VALVE ELECTRONIC CV2278

ADMIRALTY SIGNAL & RADAR ESTABLISHMENT

Specification AD/CV2278/Issue 2. Dated : 22.7.53. To be read in conjunction with K1001.	SECURITY	
	Specification	Valve
	Unclassified	Unclassified

TYPE OF DEFLECTION: Magnetic.

TYPE OF FOCUS: Magnetic.

BULB: Internally coated with conductive coating.

SCREEN: 008 (With Aluminium Backing).

PROTOTYPE: VCRX353.

RATING			Note
Heater Voltage	(V)	4.0	
Heater Current	(A)	1.0	
Maximum Anode Voltage	(kV)	5.0	

MARKING

See K1001/4.

BASE

IO

Pin	Electrode
1	No connection
2	Heater
3	Pin omitted
4	Pin omitted
5	Grid
6	Pin omitted
7	Heater
8	Cathode
Side Contact	Anode

Side Contact-Plug cap to conform to K1001/AI/D5.1.

NOTE

The gun assembly shall be sufficiently robust to withstand considerable mechanical shocks without suffering displacement.

Z.5106.R.

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions			Test	Limits		No. Tested
	Vh	Va(kV)	Vg		Min.	Max.	
a				Capacitance (pF) Grid to all other electrodes.	-	25	5% (5)
b	4.0	0	0	Ih (A)	-	1.2	100%
c	4.0	4.0	Adjusted	Line Width (mm)	-	0.5	100%
	Focus adjusted for optimum.			Deflection - With a linear scan, with a repetition frequency of 10 Kc/s. and a line length 180 mm, the line width will be measured at the centre of the trace. Grid - The grid will be pulsed positively from cut off with amplitude equal to the value obtained in test 'd' the nominal value of pulse duration and recurrence rate being 100 µsecs. and 100 c/secs. respectively.			
d	4.0	4.0	Adjusted	i. Vg	To be at least 1V negative to cathode		100%
	Vg adjusted to give a light output of 0.13 candles.			Amdt. 1. ii. Focus coil current (mA)	80	120	T.A.
e	4.0	4.0	Adjusted to cut off	i. Vg (V)	-30	-65	100%
				ii. Increase in negative value of Vg from value in 'd'.	-	30	100%

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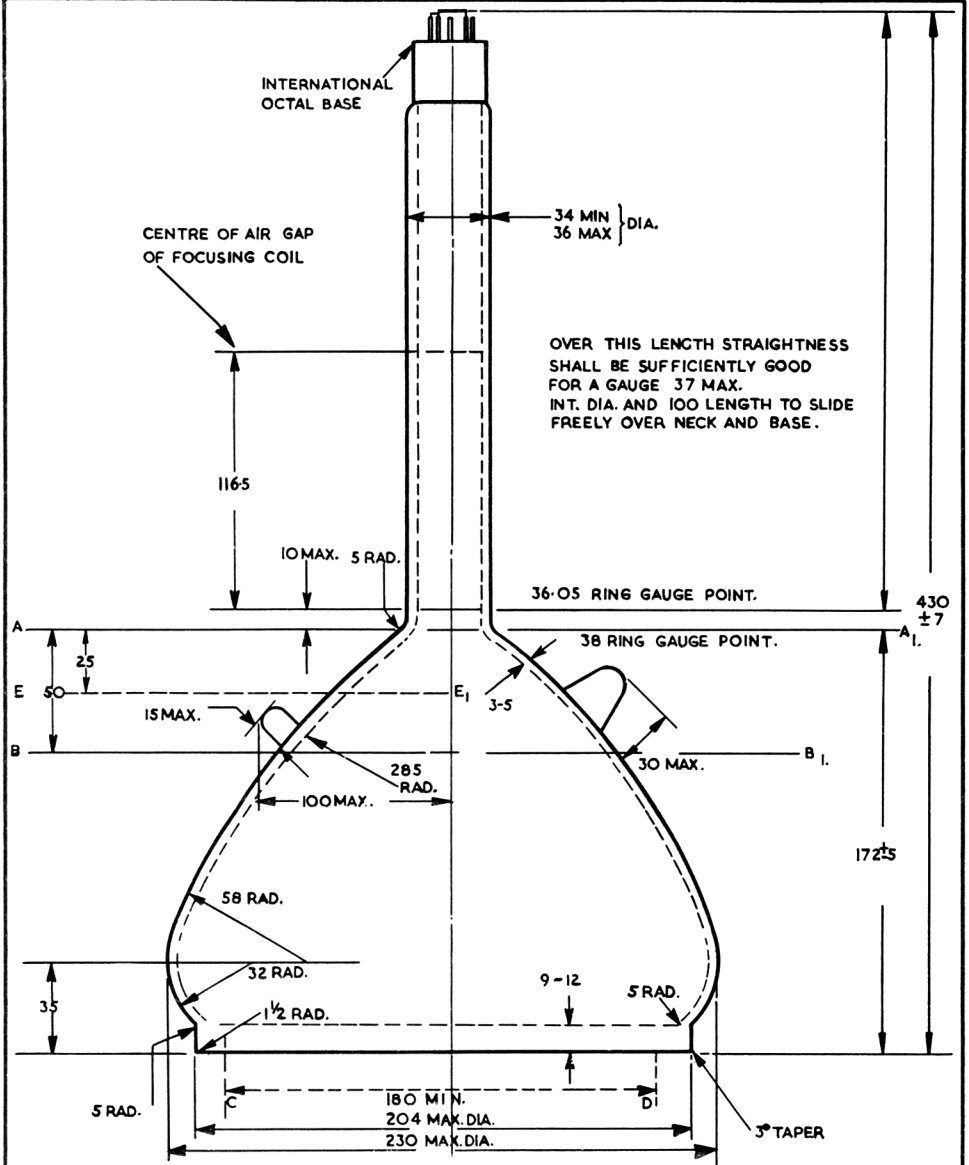
TESTS (Contd.)

	Test Conditions			Test	Limits		No. Tested
	Vh	Va(kV)	Vg		Min.	Max.	
f	4.0	4.0	-65	Grid Insulation			
	Resistor = 10 Megohms. See K1001/5A.3.2.			Leakage current (μA)	-	6.5	100%
				Increase in voltmeter reading.	-	100%	100%
g	4.0	4.0	Within working range	Useful Screen Area			
	Focus adjusted to optimum.			Dia. (mm)	180	-	100%
h	4.0	4.0	Within working range.	Deviation of spot from centre of screen. (mm)	-	10	100%
	No focussing coil energisation.						
j	4.0	4.0	-	Afterglow (secs).	8	-	10%
	Test to be done with Test Set 331 using a close raster of convenient size, and an N3 filter.						

NOTE

For the purpose of tests 'c', 'd', 'e', 'g' and 'j' the focussing fields required are to be obtained by means of an approved focus coil in the position shown on the drawing.



ALL DIMENSIONS ARE IN MILLIMETRES

NOTES

THE ANGLE BETWEEN PLANE THROUGH ANODE CAP OR PUMP STEM AND AXIS OF TUBE AND PLANE THROUGH BASE SPIGOT AND AXIS OF TUBE SHALL NOT EXCEED 15°
ANY PROTUBERANCE DUE TO SEALING OFF SHALL LIE BETWEEN A A' AND B B' AND TO ANODE CONNECTION SHALL LIE BETWEEN B B' AND E E'
BETWEEN C&D THE FRONT FACE SHALL NOT DEPART FROM FLATNESS BY MORE THAN 1 1/2 MM.
THE FRONT FACE SHALL BE OF UNIFORM THICKNESS TO WITHIN 1 1/2 M.
THE FRONT FACE SHALL BE POLISHED TO OPTICAL QUALITY.

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION AD/CV 2278 ISSUE NO.2 DATED 22.7.53

AMENDMENT NO. 1.

Page 2 Test Clause d(ii).

Focus Coil Current. Delete this test.

T.V.C. for
A.S.W.E.

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14/2/64