ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION MOS(A)/CV4030 ISSUE 3 DATED 16.6.55

AMENDMENT NO.1

Page 2 Group A.

Below the Noise Output test insert "Voltage Jumps" test as follows:-

K1001	TEST	TEST CONDITIONS	AQL. %	INSP. LEVEL	SYM-BOL.	LIMITS MIN.	LIMITS MAX.	UNITS
	Voltage Jumps	Ia varied from 60mA to 5mA and back. Time of sweeps not to exceed 1mA per second. Notes 2, 3 and 4.	-	100%	Va	-	250	mVpk.

May 1963

T.V.C. for
R.R.E.

(163732)

MINISTRY OF SUPPLY - DLRD(A)/RRE(South) VALVE ELECTRONIC **CV4030**

Specification M03(A)/CV4030 Issue 3 Dated 16. 6. 55 To be read in conjunction with K1001	SECURITY Specification: UNCLASSIFIED Valve: UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Reliable Voltage Stabiliser with flexible leads. CATHODE - Cold ENVELOPE - Glass - Unmetallised PROTOTYPE - CV434	MARKING See K1001/4

RATING

			Note
Max. Striking Voltage	(V)	115	
Nom. Operating Voltage	(V)	75	
Max. Anode Current	(mA)	60	
Max. Shock (short duration)	(g)	500	
Max. Acceleration (continuous operation)	(g)	2.5	

BASE

B8G/F

CONNECTIONS

Lead	Electrode
1	No connection
2	Anode
3	Priming Anode
4	No connection
5	No connection
6	No connection
7	No connection
8	Cathode

DIMENSIONS

See Drawing on Page 4

MOUNTING POSITION

Any

NOTE

A. All limiting values are absolute.

To be performed in addition to those applicable in K1001

K1001	Test	Test Conditions	AQL %	Insp. Level	Symbol	Limits Min	Limits Max	Units
11.1 7.1	Vibration Glass Strain	No voltages No voltages	2.5	100% I				
	GROUP A							
	Striking Voltage	Note 1		100%	Vs	-	115	V
	Transfer Voltage	Note 2		100%	Vt	-	90	V
	Maintaining Voltage	Notes 2 and 3 Ia = 30mA		100%	Vm	70	80	V
→	Regulation (1)	Ia changed from 5mA to 60mA		100%	Vr	-	6.5	V
→	Regulation (2)	Ia changed from 5mA to 30mA		100%	Vr	-	3.5	V
	Leakage Current (1)	V (anode + primer to cathode) = 50V		100%	I	-	10	μA
	Leakage Current (2)	V (primer to anode) = 50V		100%	I	-	10	μA
	Noise Output VOLTAGE JUMPS	Notes 2, 3 and 4. On Amendment 7/01		100%	Va AC	-	10	mV r.m.s.
	GROUP B							
5.12	Lead Fragility	No voltages	6.5	IA				
	GROUP C	Combined AQL	6.5					
11.2	Resonance Search	Note 4 Ia = 30mA Frequency = 25-500c/s	2.5	IA	Va AC f	- 200	25 -	mV r.m.s. c/s
11.3	Fatigue	Acceleration = 5g Duration = 3 x 23 hrs		IA				
	Post Fatigue Tests							
	Striking Voltage	Note 1	2.5		Vs	-	115	V
	Maintaining Voltage	Notes 2 and 3 Ia = 30mA	2.5		Vm	70	80	V
11.4	Shock	Hammer angle = 30° No voltages		IA				
	Post Shock Tests							
	Striking Voltage	Note 1	2.5		Vs	-	115	V
	Maintaining Voltage	Notes 2 and 3 Ia = 30mA	2.5		Vm	70	80	V

K1001	Test	Test Conditions	AQL %	Insp. Level	Sym-bol	Limits Min	Limits Max	Units
	GROUP D							
AVI /5	Life Test	Notes 2 and 3 Ia = 30mA		IA				
AVI /5.3	Intermittent Life Test	Notes 2 and 3 Ia = 30mA						
	Life Test End-point (500 hours)		6.5					
AVI /5.6	Inoperatives		2.5					
	Striking Voltage	Note 1	2.5		Vs	-	115	V
	Transfer Voltage	Note 2	2.5		Vt	-	90	V
	Maintaining Voltage	Notes 2 and 3 Ia = 30mA	2.5		Vm	68	83	V
	Regulation (1)	Ia changed from 5mA to 60mA	2.5		Vr	-	7.0	V
	Regulation (2)	Ia changed from 5mA to 30mA	2.5		Vr	-	4.0	V
	Leakage Current (1)	V (anode + primer to cathode) = 50V	2.5		I	-	15	μA
	Leakage Current (2)	V (primer to anode) = 50V	2.5		I	-	15	μA
	Noise Output	Notes 2, 3 and 4.	4.0		Va AC	-	15	mV r.m.s.
	GROUP E							
AIX /2.5 AVI /5.6	Electrical retest after 28-day holding period							
	Inoperatives		0.5	100%				
	Striking Voltage		0.5	100%	Vs	-	120	V

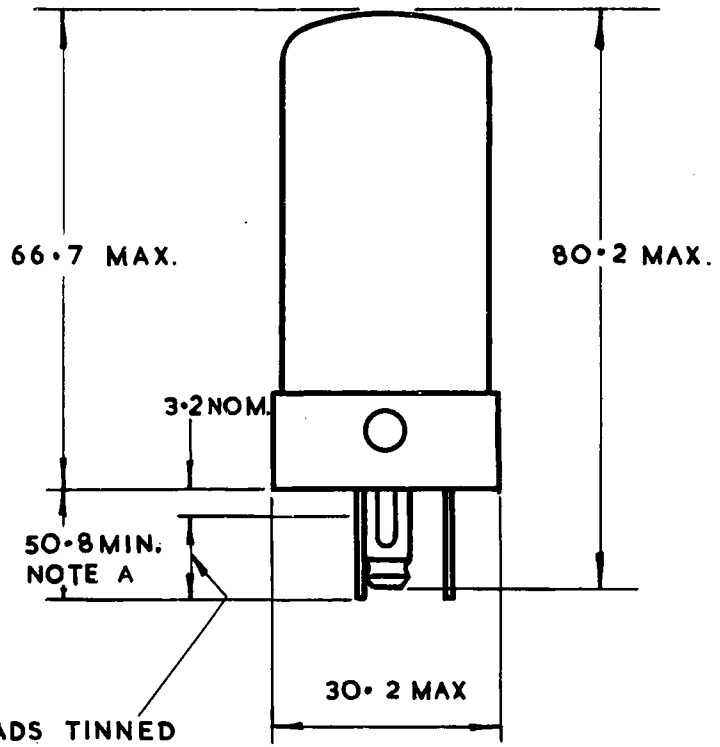
NOTES

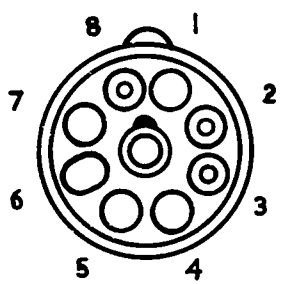
1. A DC voltage shall be applied between the priming anode (positive) and the cathode, with the main anode floating. The voltage shall be increased steadily until the valve strikes. from an initial value of not more than 65V and at a rate not exceeding 25V/sec.

2. 115V DC, having not more than a 0.5% ripple content shall be applied to the priming anode through a limiting resistance of 100k. A DC voltage shall be applied to the main anode and shall be increased steadily until transfer of conduction to the main anode occurs, at a rate not exceeding 25V/sec, and from an initial value of not more than 65V.

3. A limiting resistance of at least 5000 ohms shall be connected between the supply voltage and the main anode.

4. A calibrated detector, having substantially uniform response over the frequency range 50-5000 c/s shall be connected between anode and cathode. At no point in the range of cathode current (60-5mA) shall the noise input voltage exceed the specified limit.





NOTE A. LEADS SHALL BE FLEXIBLE 25-27 S.W.G TINNED COPPER WIRE

ALL DIMENSIONS IN MILLIMETRES.