ADMIRALTY SIGNAL ESTABLISHMENT

VALVE ELECTRONIC CV1472

Specification AD/CV1472/Issue 4. Dated : 4.12.47. To be read in conjunction with K1004.	SECURITY Specn. Restricted | Valve. Unclassified

→ indicates a change.

TYPE OF VALVE:- Gas Filled Photo-Electric Cell.

→ **CATHODE:-** Caesium on Silver, or approved alternative.

ENVELOPE:- Glass.

PROTOTYPE:- CMG25 (Short)

MARKING

See K1001/4.

BASES

B4

See K1001/AIV/D5.1

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

RATING		Note
Min. Extinguishing Voltage (V)	100	A
Working Voltage (V)	80-110	B
Min. Sensitivity (uA/lumen)	75	

DIMENSIONS

See K1004/D1.

Dimension	Min.	Max.
A mm	85.5	95.5
B mm	24	26
M mm	64	-
M' mm	-	36
N mm	13	-

PACKAGING

See K1005.

NOTE THE FOLLOWING GENERAL REQUIREMENTS.

A. The extinguishing voltage shall never be less than 20 V above the rated working voltage of the cell.

B. The working voltage, correct to the nearest 5 V, shall be marked on each individual cell, in such a position that it does not interfere with the incident light flux.

→ C. The spectral sensitivity shall correspond to the normal published characteristics of a caesium on silver cathode, or of an approved alternative cathode.

TESTS

To be performed in addition to those applicable in K1004

	Test Conditions	Test	Limits Min.	Limits Max.	No. Tested	Note
a	Suitable light flux to be incident on the cathode Va = x V. (i.e. working voltage).	Sensitivity (μA/lumen)	75	-	100%	1.2
b	Va = x V. Cell shielded from all sources of light.	Ia (μA)	-	0.1	100%	
c	Suitable light flux to be incident on the cathode. Va = x + 10 V.	After 30 secs read Ia (= y μA say) After further 60 secs Ia (μA)	-	y+10%	100%	1
d	Cell shielded from all sources of light Va = x + 10 V.	Ia (μA)		0.2	100%	
e	Cell shielded from all sources of light Increase Va to x + 20 V.	Ia (μA)		0.2	100%	

NOTES

1. A suitable light flux for testing is 0.04 lumen. See also K1004/2.4.
2. The working voltage 'x' (also referred to in Note B), is selected by the manufacturer, within the limits 80-110 V, such that the conditions of tests 'a', 'b', and 'c' are fulfilled.
3. All of the above tests will be carried out with a load resistance of not less than 0.1 megohm in the anode circuit.