MINISTRY OF SUPPLY/R.R.E. VALVE ELECTRONIC **CV2436-43**

Specification MOS/CV2436-CV2443 Issue 2, dated:- August, 1958. To be read in conjunction with K1001 and BS448	Security Specification: Unclassified Valve: Unclassified

← Indicates a change

TYPE OF VALVE:-	Monoscope
TYPE OF DEFLECTION:-	Magnetic
TYPE OF FOCUS	Electrostatic
BULB:-	Glass, internally and externally coated with a conductive coating.
PROTOTYPE:-	VCRX389
PATTERNS:-	See note A

MARKING
See K1001/4

BASE
B8-0
See BS 448

RATING		
Heater Voltage	(V)	4.0
Heater Current	(A)	1.0
Max. Va3	(kV)	7
Max. Va1	(kV)	1.4
Max. Va3 - sig. plate	(V)	200
Min. Va3 - sig. plate	(V)	50
Max. Beam current.	(uA)	250

CONNECTIONS

PIN	
1	Int. Connection
2	a_1
3	a_2
4	Int. Connection
5	g.
6	k.
7	h.
8	h.
Side contact End terminal	a_3 sig. plate

TYPICAL OPERATING CONDITIONS		
Va3	(kV)	5
Va2	(V)	830
Va1	(V)	1250
Sig. plate to a3	(V)	-100
Vg for cut off	(V)	-70
R_L	(kohms)	1 to 5
I_b	(uA)	5
Peak to Peak I sig.	(uA)	$\frac{Ib}{4}$ to $\frac{Ib}{2}$

SIDE CONTACT
CT7. See BS 448
or adapted to CT7 from CT8,
using adaptor on Page 6

END TERMINAL
OBA Stud

CAPACITANCES		
Max Cg - all	(pf)	20
Max Ck - all	(pf)	15
Max C sig. p. - all	(pf)	10

DIMENSIONS
See drawing Page 5

Notes A. CV2436 to CV2443 identical monoscopes except for the patterns illustrated on Page 4.

Z.18937.

To be performed in addition to those applicable in K1001

CLAUSE	Test Conditions	Test	Limits Min.	Limits Max.	No. Tested
a	See K1001/5A.13	Capacitances (pf) 1. Grid to all other electrodes 2. Cathode to all other electrodes 3. Sig. plate to all other electrodes		 20 15 10	5%(5)
	FOR ALL TESTS BELOW V_h = 4.0 VOLTS				
b		Heater Current (A)	0.8	1.2	100%
	FOR ALL TESTS BELOW Va1 = 1250V, Va3 = 5 kV, Va3 - sig. p. = 100V				
c	With a raster scan of convenient size, adjust Va2 for optimum focus and Vg for Ib = 0.1 uA.	Grid Base - Vg (V)	40	80	100%
d	As in "c" but Ib = 20 uA	1. Grid Drive Change in Vg from that in test c. (V) 2. Va2 (V)	 700	30 1000	 100% 100%
e	As in "c" but Ib = 5 uA and output coupled to a suitable amplifier and monitor, using deflection coils positioned as shown in drawing Page 5.	1. Definition No lines or marking other than the symbols on the photographic negative shall appear on the signal plate. Any blemishes on the signal plate shall not cause any ambiguity of signals or cause visible marks outside symbols greater than 1/6 of a symbol height in size. 2. Scan Area The scan shall cover the whole of the signal plate.			100% 100%
f	(i) Vg = - 80V or (ii) See K100/5A.3.2. Resistor 10 megohms	Grid Insulation (i) Leakage Current (uA) or (ii) Increase in voltmeter reading.		8 100%	100%
g	K1001/10.1	The external coating shall show no signs of blistering or flaking			T.A.

NOTES

Y. **Signal plate patterns**

The pattern shall be centred on the signal plate.

	Dimension of pattern	R.R.E. Ref. No.
CV2436	75 mm x 5.5 mm	R5595
CV2437	56.5 mm x 3.5 mm	R5596
CV2438	65 mm x ~~73~~ mm 63	R5597
CV2439	65.5 mm x 71.5 mm	R6128
CV2440	76.5 mm x 98.5 mm	R5600
CV2441	67.25 mm x 86.5 mm	R5711
CV2442	65 mm x 87 mm	R6059
CV2443	46 mm x 3.5 mm	R6060

In the manufacture of these signal plates, a "Contact Print" from a master negative issued by R.R.E. must be used and not scaled reproduction from the illustrations on page 4, because of possible size distortion.

Z. The vertical axis of the signal plate shall be within $\pm 10^{0}$ of the axis through the side contact and the axis of the tube. The top of the signal plate shall be on the same side of the tube as the side contact.

CV 2436

O U F H E IF M X

CV 2437

O U F H E IF M Z

CV 2438

O 18 17 16 15 14 13 12 11

O 28 27 26 25 24 23 22 21

O 48 47 46 45 44 43 42 41

O 58 57 56 55 54 53 52 51

O 78 77 76 75 74 73 72 71

O 88 87 86 85 84 83 82 81

O A8 A7 A6 A5 A4 A3 A2 A1

O B8 B7 B6 B5 B4 B3 B2 B1

CV 2439

O 18 17 16 15 14 13 12 11

O 28 27 26 25 24 23 22 21

O 38 37 36 35 34 33 32 31

O 48 47 46 45 44 43 42 41

O 58 57 56 55 54 53 52 51

O 78 77 76 75 74 73 72 71

O 88 87 86 85 84 83 82 81

O A8 A7 A6 A5 A4 A3 A2 A1

O B8 B7 B6 B5 B4 B3 B2 B1

CV 2440

O 19 18 17 16 15 14 13 12 11

O 29 28 27 26 25 24 23 22 21

O 39 38 37 36 35 34 33 32 31

O 49 48 47 46 45 44 43 42 41

O 59 58 57 56 55 54 53 52 51

O 69 68 67 66 65 64 63 62 61

CV 2441

O 19 18 17 16 15 14 13 12 11

O 29 28 27 26 25 24 23 22 21

O 39 38 37 36 35 34 33 32 31

O 49 48 47 46 45 44 43 42 41

O 59 58 57 56 55 54 53 52 51

O 69 68 67 66 65 64 63 62 61

CV 2442

O A8 A7 A6 A5 A4 A3 A2 A1

O B8 B7 B6 B5 B4 B3 B2 B1

O 18 17 16 15 14 13 12 11

O 28 27 26 25 24 23 22 21

O 38 37 36 35 34 33 32 31

O 48 47 46 45 44 43 42 41

O 58 57 56 55 54 53 52 51

O 68 67 66 65 64 63 62 61

O 78 77 76 75 74 73 72 71

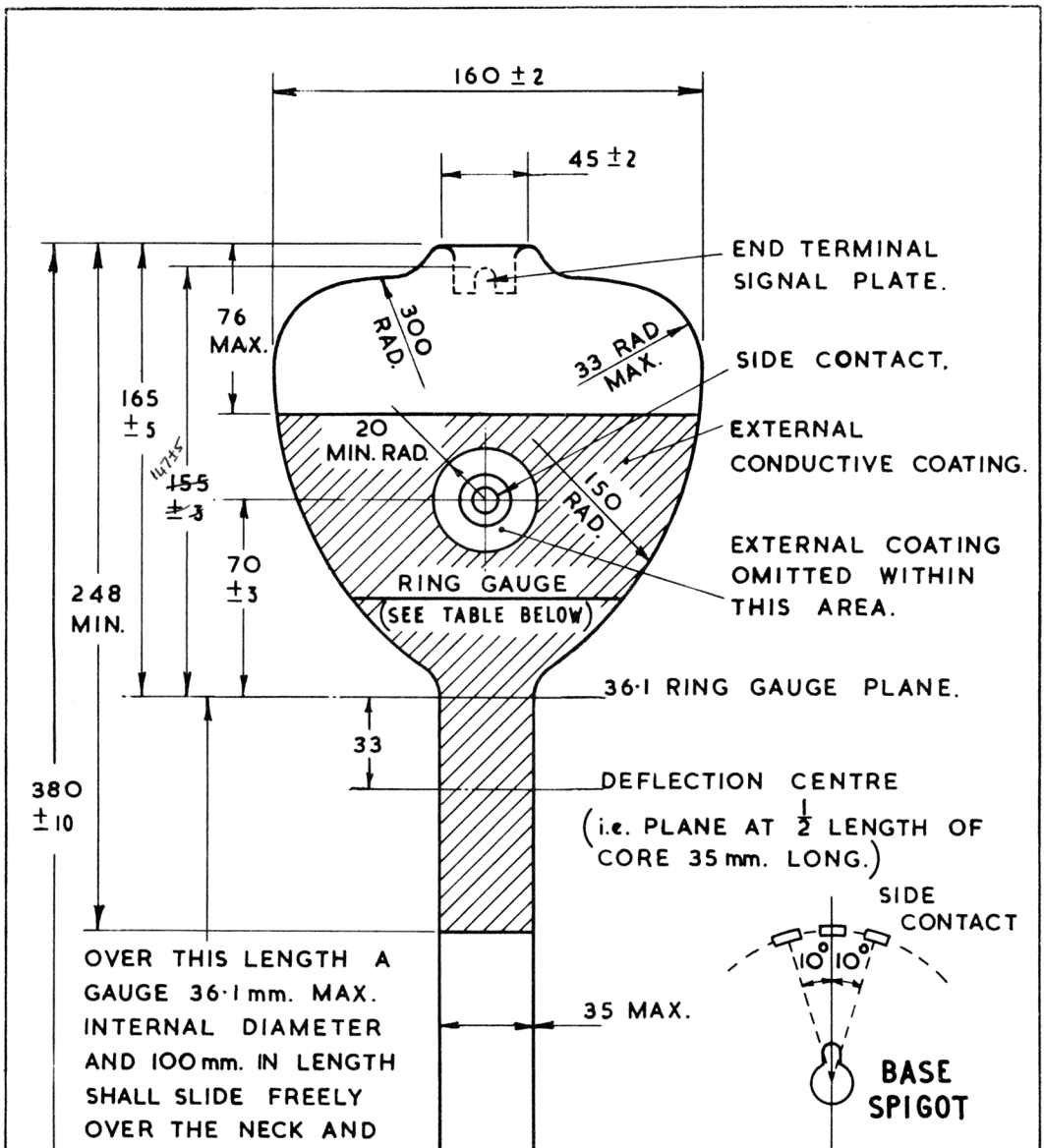
O 88 87 86 85 84 83 82 81

O 98 97 96 95 94 93 92 91

CV2443

O EB EA F Z U O

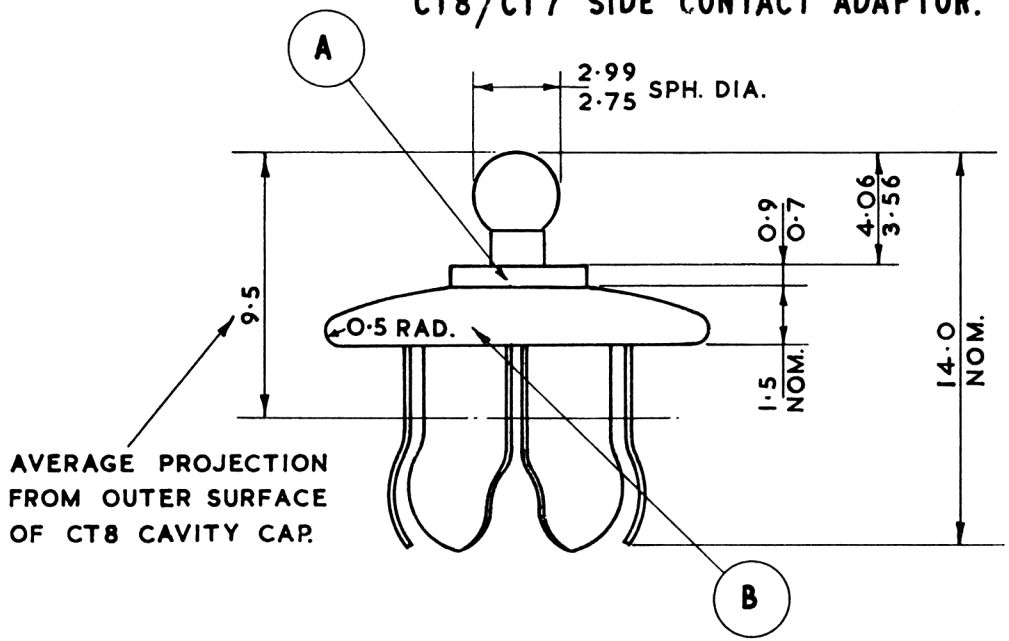
CV 2436-CV 2443

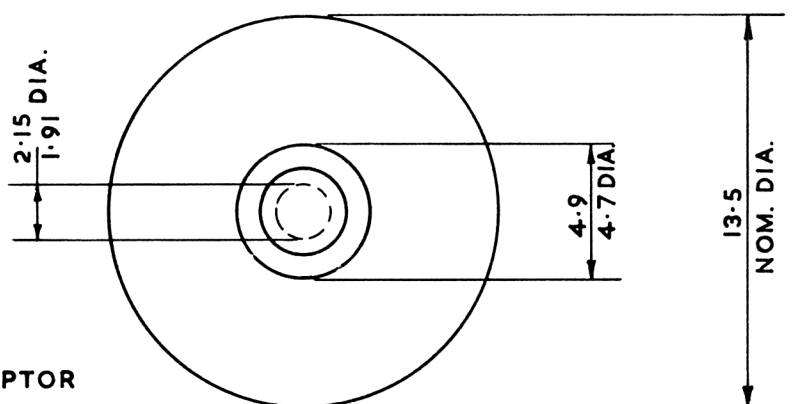


RING GAUGE DIA.	DISTANCE FROM 36·1mm. RING GAUGE PLANE.
72	153 ± 4 (FACE RING GAUGE)
150	85 ± 5
100	34 ± 5

ALL DIMENSIONS IN mm.

CT8/CT7 SIDE CONTACT ADAPTOR.





FINISH:— ADAPTOR IS SILVER PLATED

MATERIAL:— (A) BRASS ROD

(B) SPRING STEEL SHEET 0·37 THICK.

PART 'A' IS RIVETED TO PART 'B.'

SCALE 4:1

ALL DIMENSIONS IN mm.

ELECTRONIC VALVE SPECIFICATION

SPECIFICATION MOS/CV2436-43 ISSUE 2 DATED AUGUST, 1958

AMENDMENT No.1

Page 3 Note Y

Under "Dimension of Pattern", line 3:-

Amend	CV 2438	65mm x 73mm
to read	CV 2438	65mm x 63mm

R.R.E.

July, 1959
N.70910

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION MOS/CV2436-43

ISSUE 2 DATED AUGUST 1958

AMENDMENT No.2

Page 5. Amend:- Distance between the end terminal and 36.1 ring gauge plane to read 147 ± 5 instead of 155 ± 3.

February, 1960
N.16340

R.R.E.