

VALVE ELECTRONIC **CV1653**GENERAL POST OFFICE: E-IN-C ( S )

(POVT 73A, AR 12)

Specification: <b>G.P.O./CV 1653/Issue 2</b> Dated: <b>21.2.47</b> To be read in conjunction with K 1001	<u>SECURITY</u>	
	<u>Specification</u> <b>Restricted</b>	<u>Valve</u> <b>Restricted</b>

—————&gt; indicates a change

<u>TYPE OF VALVE:</u> <b>Triode</b> <u>CATHODE:</u> <b>Directly heated</b> <u>ENVELOPE:</u> <b>Unmetallised glass</b> <u>PROTOTYPE</u> <b>4020A</b>			<u>MARKING</u>  See K1001/4		
<u>RATING</u>		Note	<u>BASE</u> Bayonet cap 4-pin (BC4) See drawing on page 3 and Note B.		
Filament current	(A) 0.25		<u>CONNEXIONS</u>		
Nominal filament voltage	(V) 2.0	A A A	Pin	Electrode	
Max. anode voltage	(V) 160		1	Grid	
Mutual conductance	(mA/V) 0.6		2	Filament -	
Amplification factor	30.0		3	Filament +	
Anode impedance	(ohms) 50,000		4	Anode	
<u>CAPACITANCES (pF)</u>			<u>DIMENSIONS</u> See K1001/A1/D1		
Cag	(max) 7.0	Dimension		Min.	Max.
Cae	(max) 5.0	A	(mm)	-	120
Cge	(max) 7.0	B	(mm)	-	50

NOTE

- A. Measured with  $V_a = 130$ , and  $V_g = -1.5$
- B. The axis of the bayonet locating pin shall lie within  $25^\circ$  of the plane of the filament.

## TESTS

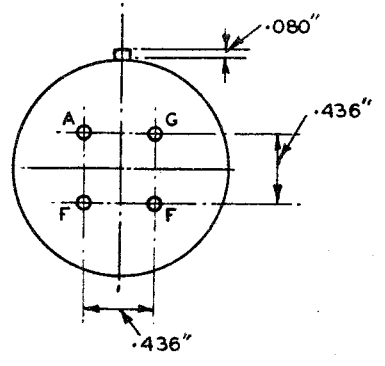
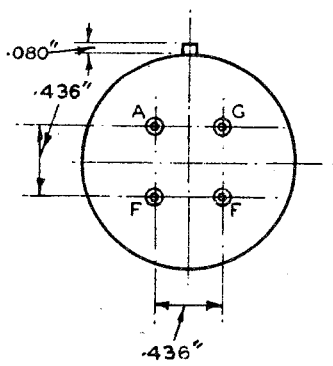
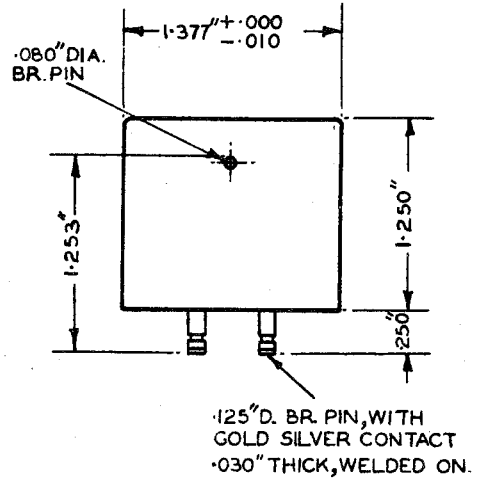
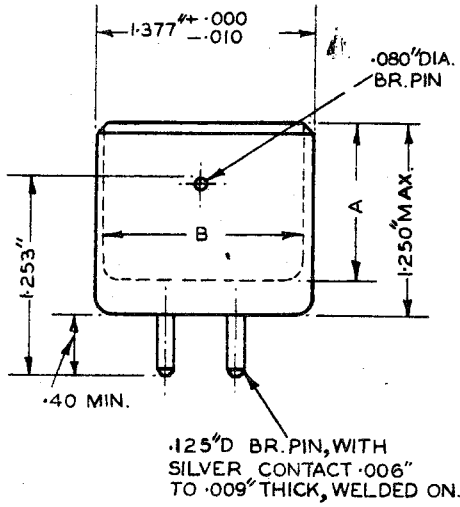
To be performed in addition to those applicable in K1001

	TEST CONDITIONS			TEST	LIMITS		No. Tested	Note
					Min.	Max.		
(a)	See K1001/AIII			<u>CAPACITANCES (pF)</u>				
	Links to H.P.	Links to L.P.	Links to E					
	4	1	2,3,5,6,7,8,9,10,TC1,TC2	(i) Cag		7.0	6 per week	
	4	2,3	1,5,6,7,8,9,10,TC1,TC2	(ii) Cae		5.0	6 per week	
	1	2,3	4,5,6,7,8,9,10,TC1,TC2	(ii) Cge		7.0	6 per week	
(b)	Test Voltage 500 Volts, D.C.			<u>INSULATION (megohms)</u>				
				(i) Anode to filament	100	-	1%	
				(ii) Anode to grid	500	-	1%	
				(iii) Grid to filament	500	-	1%	
	If(A)	Va	Vg					
(c)	0.25	-	-	Vf (V)	1.8	2.2	100%	
(d)	0.25	130	-1.5	Ra"x" (ohms)	40,000	60,000	100%	
(e)	0.23	130	-1.5	Ra"y" (ohms)	-	1.1"x"	100%	1
(f)	0.25	130	-1.5	μ	25.0	35.0	100%	
(g)	0.25	130	-1.5	Reverse Ig (μA)	-	0.5	100%	
(h)	0.25	130	-7.0	Ia (μA)	-	1.5	100%	

### NOTE

1. Re-adjust If with Va = Vg = 0

OUTLINE DRAWING



INTERNAL DIMENSIONS A & B TO SUIT MANUFACTURERS REQUIREMENTS.

MATERIAL: - N.I.P. BRASS CYLINDER WITH MOULDED INTERIOR.

FIG. 1. MOULDED TYPE.

FIG. 2. METAL SHELL TYPE.