

VALVE ELECTRONIC **CV1630**GENERAL POST OFFICE: E-IN-C (W)

(POVT 205)

Specification: G.P.O./CV1630/Issue 2	<u>SECURITY</u>	
Dated: 18.6.47	<u>Specification</u>	<u>Valve</u>
To be read in conjunction with K 1001	Restricted	Restricted

-----> indicates a change

<u>TYPE OF VALVE:</u> Pentode			<u>MARKING</u> See K1001/4 Additional markings required (See Notes A & B) Serial No. Filament Volts 10.0	
<u>CATHODE:</u> Directly heated tungsten filament				
<u>ENVELOPE:</u> Unmetallised glass				
<u>PROTOTYPE</u> 5C/450A				
<u>RATING</u>		Note	<u>BASE</u> See drawing on page 4	
Filament voltage (V) 10.0			<u>CONNEXIONS</u> See drawing on page 4 <u>DIMENSIONS</u> See drawing on page 4 <u>PACKING</u> See K1001/7.3	
Nominal filament current (A) 13.0				
Max. anode voltage (kV) 3.0				
Max. screen voltage (V) 650.0				
Max. anode dissipation (W) 450.0				
Max. screen dissipation (W) 100.0				
Mutual conductance (mA/V) 6.5				
Max. anode voltage at 20 Mc/s. (kV) 2.25				
<u>CAPACITANCES (pF)</u>				
C _{ag} (max) 0.2				
C _{ae} (max) 30.0				
C _{ge} (max) 50.0				
<u>NOTES</u> A. The Serial Numbers will be allotted by the Inspecting Officer B. It is not essential that the additional markings shall appear within the frame C. The maximum frequency of operation for these ratings is 10 Mc/s. D. Measured with V _a = 2500, V _{g2} = 600, V _{g3} = 0, and V _{g1} = -90 (A.C. filament) or -85 (D.C. filament)				

TESTS

The tests shown in Table I, or alternatively, those shown in Table II, shall be performed in addition to those applicable in K1001

Table I (for A.C. filament heating)

	TEST CONDITIONS						TEST	LIMITS		No. Tested	Note
	Vf(V)	Va(kV)	Vg1(V)	Vg2(V)	Vg3(V)	Ia(mA)		Min.	Max.		
(a)	10.0	-	-	-	-	-	If (A)	12.4	13.6	100%	
(b)	10.0	2.5	Adjust	600	0	200	Reverse Ig (μ A)	-	15.0	100%	1
(c)	10.0	2.5	-88	600	0	Read	Ia (mA)	130.0	180.0	100%	
(d)	10.0	2.5	-88	600	0	-	Ig2 (mA)	-	-	100%	2
(e)	10.0	2.5	-88 -93	600	0	Read Read	gm (mA/V)	5.0	-	100%	
(f)	10.0	2.5	Note 3	600	100 -100	Read Read	Reduction in Ia (mA)	30.0	-	100%	3
(g)	10.0	1.0	1000	1000	1000	-	Ie(Peak) (A)	7.5	-	100%	4

Table II (for D.C. filament heating)

	TEST CONDITIONS						TEST	LIMITS		No. Tested	Note
	Vf(V)	Va(kV)	Vg1(V)	Vg2(V)	Vg3(V)	Ia(mA)		Min.	Max.		
(a)	10.0	-	-	-	-	-	If (A)	12.4	13.6	100%	
(b)	10.0	2.5	Adjust	600	0	200	Reverse Ig (μ A)	-	15.0	100%	1
→ (c)	10.0	2.5	-83	600	0	Read	Ia (mA)	130.0	180.0	100%	
→ (d)	10.0	2.5	-83	600	0	-	Ig2 (mA)	-	-	100%	2
(e)	10.0	2.5	-83 -88	600	0	Read Read	gm (mA/V)	5.0	-	100%	
(f)	10.0	2.5	Note 3	600	105 -95	Read Read	Reduction in Ia (mA)	30.0	-	100%	3
(g)	10.0	1.0	1000	1000	1000	-	Ie(Peak) (A)	7.5	-	100%	4

NOTES

1. The duration of test (b) shall be 15 minutes and the reverse grid current shall not be rising during the last 10 minutes.
2. The value of test (d) shall not be greater than 8% of the value obtained in test (c).
3. For test (f) V_{g1} shall be adjusted to the same value as that obtained for test (b).
4. To be performed in accordance with K1001/AV.

OUTLINE DRAWING

