

Specification MOS/CV2472 Issue 1. Dated 25th July, 1958 To be read in conjunction with K1001 and BS.448	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

—————> Indicates a change

<p><u>TYPE OF VALVE:-</u> Cathode Ray Tube</p> <p><u>TYPE OF DEFLECTION:-</u> Magnetic</p> <p><u>TYPE OF FOCUS:-</u> Magnetic</p> <p><u>SCREEN:-</u> G08. Aluminium backed</p> <p><u>PROTOTYPE:-</u> CV487</p>	<p style="text-align: center;"><u>MARKING</u></p> <p style="text-align: center;">See K1001/4</p> <hr/> <p style="text-align: center;"><u>BASE</u></p> <p style="text-align: center;">B7B</p>																																				
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<p style="text-align: center;"><u>TYPICAL OPERATING CONDITIONS</u></p> <p>a1 Voltage (V) 250</p> <p>a2 Voltage (kV) 5.5</p>	<p style="text-align: center;"><u>SIDE CONTACT</u></p> <p style="text-align: center;">CT1. See BS.448</p> <hr/> <p style="text-align: center;"><u>DIMENSIONS</u></p> <p style="text-align: center;">See drawing, Page 4</p>																																				
<p style="text-align: center;"><u>NOTES</u></p> <p>A. Heater negative with respect to cathode.</p> <p>B. The pins of the base shall be coated with grease, DTD577 and the base masked for transit using waxed fabric secured with adhesive tape.</p>																																					

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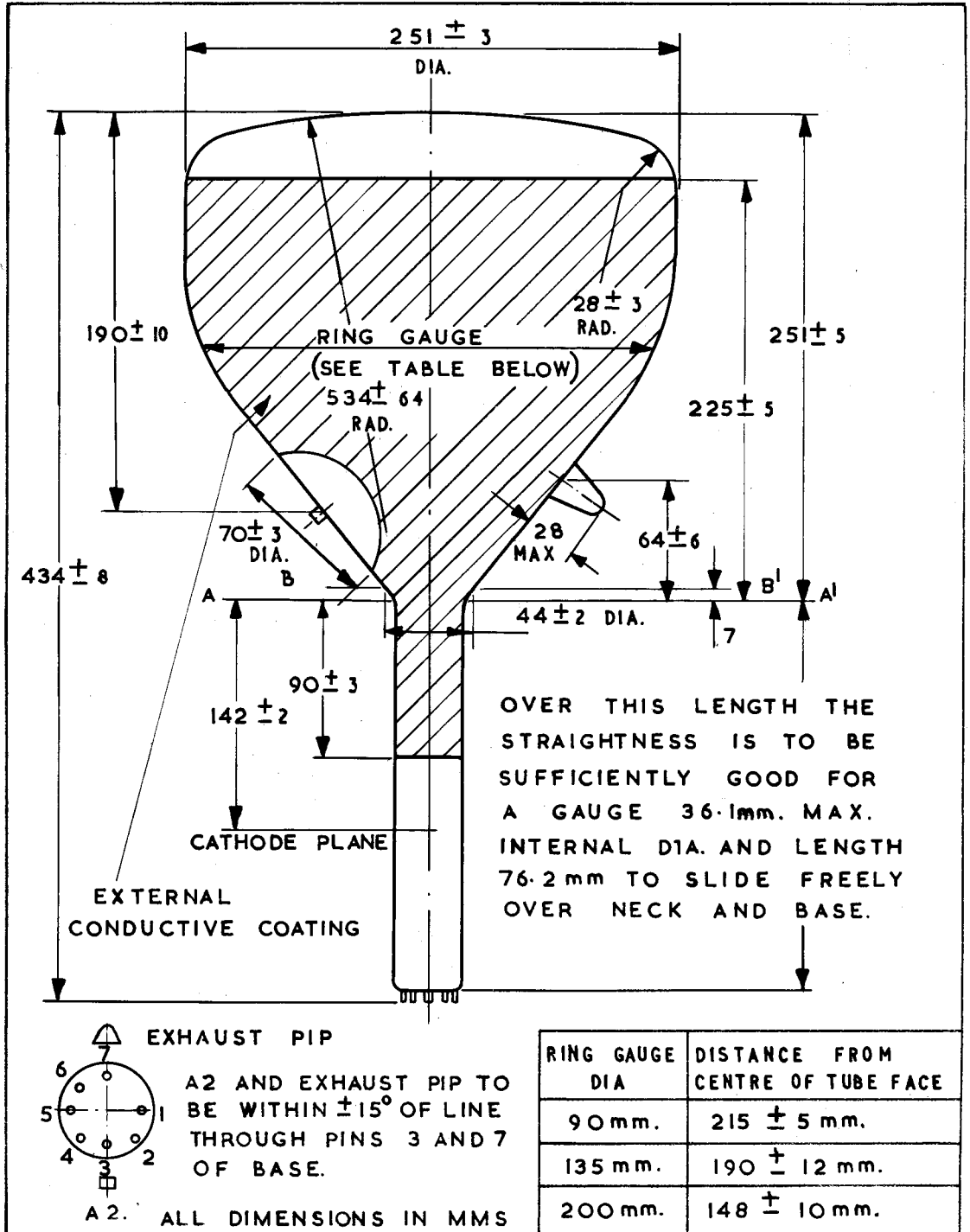
Clause	Test Conditions	Test	Limits		No. Tested
			Min.	Max.	
a	See K1001/5A.13	<u>Capacitances</u> (pf) 1. Grid to all other electrodes 2. Cathode to all other electrodes 3. a2. to external coating	- - 1000	15 10 -	2%(5) 2%(5) 100%
FOR ALL TESTS BELOW $V_h = 4.0$ VOLTS					
b		<u>Heater Current</u> (A)	0.84	1.1	100%
FOR ALL TESTS BELOW, EXCEPT CLAUSE "1", $V_{a1} = 250V$ and $V_{a2} = 5.5$ kV					
c	Adjust for optimum focus and V_g for cut-off See K1001/5A.10.	<u>Grid Base</u> $-V_g$ (V)	25	60	100%
d	Adjust V_g to give a light intensity of 0.5 candela, using a focussed raster of convenient size.	1. <u>Grid Drive</u> (Change in V_g from value found in test "c") (V) 2. The beam current shall increase continuously from cut-off to the light intensity of 0.5 candela.	-	20	100% 100%
e	Using a linear scan of 10 Kc/s and a line length of 200 mm. in two directions at right angles, adjust for optimum centre focus. <u>GRID</u> The grid shall be pulsed positively from cut-off with amplitude equal to the value obtained in test "d1.", the nominal values of pulse duration and recurrence rate being 100 μ s and 100 c/s respectively.	<u>Line Width at the centre of the trace</u> (mm)	-	0.5	100%
f	(i) $V_g = -60V$ <u>OR</u> (ii) See K1001/5A.3.2 Resistor 5 Megohm.	<u>Grid Insulation</u> (i) Leakage current. (uA) <u>OR</u> (ii) Increase in voltmeter reading		12 100%	100%
g	Adjust for optimum focus. Deflection to cover the useful screen area. See Note 2	<u>Useful Screen Area</u> Diameter. (mm)	225	-	100%

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Clause	Test Conditions	Test	Limits		No. Tested
			Min.	Max.	
h.	No focus or deflecting fields 1. Vg any convenient value. 2. Grid driven +ve from out-off with a pulse of amplitude as found in test "d.1" and of 100 uS duration at a repetition of 25 to 100 p.p.s.	1. Deviation of spot from the geometric centre of the screen (mm) - 10 100% 2. Unfocussed spot diameter (mm) - 19 100%			
j	Screen to be scanned with a linear raster of convenient size. No focussing field, Vg adjusted for a screen luminence of 2 foot lamberts. Excitation time 120 secs. ± 15 secs.	<u>Afterglow</u> Decay time to 0.014 foot lamberts (Secs)	16	60	10%(10)
k	Defocussed raster of any convenient luminance to cover the useful screen area. See note 3.	<u>Blemishes.</u> (Stones, Bubbles and Screen Defects). Above 1.5 mm. dia. 1.5 mm to 1.0 mm. dia. 1.0 mm to 0.5 mm. dia. Spacing between blemishes (mm)	20	None 4 20	100%
l	Tube to be subjected to the climatic conditions of K1001/10.1 for a period of 28 days.	The external coating shall show no signs of blistering or flaking			T.A.

NOTES

1. The centre of the focus coil shall be 100 mm. from the line AA'. (See drawing, Page 4).
2. The deflector coil length must not be less than 70 mm. and the coil centre not less than 40 mm. from the axis of BB' (See Drawing Page 4).
3. If two or more blemishes, including those between 0.5 mm. and 0.25 mm. are separated by a distance not greater than the largest blemish in the group, then the group of blemishes shall be considered as one blemish of dimension equal to the maximum overall dimension of the group.



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