## CV2242 VALVE ELECTRONIC SECURITY

Specification MOS/CV2242. Issue 2 Dated 4th November, 1957. Specification Valve To be read in conjunction with BS1409 and K1001 UNCLASSIFIED UNCLASSIFIED excluding clauses 1.2. 5.2. 5.3 and 7.2. -> indicates a change TYPE OF VALVE - Velocity Modulated Oscillator with flexible leads. MARKING CATHODE - Indirectly - heated As Klool/4 but with Type ENVELOPE - Glass - urmetallised Approval letter omitted. PROTOTYPE - VX 7052 RATINGS CONNECTIONS See drawing on page 4 6.3 1.0 1.1 Heater Voltage Heater Current Max. Resonator Voltage DIMENSIONS See drawing on page 4 Max. Reflector Voltage -500 1.2 Power Output Frequency Range 5250 Dimensions (mm) Min. Max. to 5510 60.31 50.81 Frequency Variation to half В 35•027 (Mc/s) (W) 24.773 15 70 power points C 22.3 Max. Resonator Dissipation D 22.2 Min. Air Flow (cuft /min) 73.03 53.98. 8.47 J S Modulation Peak AC Voltage 200 50.8 T 7.47

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To be performed in addition to those applicable in KlOOL.

	Test Conditions							Limits		No.	
1		(V)	Frequency	V <sub>Ref</sub> (v)	V <sub>Res</sub> (v)	Mod Pk AC Volts	Test	Min.	Max.	Tested	Note
l		6.3	•	0	0	0	Ih (A)	0.93	1.07	100%	1
	р	6.0	5360 (5.6cms)	Adjust V <sub>Ref1</sub>	Adjust V <sub>Resl</sub>	0	$egin{array}{ll} egin{array}{ll} egi$	- -400	64 -500	100%	3,4, & 5
→							V <sub>Resl</sub> (V) Power Output (W)		1100		
<b>→</b>	٥	6.0	5360	Set VResl as in Test (b)	Set Reslas in Test (b)	100 (200V pk to pk)	Bandwidth (Mc/s) to half power	15	•	100%	4 & 5
	đ	6.0	5360	As in Test (b)	As in Test (b)	10 (20Vpk to pk)	Frequency (Mc/s) Variation	4	-		4, 5 & 6
<b>→</b>	•	6.0	5250 to 5440	As in Test (b)	As in Test (b)	100	Oscillation should be detected over range		,		4, 5 & 6
<b>→</b>	7	6.0	5440 (5•55cms)	Adjust V <sub>Ref2</sub>	Adjust V <sub>Res2</sub>	0	I <sub>Res</sub> (mA) V <sub>Res2</sub> (V) V <sub>Res2</sub> Power Output(mW)	- - 40	34 -100 		4 & 5
1	g	6.0	5400	Set as in Test (1)	Set as in Test (1)	50 (100V pk to pk)	Bendwidth (Mc/s) to half power	20	-		4 & 5
<b>→</b>	h						Deleted				
->	j	6.0	5310 to 5500	Set as in Test (f)	Set as in Test (f)	50	Oscillation shall be detected over range				4 & 5

## NOTES

The valve shall be pre-heated for not less than 1 min.

The valve shall be operated under the conditions specified in Test (b) for 1 min.

before reflector current is recorded.

In Test (b) the maximum value of the resonator current, I Res shall be increased above 64 mA specified when the resonator voltage is less than 1100 volts, according to the following table:-3.

Resonator Volts	Resonator Current (mA)
1100	64
1050	67
1000	70

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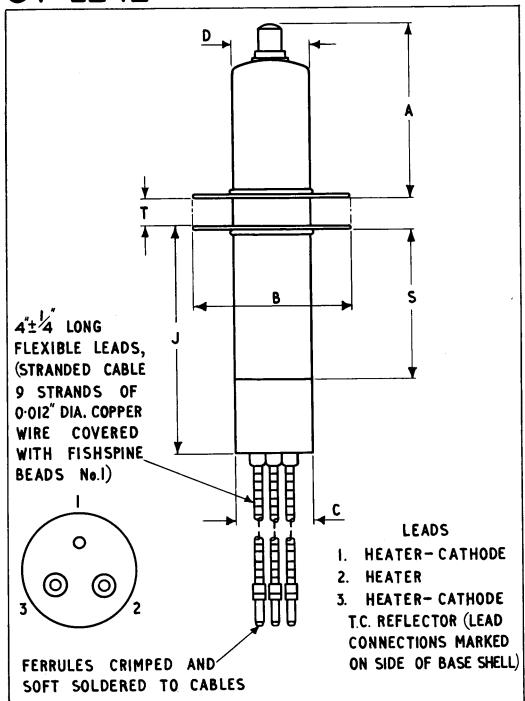
## NOTES Cont'd.

Tests (b), (c), (d) and (e) must be carried out in approved Test Set.
 The valve shall be forced air-cooled in all tests, except Test (a) with a minimum air-flow of 7 cu.ft/min.

6. The frequency variation shall be measured about a DC reflector voltage mid-way between the DC reflector voltages corresponding to the half-power points. This point may be estimated visually.

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## CV 2242



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