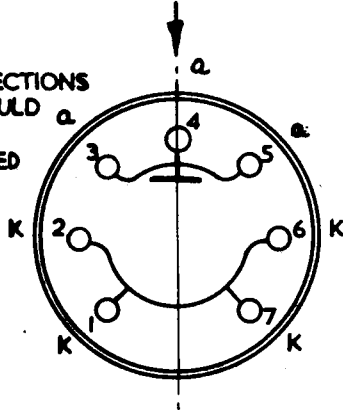
NOTES

1. Light Flux is to illuminate a Cathode Area through a circular aperture of 1.0 cm diameter, the centre of which is to be 23 mm above the seat of the cell.
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 the resistance in Series.
3. Tests are to be carried out in the order given above, and test 'e' to follow immediately after observing test 'd'.
4. Observation of photocell 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 minutes duration is to be made.



DIRECTION OF LIGHT.

EXTERNAL CONNECTIONS TO CATHODE SHOULD BE MADE TO PINS 1, 2, 6 & 7 CONNECTED TOGETHER.



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