ADMIRALTY SIGNAL ESTABLISHMENT

VALVE ELECTRONIC **CV1473**

Specification AD/CV1473/Issue 4. Dated 3.12.47. 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.

PROTOTYPES:- CMG22, GS16 (90 V).

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

MARKING

See K1001/4.

BASE

B4

See K1001/AIV/D5.1.

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

DIMENSIONS

See K1004/D1.

Dimension	Min.	Max.
A mm	66.5	72.5
B mm	24	26
M mm	43.5	-
M' mm	-	30.5
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 tube.

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.

D. An additional anode connection may be made to pin 2 if desired; designers are asked to allow for this optional connection.

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 cathode. Va = xV (i.e. working voltage).	Sensitivity (μA/lumen)	75	-	100%	1,2
	b	Va = xV. Cell shielded from all sources of light.	Ia (μA)	-	0.1	100%	1
→	c	Suitable light flux to be incident on the cathode Va = x+10V.	Ia after 30 secs. (=y μA say) Ia after further period of 60 secs. (μA)		y+10%	100%	
→	d	Shield cell from all sources of light. Va = x+10V.	Ia (μA)		0.2	100%	
→	e	Shield cell from all sources of light. Va = x+20V.	Ia (μA)		0.2	100%	

NOTES

→ 1. A suitable light flux for testing is 0.02 lumen. See also K1004/2.4.

2. The working voltage 'x' (also referred to in Notes A and 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.