VALVE ELECTRONIC **CV 1614**

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

(POVT 34)

Specification: G.P.O./CV1614/Issue 3 Dated: 13-5-48 To be read in conjunction with K 1001	SECURITY Specification: **Restricted** Valve: **Restricted**

—→ indicates a change

TYPE OF VALVE: **Transmitting triode** CATHODE: **Directly heated tungsten filament** ENVELOPE: **Unmetallised glass, double-ended** PROTOTYPE **ES 1500A; MT 13**	MARKING See K1001/4 Additional markings required (See Notes A, B, & C) Serial No..... Filament Volts ....

RATING

		As Marked	Note
Filament voltage	(V)		B
Nominal filament current	(A)	24.0	
Max. anode voltage	(kV)	10.0	D
→ Max. anode dissipation	(kW)	1.5	D
Amplification factor		40.0	E
Mutual conductance	(mA/V)	2.2	E
Anode impedance	(ohms)	18,000	E

BASE

None

CONNEXIONS

See drawing on page 4

DIMENSIONS

See drawing on page 4

PACKING

See K1001/7.3

NOTES

A. The serial numbers will be allotted by the Inspecting Officer
B. The Marked Voltage is defined on page 2, test (a)
C. It is not essential that the additional markings shall appear within the frame
D. The maximum frequency of operation for these ratings is 22 Mc/s
E. Measured with Va = 5 kV, and Ia = 200 mA.

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)	Vg(kV)	Ia(mA)		Min.	Max.		
(a)	Read	0.75	0.75	-	Vf Minimum required for peak emission of 2 amps To be known as "Marked Voltage" (V)	16.0	18.0	100%	1
(b)	MV	-	-	-	If (A)	22.0	26.0	100%	
(c)	MV	7.5	Adjust	200	Reverse Ig (μA)	-	60.0	100%	2
(d)	MV	5	Read	200	Vg (V)	-16.0	24.0	100%	
(e)	MV	2.5 7.5	Read Read	200	μ	35.0	45.0	100%	
(f)	MV	7 10	-	-	Oscillation efficiency (%)	50.0	-	100%	3
(g)	MV	7.5	Adjust	200	Reverse Ig (μA)	-	60.0	100%	2

Table II (for D.C. filament heating)

	TEST CONDITIONS				TEST	LIMITS		No. Tested	Note
	Vf(V)	Va(kV)	Vg(kV)	Ia(mA)		Min.	Max.		
(a)	Read	0.75	0.75	-	Vf. Minimum required for peak emission of 2 amps To be known as "Marked Voltage" (V)	16.0	18.0	100%	1
(b)	MV	-	-	-	If (A)	22.0	26.0	100%	
(c)	MV	7.5	Adjust	200	Reverse Ig (μA)	-	60.0	100%	2
(d)	MV	5	Read	200	Vg (V)	-7.0	33.0	100%	
(e)	MV	2.5 7.5	Read Read	200	μ	35.0	45.0	100%	
(f)	MV	7 10	-	-	Oscillation efficiency (%)	50.0	-	100%	3
(g)	MV	7.5	Adjust	200	Reverse Ig (μA)	-	60.0	100%	2

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NOTES

1. The test shall be made in accordance with K1001/AV

2. The duration of tests (c) and (g) shall be 15 minutes each, and the reverse grid current shall not be rising at the end of either test.
Test (c) shall precede test (f), and test (g) shall follow immediately upon the end of test (f).

3. The duration of test (f) shall be 15 minutes, and the anode input power shall not be less than 3 kW.
The test shall be made by causing the valve to oscillate in an approved circuit, the oscillation frequency being not less than 15 Mc/s.
In the event of such a circuit not being available for this test, the valve may be tested in an oscillatory circuit of a frequency not less than 800 kc/s, but, if this applies, the right is reserved to conduct test (f) on service premises in a circuit of frequency not greater than 22 Mc/s, and to reject any valve found to be unsatisfactory at this higher frequency during the test.

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OUTLINE DRAWING