

SPECIFICATION L.OS/CV 2221/ISSUE 2.

AMENDMENT NO. 1.

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Amend the dimension from the valve disc to the top of the valve

from 12.8 mm	to	12.55 mm max.
11.1		11.1 mm min.

September 1952.

T.V.C. Office.
(for RRDE)

Z.4108.R.

Specification MOS/CV2221/Issue 2. Dated March 20, 1952. To be read in conjunction with K1001	<u>SECURITY</u>	
	<u>Specification</u> Unclassified	<u>Valve</u> Unclassified

<u>TYPE OF VALVE:-</u> Velocity modulated magnetically focussed local oscillator. <u>CATHODE:-</u> Indirectly heated. <u>ENVELOPE:-</u> Copper-glass <u>PROTOTYPE:-</u> VX7057	<u>MARKING</u> See K1001/4
	<u>PACKAGING</u> See K1005

<u>RATING</u>		<u>BASE</u> B7G	
Heater voltage (V)	6.3	Pin	Electrode
Heater current (A)	0.3		
Nominal tuning range (cms)	7.5-11.5		
Max. dissipation anode and resonator (W)	15	1	Grid 1
Anode voltage (V)	150-420	2	Cathode
Resonator voltage (V)	140-400	3	Heater
Max. screen voltage (V)	400	4	Heater
Max. resonator dissipation (W)	8	5	Anode
Max. cathode current (mA)	65	6	Resonator
Max. screen dissipation (W)	1.5	7	Grid 2
		<u>DIMENSIONS</u> See page 3	

NOTES

- A. Anode should be approximately 20 volts positive to resonator when low noise output is required.
- B. Screen volts should not exceed resonator volts by more than 50V.
- C. A permanent magnet is used to focus the electron beam and is orientated so that maximum current flows to the anode. Locating holes are provided so that the magnetic alignment position is the same for all valves. The magnet should have a uniform field strength of approximately 1000 oersteds. Jessop magnets type 9501 and 10512 are recommended.

To be performed in addition to those applicable in K1001

Test Conditions							Test	Limits		No. Tested
V_h (V)	V_{g1} (V)	V_a (V)	V_{g2} (V)	V_{res} (V)	I_o (mA)	Min.		Max.		
a	6.3	-	-	-	-	-	I_h (A)	0.27	0.33	100%
b	6.0	-40	Set at V_{r1}	Adjust (Note 2)	Adjust	47	(1) Power Output (mW) (2) Resonator voltage (V_{r1}) (V)	500 295	 335	100%
c	6.0	-40	Set at V_{r2}	Adjust (Note 3)	Adjust	65	(1) Power output (mW) (2) Resonator voltage (V_{r2}) (V)	500 170	 210	100%
d	6.0	-40	Set at V_{r3}	Adjust (Note 4)	Adjust	41	Oscillation shall be detected. Resonator voltage (V_{r3}) (V)	 345	 385	100%
e	6.6	-200	235- 245	150	225	-	Reverse I_g (uA)	-	30	100%
f	6.6	-40	235- 245	Adjust	225	65	I_{g2} (mA) V_{g2} (V)	 80	6.0 210	100%

NOTES

1. Tests b, c and d shall be carried out in an approved test set.
2. V_{g2} is adjusted to give $I_o = 47$ mA with oscillation at 7.9 cms.
3. V_{g2} is adjusted to give $I_o = 65$ mA with oscillation at 11.0 cm.
4. V_{g2} is adjusted to give $I_o = 41$ mA with oscillation at 7.5 cm.

