VALVE ELECTRONIC **CV248**

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV248/Issue 7. Dated : 8. 4. 54. To be read in conjunction with K1001.	SECURITY Specification: Unclassified Valve: Unclassified

→Indicates a change

TYPE OF VALVE:- Gas filled Photo-Electric Cell. **CATHODE:-** Caesium on silver or approved alternative. **ANODE:-** Frame or Rod type. **ENVELOPE:-** Glass. **PROTOTYPE:-** CS16.	**MARKING** See K1001/4, also Notes 'A' and 'B' below. **BASE** B4 See K1001/AIV/D5.1.

RATING			Note
Working Voltage	(V)	140-160	A
Maximum Voltage	(V)	Wkg. volts + 10	B
Min. Sensitivity	(μA/lumen)	160	

Pin	Electrode
1	Anode
2	No connection
3	No connection
4	Cathode

DIMENSIONS AND CONNECTIONS

See Page 3.

NOTES

A. The working voltage is to be selected by the manufacturer, within the limits stated, and shall be such that the conditions of the tests on page 2 are fulfilled. It shall be a multiple of 5 and is to be clearly and permanently marked on each cell.

B. 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.

TESTS

To be performed in addition to those applicable in K1001

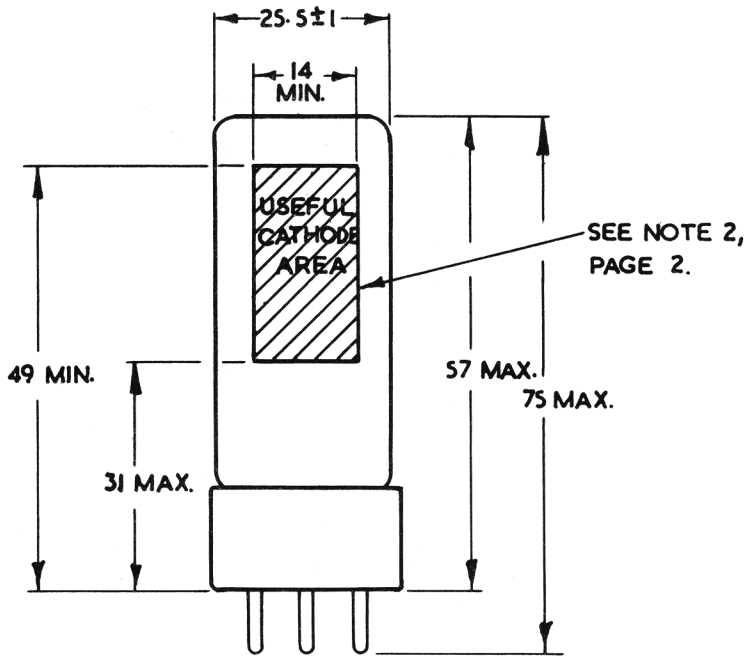
	Test Conditions		Test (See Note 4)	Limits		No. Tested	Note
	Va (volts)	Light Flux (lumens)		Min.	Max.		
a	x	0.02	Sensitivity (μA/lumen)	160	-	100%	1 2 3 5
b	x	Nil	Dark Current (μA)	-	0.1	100%	1,3
c	x + 10	0.02	There must be no uncontrolled breakdown	-	-	100%	1,2 3,4. 5
d	x + 10	Nil	Dark Current (μA)	-	0.2	100%	1,3 4.
e	x + 20	Nil	Dark Current (μA)	-	0.2	100%	1,3.

NOTES

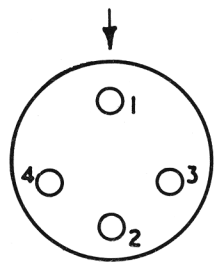
1. x = working voltage as defined in Note 'A', Page 1.
2. Light Flux is to illuminate a cathode area 16 mm high x 12 mm wide, the centre of which is 39 mm from the soleplate.
3. Test to be carried out with resistance of 100,000 ohms ± 5% connected in series with the anode circuit. All voltages in the test are measured across the cell and resistance in series.
4. Tests are to be carried out in the order given above and test 'd' is to follow immediately after observing test 'c'.

5 Issue One 1.

CV248



DIRECTION OF INCIDENT LIGHT.



ALL DIMENSIONS ARE IN MILLIMETRES.

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION AD/CV248

Issue 7 dated 8-4-54

AMENDMENT No. 1

Page 1. Under "RATING" add:-

			Note
Max. Peak Anode Current	(μA)	4	
Max. Mean Anode Current	(μA)	1	C

Under "NOTES" add:-

C. Where high stability is required a mean anode current of 0.1μA should not be exceeded.

Page 2 Under "TESTS" add:-

	Note
(a) - - - - - - - - -	5
(c) - - - - - - - - -	5

Under "NOTES" add:-

5. During tests (a) and (c) anode currents in excess of the maximum ratings may be taken for a period not exceeding 30 secs.

November 1960 ADMIRALTY SURFACE WEAPONS ESTABLISHMENT

N 46523

JAAS
9/60