MINISTRY OF SUPPLY - D.L.R.D.(A)/R.A.E.

VALVE ELECTRONIC

CV476

Specification MOS(A)/CV.476

Issue 1 Dated 30.11.55

To be read in conjunction with BS.1409 and K1001

SECURITY	
Specification	Valve
UNCLASSIFIED	UNCLASSIFIED

TYPE OF VALVE - Low Microphony Pentode

CATHODE - Indirectly Heated

ENVELOPE - Glass, unmetallised

PROTOTYPE - CV.472 Mod.

MARKING
K1001/4

BASE
B8D

CONNECTIONS

Pin	Electrode
1	g1
2	g3
3	h
4	a
5	g2
6	h
7	k
8	a

RATING

			Note
Heater Voltage	(V)	6.3	
Heater Current	(mA)	200	
Max. Anode Voltage (Ia = 0)	(V)	350	A
Max. Screen Voltage (Ig2 = 0)	(V)	350	A
Max. Anode Dissipation	(W)	1.0	A
Max. Screen Dissipation	(W)	0.4	A
Max Operating Anode Voltage	(V)	190	A
Max. Operating Screen Voltage	(V)	190	A
Max. Cathode Current	(mA)	12	A
Max. Heater Cathode Voltage D.C. or A.C. r.m.s.	(V)	100	A
Mutual Conductance	(mA/V)	3.1	B
Anode Impedance	(kΩ)	180	B

CAPACITANCES (pF)

C in (nom.)	3.6	C
C out (nom.)	4.2	C
Ca,g1 (max.)	0.3	C

DIMENSIONS

See drawing on page 3.

Dimensions (mm)	Min.	Max.
A	-	38.0
B	9.3	10.16

MOUNTING POSITION

Any

NOTES

A. Absolute Value.

B. Measured at Va = Vg2 = 100V; Vg1 = -1.4V. (Ia = 7.0mA; Ig2 = 2.4mA.)

C. Measured with a close fitting metal screen.

2.10775.R.

To be performed in addition to those applicable in K.1001.

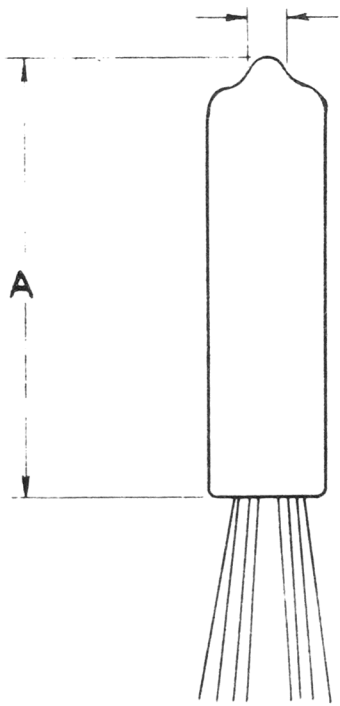
	Test Conditions					Test	Limits Min.	Limits Max.	No. Tested	Note
	See K.1001/AIII					Capacitances (pF)			6 per week	
	Links to H.P.	Links to L.P.	Links to E.							
a	1	2, 3, 5, 6, 7, sh.	4, 8			C in	3.0 ~~2.9~~	4.6 ~~4.3~~		
a	4, 8	2, 3, 5, 6, 7, sh.	1			C out	~~3.4~~ 3.5	~~5.0~~ 5.3		
a	1	4, 8	2, 3, 5, 6, 7, sh.			Ca,g1	-	0.3		
	Vh	Va	Vg2	Vg1	Ia					
b	6.3	0	0	0	0	Ih (mA)	180	220	100% or S	
c	6.3	100	100	-	7.0 mA	Vg1 (V)	-0.8	-2.0	100%	
d	6.3	100	100	-	7.0 mA	gm (mA/V)	2.4	3.8	100%	
e	6.3	100	100	-	7.0 mA	Ig2 (mA)	1.8	3.0	100%	
f	6.3	100	100	-	7.0 mA	Reverse Ig1 (μA)	-	0.5	100%	
g	6.3	See Note 1 ~~100~~	100	-10	-	Ia (μA)	-	50	100%	1
h	6.3	-	-	-	-	Microphony (V)	-	3.5	100%	2

NOTES

1. With an anode supply voltage of 100V applied through a 1.0 MΩ protective resistance in series with meter.
2. Test in JAN type gear (See K1006 clause 4.10.3.3 and its amendments.) Va = 100V; RL = 220 kΩ; Rg2 = 870 kΩ; Rg1 = 100Ω; Rk = 2.2 kΩ shunted with 100 μF capacitor. g2 decoupled by 0.1 μF capacitor to earth.

   Amplifier sensitivity 20 mV input for 50 mW (3.5 V) output. Valve to be tapped slightly with a mallet consisting of a 1 inch cork mounted on one end of a fibre rod 7 inches long, 3/16 inches diameter. The output meter shall not give kicks above 3.5 volts (50 mW), and there shall not be any continuous howls from the loudspeaker.

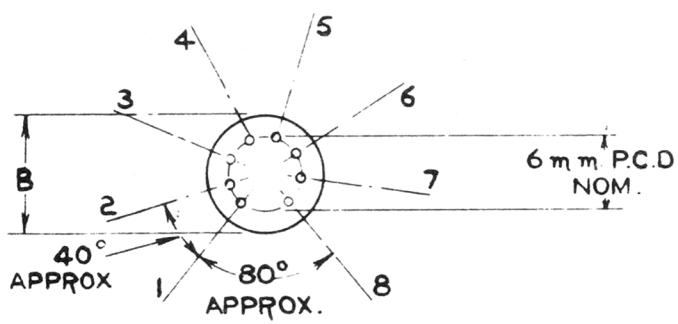
CV476



BULB STRAIGHTNESS TEST

THE FINISHED VALVE MUST PASS THROUGH A CYLINDRICAL GAUGE OF LENGTH AT LEAST EQUAL TO THAT OF THE BULB. I.D. OF CYLINDER = 0·4 INCH.

THE LEADS SHALL BE FLEXIBLE 25-27 S.W.G. TINNED WIRE AT LEAST 38 mm. IN LENGTH



ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION CV.476

ISSUE 1 DATED 4.11.55

AMENDMENT No.1.

Page 1

Dimensions Table

Amend the table to read as follows:

Dimensions	Min.	Max.
A m.m.	-	38.00
B m.m.	9.3	10.16

T.V.C. Office for

Director,
Royal Aircraft Establishment.

April, 1957.

N.87689/R

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION CV.476

ISSUE 1 DATED 30.11.55

AMENDMENT NO. 2

Page 2

Test "g". Ia

Under "Va" column delete 100V and substitute "See Note 1".

Amend Note 1 to read:

With an anode supply voltage of 100V applied through a 1 MΩ protective resistance to the anode.

Director,
Royal Aircraft Establishment.

6th August, 1957.

N.5054/R

Electronic Valve Specification

Specification CV 476

Issue 1 dated 30.11.55

Amendment 3

Page 2 Test (a) Capacitances

Amend the Capacitance limits to read as follows:-

Cin	Min.	3.0 pF	Max.	4.6 pF
Cout	Min.	3.5 pF	Max.	5.3 pF

N.5315R

P.T.O.

NOTE

After "Test in JAN type gear" insert
"(see K1006 Clause 4.10.3.3. and its Amendments.)"

20th September, 1957.

T.V.C.
for Director
Royal Aircraft Establishment