

VALVE ELECTRONIC

CV405

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV405/Issue 5 Dated :- 9.8.48. To be read in conjunction with K1004.	<u>SECURITY</u>	
	Specn. Restricted	Valve Unclassified

→ Indicates a change

<u>TYPE OF VALVE:-</u> Gas-filled Photo-Electric Cell.		<u>MARKING</u>	
<u>CATHODE:-</u> Caesium on silver or approved alternative.		See K1001/4, also Note B.	
<u>ANODE:-</u> Frame or Rod Type.		<u>BASE</u>	
<u>ENVELOPE:-</u> Glass.		American Pee-Wee 3-pin	
<u>PROTOTYPE:-</u> GS47. - CE25.		See Page 3.	
<u>RATING</u>		Pin	Electrode
Working Voltage (V)	80-110	1	Anode
Maximum Voltage (V)	Working Volts +10	2	Cathode
Min. Sensitivity (μ a/lumen)	75	3	Blank
		<u>DIMENSIONS & CONNECTIONS</u>	
		See Page 3.	
		<u>PACKAGING</u>	
		See K1005.	

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 K1004

	Test Conditions		Test (See Note 5)	Limits		No. Tested	Note
	Va (volts)	Light Flux (lumens)		Min.	Max.		
a	x	0.02	Sensitivity ($\mu\text{A}/\text{lumen}$)	75	-	100%	1,2, 3 & 4
b	x	Nil	Dark Current (μA)	-	0.1	100%	1,3, & 4.
c	x + 10	0.02	There must be no uncontrolled discharge.	-	-	100%	1,2, 3 & 4
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, & 4.

NOTES.

1. x = working voltage as defined in Note 'A' Page 1.
2. Light Flux is to illuminate a cathode area 13 mm x 12 mm, the centre of which is ~~16 mm~~ 17.5 mm from the ~~top of the bulb.~~ Scaplar. (See drawing on Page 3.)
3. Test to be carried out with resistance of 100,000 ohms \pm 5% connected in series with the anode circuit.
4. All voltages in the above tests are measured across the cell and resistance in series.
5. Tests are to be carried out in the order given above and test 'd' is to follow immediately after observing test 'c'.

