

ADMIRALTY SIGNAL AND RADAR ESTABLISHMENT

ASWE

Specification AD/CV2328 Issue No. 2 Dated: 28. 8. 56. To be read in conjunction with K1001 B.S.448 and B.S.1409	<table border="1"> <tr> <th colspan="2"><u>SECURITY</u></th></tr> <tr> <td><u>Specification</u></td><td><u>Valve</u></td></tr> <tr> <td>Unclassified</td><td>Unclassified</td></tr> </table>	<u>SECURITY</u>		<u>Specification</u>	<u>Valve</u>	Unclassified	Unclassified
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→ Indicates a change

<u>TYPE OF VALVE:</u> Cathode Ray Tube <u>TYPE OF DEFLECTION:</u> Magnetic <u>TYPE OF FOCUS:</u> Magnetic <u>BULB:</u> Glass <u>SCREEN:</u> 008 with aluminium backing <u>SCREEN SIZE:</u> 12 inch <u>PROTOTYPES:</u> CV1869 and 12T03A	<u>MARKING</u> See K1001/4 See K1001/AV/12 M dimension BASE tv, applies B.S.448/B8-0																														
<u>RATING</u> (All limiting values are absolute) <table border="1"> <tr> <td>Heater Voltage (V)</td><td>6.3</td></tr> <tr> <td>Heater Current (A)</td><td>0.65</td></tr> <tr> <td>Max. First Anode Voltage (V)</td><td>850</td></tr> <tr> <td>Max. Second Anode Voltage (kV)</td><td>12</td></tr> <tr> <td>Max. Heater/Cathode Voltage (heater negative to cathode) (V)</td><td>150</td></tr> </table>	Heater Voltage (V)	6.3	Heater Current (A)	0.65	Max. First Anode Voltage (V)	850	Max. Second Anode Voltage (kV)	12	Max. Heater/Cathode Voltage (heater negative to cathode) (V)	150	<u>DIMENSIONS</u> See drawing on Page 4 <u>CONNECTIONS</u> <table border="1"> <thead> <tr> <th>Pin</th><th>Electrode</th></tr> </thead> <tbody> <tr><td>1</td><td>NC</td></tr> <tr><td>2</td><td>h</td></tr> <tr><td>3</td><td>a1</td></tr> <tr><td>4</td><td>NC</td></tr> <tr><td>5</td><td>g</td></tr> <tr><td>6</td><td>NC</td></tr> <tr><td>7</td><td>k</td></tr> <tr><td>8</td><td>h</td></tr> <tr><td>Side Contact</td><td>a2</td></tr> </tbody> </table> <u>SIDE CONTACT</u> See K1001/A1/D5.2	Pin	Electrode	1	NC	2	h	3	a1	4	NC	5	g	6	NC	7	k	8	h	Side Contact	a2
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NOTE

A. The fluoride screen shall not contain beryllium.

C.V.2328.

TESTS

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No. Tested	Note
	Vh (V)	Va2 (kV)	Va1 (V)	Vg (V)		Min.	Max.		
a	See K1001/5A.13				<u>Capacitances (pF)</u> i. Grid to all other electrodes. ii. Cathode to all other electrodes.	-	9	5% or 20	
b	6.3	-	-	-	Ih (A)	-	0.65	100%	
c	6.3	10	800	Adjust to cut off	<u>Cut Off</u> Negative Vg (V)	50	115	100%	
d	6.3	10	800	-	Change in Vg from value found in test 'c' (V)	-	30	100%	
Spot to be deflected off the usable screen area, or scanned. Adjust Vg to Ib = 50 $\mu$ A.									
e	6.3	10	800	Adjust	<u>Light Output and Beam Current (Ib)</u> Ib ( $\mu$ A)	-	7.5	100%	
Vg to be adjusted to give a light output of 0.15 candela with a raster 14 cms x 14 cms.									
f	6.3	10	800	-	Line Width (mm)	-	0.5	100%	
Focus adjusted to optimum. <u>Deflection</u> With a linear scan of 10 kc/s and a line length of 250 mm, the line width shall be measured at the centre of the trace. <u>Grid</u> The grid to be pulsed positively from out-off with amplitude equal to the value obtained in test 'd', the nominal value of pulse duration being 100 $\mu$ secs., and the repetition rate 25 p.p.s.									

TESTS

C.V.2328.

To be performed in addition to those applicable in K1001

	Test Conditions				Test	Limits		No. Tested	Note
	Vh (V)	Va2 (kV)	Va1 (V)	Vg (V)		Min.	Max.		
g	6.3	10	800	-115	<u>Grid Insulation</u> i. Leakage Current ( $\mu$ A) ii. Increase in Voltmeter reading	-	11.5 100%	100%	
	or Recommended Method: See K1001/5A.3.2 and with 10 Megohms resistor								
h	6.3	-	-	-	<u>Heater Cathode Leakage</u> Leakage Current ( $\mu$ A)	-	150	100%	
	See K1001/5A.3.3 150 Volts applied between heater and cathode.								
j	6.3	10	800	Any convenient value	<u>Useful Screen Area</u> Diameter (mm)	265	-	100%	
k	6.3	10	800	-do-	Deviation of spot from centre of screen. (mm)	-	12	100%	
	No focussing or deflecting fields to be present.								
l	6.3	10	800	Any convenient value	<u>Persistence</u> Time taken from cessation of excitation for light output to decay to 0.5% of initial value. (secs.)	120	-	10%	
	Vg to be adjusted to give a light output of 0.15 candela with a raster 14 cms x 14 cms.								

