VALVE ELECTRONIC **C.V.2270**

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV2270 Issue 2 Dated : 30. 1. 53. 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 Antimony.

ANODE:- Freme or Rod Type.

ENVELOPE:- Glass.

PROTOTYPE:- 90AG.

MARKING

See K1001/4.
See Notes 'A' and 'B' below

BASE
B7G

See K1001/AIV/D9

Pin	Electrode
1	Cathode
2	Cathode
3	Anode
4	Anode
5	Anode
6	Cathode
7	Cathode

RATING

			Note
Working Voltage	(V)	90	A
Max. Voltage	(V)	100	B
Max. Cathode Current	(μA)	2.5	
→ Min. Sensitivity	(μA/lumen)	75	C

DIMENSIONS

See page 3.

PACKAGING

See K1005

NOTES

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

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.

C. At Va = 90 volts.

C.V. 2270

TESTS

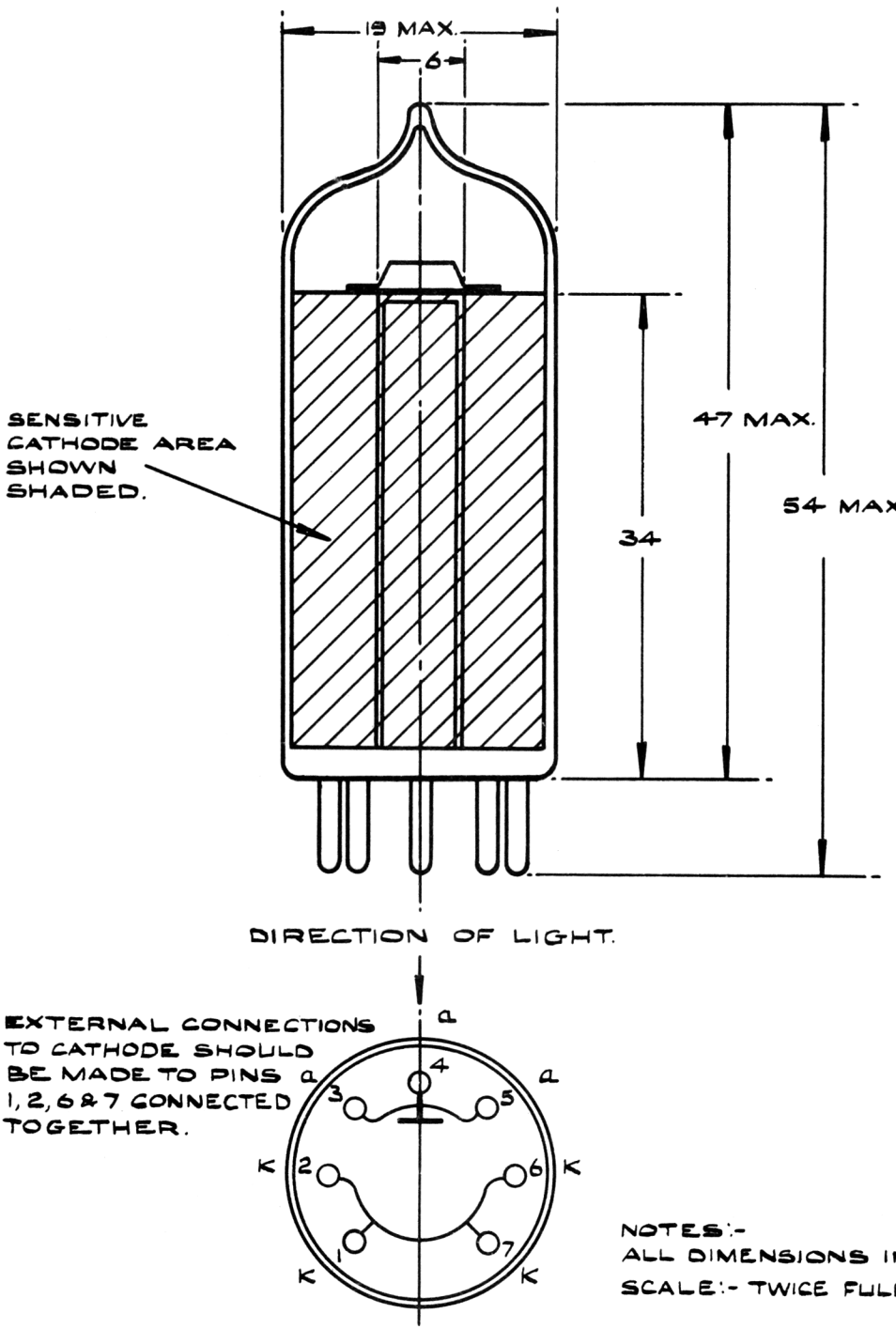
To be performed in addition to those applicable in K1001.

	Test Conditions		Test (See Test)	Limits		No. Tested	Note
	Va (Volts)	Light Flux (lumens)		Min.	Max.		
→ a	25	0.02	Sensitivity (μA/lumen)	21		100%	1,2
→ b	90	0.02	Sensitivity (μA/lumen)	75		100%	1,2
c			Gas Factor		7.0	100%	3
d	90	0	Dark Current (μA)		0.1	100%	2
e	100	0.02	There must be no uncontrolled breakdown.			100%	1,2, 4,5.
f	100	0	Dark Current (μA)		0.2	100%	2,4
g	110	0	Dark Current (μA)		0.2	100%	2

NOTES

1. Light flux is to illuminate a cathode area through a circular aperture of 1 cm diameter, the centre of which is to be 23 mms above the seat of the cell.
2. Test is to be carried out with a resistor of 0.1 megohm to 5% connected in series with the anode circuit. All voltages in the test are measured across the cell and the resistance in series.
3. Gas Factor is the ratio Iva = 90 : Iva = 25.
4. Tests are to be carried out in the order given above, and test (f) to follow after observing test (e).
5. 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 two minutes duration is to be made.

CV2270



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