

VALVE ELECTRONIC CV 380

GENERAL POST OFFICE: E-IN-C (3)

Specification: G.P.O./CV 380/Issue 1	<u>SECURITY</u>	
Dated: 2/1/47	<u>Specification</u>	<u>Valve</u>
To be read in conjunction with K 1001	Unclass	Unclass

-----> indicates a change

<u>TYPE OF VALVE:</u> H.F. Pentode		<u>MARKING</u>	
<u>CATHODE:</u> Indirectly heated		See K 1001/4	
<u>ENVELOPE:</u> Glass, enclosed in metal shell		<u>BASE</u>	
<u>PROTOTYPE</u> EF 54 (mod)		British 9-pin glass (B9G) with silver-plated pins (Note A)	
<u>RATING</u>		<u>CONNEXIONS (Note B)</u>	
	Note	Pin	Electrode
Heater voltage (V) 6.3		1	Heater
Nominal heater current (A) 0.3		2	Anode
Max. anode voltage (V) 300		3	Screen grid
Max. screen voltage (V) 300		4	Internal screen
Max. anode dissipation (W) 3.0		5	Internal screen
Max. screen dissipation (W) 1.7		6	Control grid
Mutual conductance (mA/V) 7.7	C	7	Internal screen
Anode impedance (megohms) 0.5	C	8	Internal screen
Inner amplification factor 80.0	C	9	Heater
Max. operating frequency (Mc/s) 300			
<u>CAPACITANCES (pF)</u>		<u>DIMENSIONS</u>	
C _{ag} (max) 0.02		See K 1001/A1/D2	
C _{ae} (max) 6.0		Groove referred to in Note 1 of drawing is required.	
C _{ge} (max) 10.0			
C _{g1g2} (nominal) 2.1			

NOTES

- A. Pins shall be silver plated to a thickness of 0.0003".
- B. Cathode and supressor grid shall be connected internally to the screen.
- C. Measured with $V_a = V_{g2} = 250$, and $I_a = 10$ mA.

TESTS

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

	TEST CONDITIONS					TEST	LIMITS		No. Tested	Note
							Min.	Max.		
(a)	See K 1001/A III					<u>CAPACITANCES (pF)</u>				
	Links to H.P.	Links to L.P.	Links to E							
	2	6	1,3,4,5,7,8,9,10,TC1,TC2	(i) Cag	-		0.02	6 per week		
	2	1,3,4,5,7,8,9,10	6,TC1,TC2	(ii) Cae	4.5		6.0	6 per week		
	6	1,3,4,5,7,8,9,10	2,TC1,TC2	(iii) Cge	7.5		10.0	6 per week		
	Vh (V)	Va	Vg1	Vg2	Ia (mA)					
(b)	6.3	-	-	-	-	Ih (A)	0.27	0.33	100%	
(c)	6.3	250	Read	250	10	Vg1 (V)	-1.1	-2.1	100%	
(d)	6.3	250	Adjust	250	10	Reverse Ig (μA)	-	0.5	100%	
(e)	6.3	250	Adjust	250	10	gm (mA/V)	6.1	9.3	100%	1
(f)	6.3	250	Adjust	250	10	Ig2 (mA)	1.40 1.75	1.75	100%	
(g)	6.3	250	Adjust	250	10	Input impedance at 40 Mc/s (ohms)	9000	-	-	2

NOTES

1. Peak grid swing $\pm$ 0.5 volts max.
2. Input impedance measurements shall be made on 50% of the valves selected for capacitance measurements.