MINISTRY OF SUPPLY (S.R.D.E.)

VALVE ELECTRONIC CV2361

Specification MOS/CV2361 Issue 1 Dated:- 12.7.55. To be read in conjunction with K1001, BS448 and BS1409	SECURITY Specification: UNCLASSIFIED Valve: UNCLASSIFIED

TYPE OF VALVE:- Sub-miniature output pentode CATHODE:- Directly heated ENVELOPE:- Glass unmetallised PROTOTYPE:- DL69/VX8171C	MARKING See K1001/4 except that the valve shall be marked with the CV No., factory and date code only. BASE BS448/B5A with flexible leads

RATING			Note
Filament Voltage	(V)	1.25	
Filament Current	(mA)	25	
Max. Anode Voltage	(V)	100	
Max. Screen Voltage	(V)	100	
Mutual Conductance	(mA/V)	0.85	B
Anode Impedance	(M.ohms)	0.6	B
Optimum Anode Load	(M.ohms)	0.06	
Nominal Power Output	(mW)	50	C

CONNECTIONS	
Pin	Electrode
1	a
2	g2
3	f(-)
4	g1
5	f(+)

DIMENSIONS

See drawing on page 3

NOTES

A. All limiting ratings are absolute.

B. Measured at Va = Vg2 = 90V, Vg1 = -2.5V.

C. Measured at Va = Vg2 = 100V, Vg1 = -3.0V.

Sharp bends in valve leads must not be made closer than 1.5 mm. to the glass seal and soldered joints in the leads must not be made closer than 5.0 mm. to the seal.

To be performed in addition to those applicable in K1001

	Test Conditions				Test		Limits Min.	Limits Max.	No. Tested	Note
	Vf	Va	Vg2	Vg1						
a	1.25	-	-	-	If	(mA)	22	28	100%	
b	1.25	90	90	-2.5	Ia	(mA)	1.1	2.4	100%	
c	1.25	90	90	-2.5	Ig2	(mA)	-	0.6	100%	
d	1.25	90	90	-2.5	gm	(mA/V)	0.65	1.05	100%	
e	1.0	90	90	-2.5	gm	(mA/V)	0.45	1.05	100%	
f	1.25	90	90	-2.5	Rev.Ig1	(uA)	-	0.5	100%	
g	1.25	90	90	-8	Ia tail	(uA)	-	50	100%	1
h	1.25				Microphony	(V)	-	3.5	100%	2

NOTES

1. 1 Megohm protective resistance in series.

2. RL = 0.25 Megohm
   Rg2 = 1.0 Megohm by-passed with 0.5uF capacitor to f(-)
   Rg1 = 0.25 Megohm
   Anode supply voltage = Vg2 = 90V.

The above specified conditions shall be applied to the valve under test, the tests should be performed in an acoustic chamber constructed to drawing 182 JAN with an RCA victor dynamic speaker MI-6234, or an approved equivalent make mounted on the 11- by 18-inch closed end and facing inward and the tube test socket mounted approximately 3 inches from the opposite end.

The anode of the valve under test shall be coupled through an 0.1uF capacitor to an audio amplifier having approximately 100,000Ω input resistance and a response characteristic between 60 and 5,000 c/s, flat within ±2 db of the 400 cycle response, with a resistor load substituted for the speaker. The power amplifier shall be capable of delivering 5 watts with less than 10% distortion. (Set amplifier gain for 50 mW (3.5V) output with an applied signal voltage of 300 mV rms.).

The speaker shall be coupled to the output of the amplifier so as to present rated load to the amplifier. A VU type meter with an attenuator shall be bridged across a suitable tap on the output of the amplifier. The VU meter may have the dial calibrated in electrical or arbitrary units, the attenuator must be designed to retain the ballistic characteristics specified for the VU meter. The calibrated points used for setting the amplifier gain and as rejection points shall be determined for each test set on the basis of the power in the resistor load only. At 400 cycles and 50 milliwatts the resistor shall have been adjusted to the same impedance as the voice coil for which it is substituted.

The amplifier gain will be adjusted (without the valve in the "test" socket) to give the specified output with the specified calibration voltage at 400 cycles applied to the anode terminal of the valve "test" socket. The calibrating voltage will be removed and the valve under test inserted. When operating under the above conditions no "objectionable noise" or microphonism shall be evident either with the valve at rest or when it is tapped. Objectionable noise or microphonism shall be defined as:

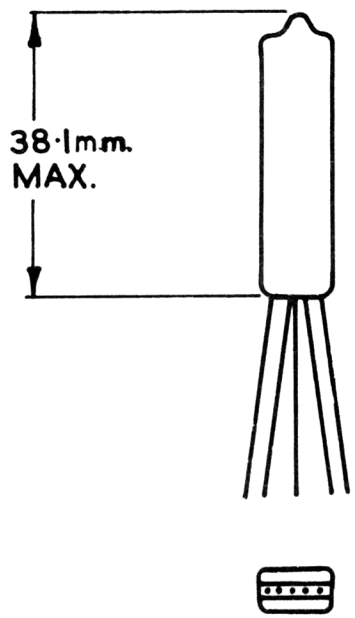
(a) Background noise, sustained microphonics, or oscillations over 2 seconds in duration having greater than ½ milliwatt output power level.

(b) Clicks or scratchy noises of any sort.

Valves to be rejected, if, on tapping, output meter reads greater than 3.5V.

CV2361

REFER TO B.S.448 SECTION B5A/1.1



LEADS – LENGTH 32mm. MIN.