MINISTRY OF SUPPLY, R.R.E.

VALVE ELECTRONIC CV2435

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

← Indicates a change

TYPE OF VALVE:- Cathode Ray Tube
TYPE OF DEFLECTION:- Magnetic
TYPE OF FOCUS:- Electrostatic
BULB:- Glass, internally coated with conductive coating.
SCREEN:- GG.4
PROTOTYPE:- VCRX 387

Marking

See K1001/4

Base

B8-0. BS.448

Connections

Pin	Electrode
1	Internal Connection
2	a1
3	a2
4	Internal Connection
5	g
6	k
7	h
8	h
Side Contact	a3

Side Contact

BS.448. CT.7

Dimensions

See Drawing Page 4

RATING			Note
Heater Voltage	(V)	4.0	
Heater Current	(A)	1.0	
Max. First Anode Voltage	(kV)	1.45	
Max. Third Anode Voltage	(kV)	8.0	
TYPICAL OPERATING CONDITIONS			
Third Anode Voltage	(kV)	5.0	
Second Anode Voltage	(V)	850	
First Anode Voltage	(kV)	1.25	A
Working Beam Current (Peak)	(uA)	250	
Working First Anode Current	(uA)	500	A

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 Min.	Limits Max.	No. Tested
a	See K1001/5A/13	Capacitances (pf) Grid to all other electrodes		25	2%(5)
	For all tests below Vh = 4.0 Volts				
b		Heater Current (A)	0.7	1.2	100%
	For all tests below Va1 = 1.25 kV; Va3 = 5.0 kV				
c	Adjust Va2 for optimum focus and Vg for cut-off. See K1001/5A.10.	Grid Base -Vg. (V)	40	80	100%
d	With a raster scan of convenient size adjust Va2 for optimum focus and Vg for a light intensity of 1.0 candela.	Light Intensity and Grid Drive 1. Change in Vg 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 Va2 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 us duration. Grid drive from cut-off with a 100 us 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. Va2 (V)	- 700	0.7 1000	100% 100%
f	(i) Vg = -80 Volts OR (ii) See K1001/5A.3.2. Resistor 5 megohm	Grid Insulation (i) Leakage current (uA) OR (ii) Increase in voltmeter reading. (%)	- -	16 100	100%
g	Adjust Va2 for optimum focus and Vg 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 Va2 for optimum focus with Vg as in test "d".	Useful Screen Area Diameter on the geometric centre of the screen (mm)	135	-	100%

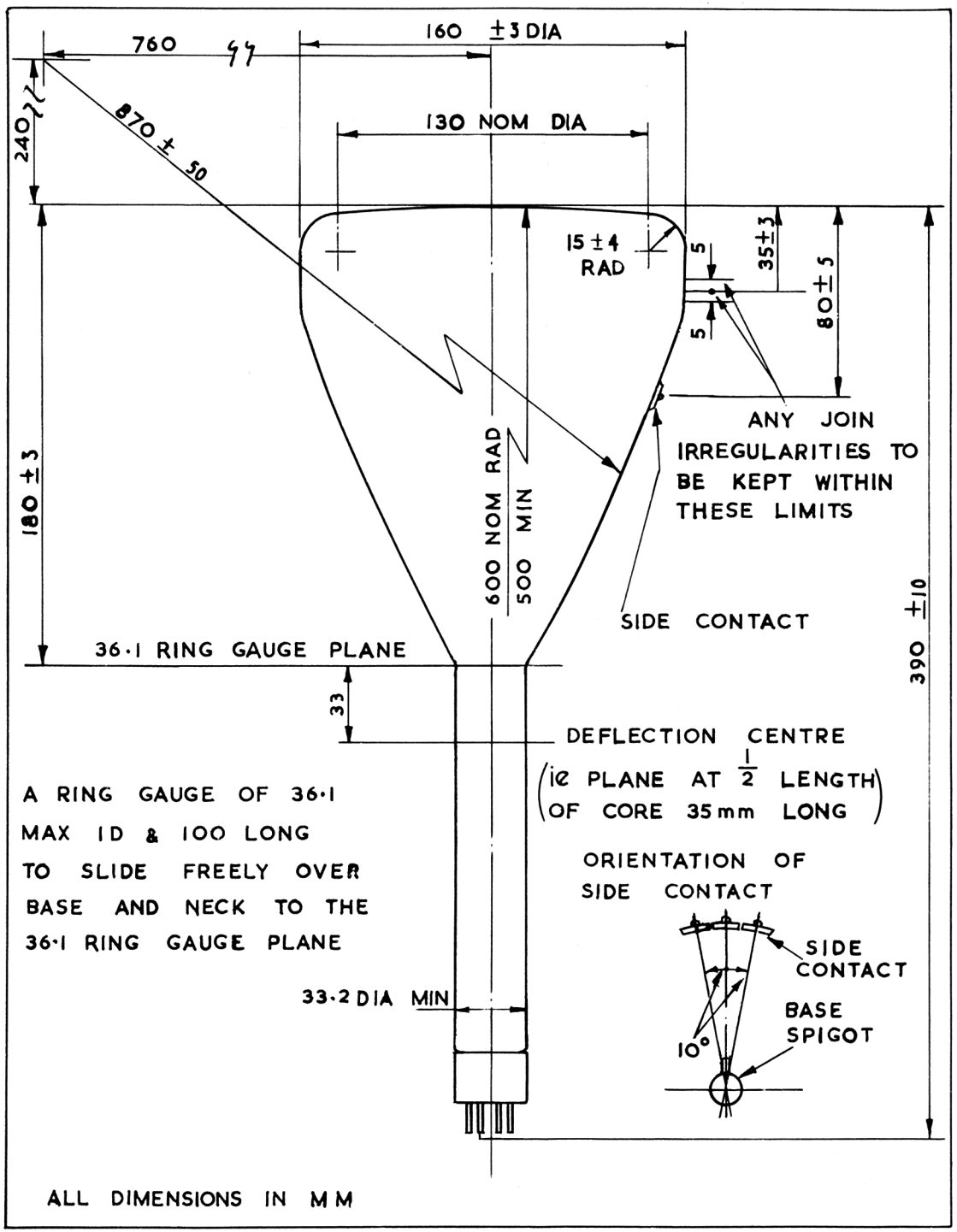
TESTS (Cont'd)

CV2435

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.	Blemishes. (Stones, Bubbles and screen defects).			100%
		Above 1.0 mm. dia.	None		
		1.0 mm. to 0.5 mm. dia.		8	
		Below 0.5 mm. dia. ignore			
		Spacing between blemishes (mm)	15		

NOTES

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.


760
160 ±3 DIA
240
870 ± 50
130 NOM DIA
15 ±4 RAD
5
35±3
80±5
5
ANY JOIN IRREGULARITIES TO BE KEPT WITHIN THESE LIMITS
180 ±3
600 NOM RAD
500 MIN
SIDE CONTACT
390 ±10
36·1 RING GAUGE PLANE
33
DEFLECTION CENTRE
(ie PLANE AT 1/2 LENGTH OF CORE 35mm LONG)
A RING GAUGE OF 36·1 MAX ID & 100 LONG TO SLIDE FREELY OVER BASE AND NECK TO THE 36·1 RING GAUGE PLANE
ORIENTATION OF SIDE CONTACT
SIDE CONTACT
BASE SPIGOT
10°
33·2 DIA MIN
ALL DIMENSIONS IN MM