

Specification MOS/CV2435 Issue 2 dated : - 25th January 1959. To be read in conjunction with K1001 and BS448	<u>Security</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

← Indicates a change

<u>TYPE OF VALVE:-</u> Cathode Ray Tube <u>TYPE OF DEFLECTION:-</u> Magnetic <u>TYPE OF FOCUS:-</u> Electrostatic <u>BULB:-</u> Glass, internally coated with conductive coating. <u>SCREEN:-</u> GG.4 <u>PROTOTYPE:-</u> VCRX 387		<u>Marking</u> See K1001/4	
		<u>Base</u> B8-0. BS.448	
		<u>Connections</u>	
<u>RATING</u>		<u>Pin</u>	<u>Electrode</u>
Heater Voltage (V)	4.0	1	Internal Connection
Heater Current (A)	1.0	2	a1
Max. First Anode Voltage (kV)	1.45	3	a2
Max. Third Anode Voltage (kV)	8.0	4	Internal Connection
<u>TYPICAL OPERATING CONDITIONS</u>		5	g
Third Anode Voltage (kV)	5.0	6	k
Second Anode Voltage (V)	850	7	h
First Anode Voltage (kV)	1.25	8	h
Working Beam Current (Peak) (uA)	250	Side Contact	a3
Working First Anode Current (uA)	500		
			<u>Side Contact</u> BS.448. CT.7
			<u>Dimensions</u> See Drawing Page 4

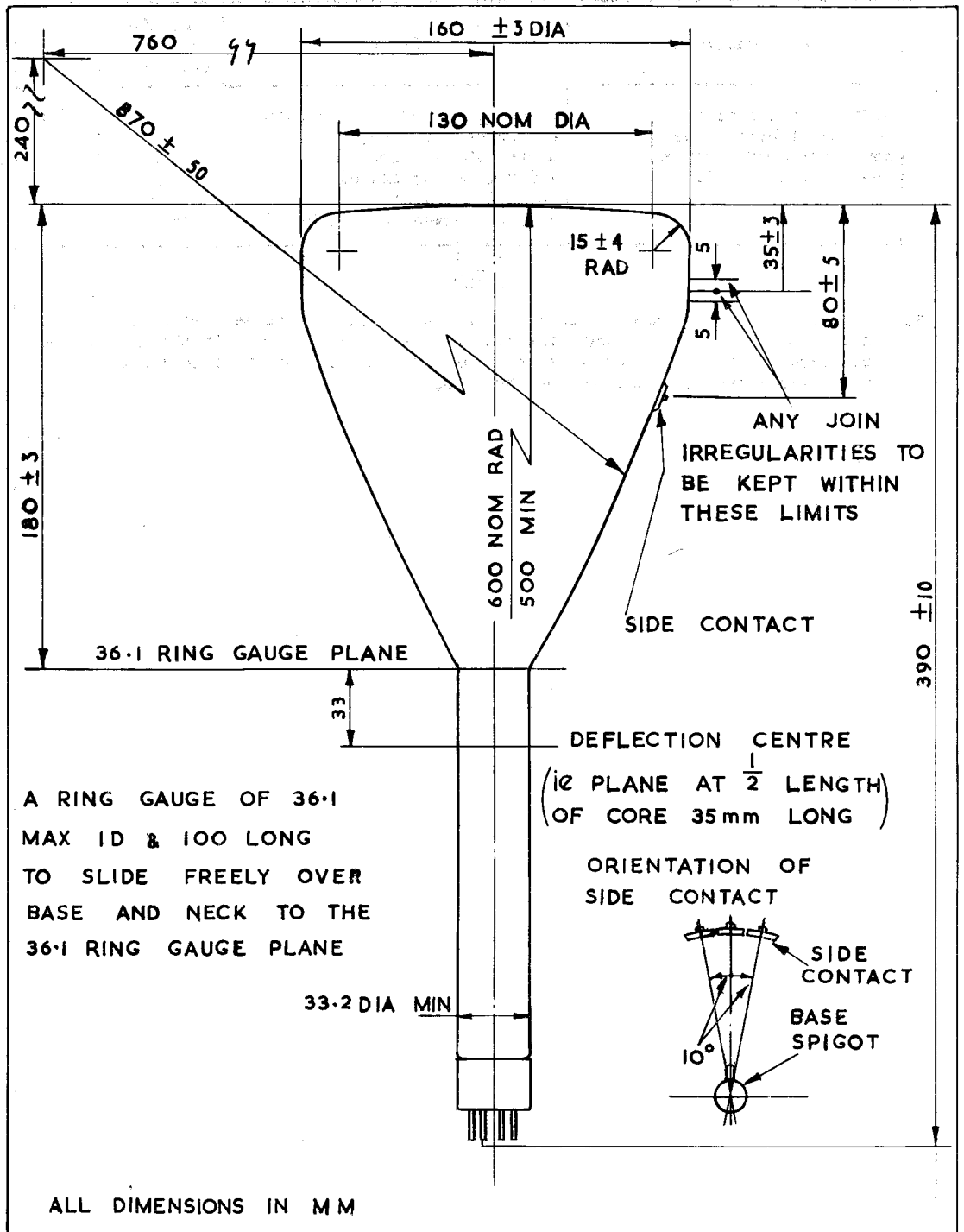
NOTES

- A. The first anode must always be at least 50V. positive to the second anode and the supply network must take account of variations in first anode current from zero to working value.

To be performed in addition to those applicable in K1001

Clause	Test Conditions	Tests	Limits		No. Tested
			Min.	Max.	
a	See K1001/5A/13	Capacitances (pf) Grid to all other electrodes		25	2%(5)
For all tests below $V_h = 4.0$ Volts					
b		Heater Current (A)	0.7	1.2	100%
For all tests below $V_{a1} = 1.25$ kV; $V_{a3} = 5.0$ kV					
c	Adjust V_{a2} for optimum focus and V_g for cut-off. See K1001/5A.10.	Grid Base - V_g (V)	40	80	100%
d	With a raster scan of convenient size adjust V_{a2} for optimum focus and V_g for a light intensity of 1.0 candela.	Light Intensity and Grid Drive 1. Change in V_g from that in test "c" (V) 2. The beam current shall increase continuously from zero to that required for 1.0 candela.	-	35	100% 100%
e	Adjust V_{a2} for optimum focus at the centre of a linear scan in two directions at right angles successively and a scan length of 135 mm and 100 μ s duration. Grid drive from cut-off with a 100 μ s pulse at 100 p.p.s. repetition and amplitude found in test "d1".	1. Line width measured at the centre of the trace (mm) 2. V_{a2} (V)	-	0.7 700	100% 100%
f	(i) $V_g = -80$ Volts OR (ii) See K1001/5A.3.2. Resistor 5 megohm	Grid Insulation (i) Leakage current (μ A) OR (ii) Increase in voltmeter reading. (%)	-	16 100	100%
g	Adjust V_{a2} for optimum focus and V_g any convenient value. No deflecting field.	Deviation of spot from the geometric centre of the screen. (mm)	-	10	100%
h	With deflection to cover the useful screen dia. using deflection coils positioned as shown in drawing Page 4, adjust V_{a2} for optimum focus with V_g as in test "d".	Useful Screen Area Diameter on the geometric centre of the screen (mm)	135	-	100%

Clause	Test Conditions	Tests	Limits		No. Tested
			Min.	Max.	
j	Defocussed raster of any convenient brightness to cover the useful screen area. See note 1.	<u>Blemishes.</u> (Stones, Bubbles and screen defects). Above 1.0 mm. dia. 1.0 mm. to 0.5 mm. dia. Below 0.5 mm. dia. ignore Spacing between blemishes (mm)	15	None 8	100%
<u>NOTES</u>					
1. If two or more blemishes including those below 0.5 mm. are separated by a distance not greater than the maximum dimension of 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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