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

VALVE ELECTRONIC **CV 2322**

Specification: G.P.O./CV 2322. Issue 1A Dated: May, 1963 To be read in conjunction with K 1001	SECURITY Specification: Unclassified Valve: Unclassified

→ indicates a change

TYPE OF VALVE: Air Blast Cooled Triode.

CATHODE: Directly heated. Thoriated tungsten filament.

ENVELOPE: Copper - glass. Nickel/Iron/Cobalt/Alloy.

PROTOTYPE: BR 161

MARKING

See K 1001/4
Additional markings required (See Note C)
Serial No. .....
Filament Volts - 9.0. ←

RATING			NOTE
Filament Voltage	(V)	9.0	
Filament Current (nominal)	(A)	175.0	
Max. direct anode voltage	(kV)	12.0	
Max. anode dissipation	(kW)	15.0	
Max. grid dissipation	(kW)	1.0	
Amplification factor		45.0	A
→ Mutual conductance	(mA/V)	23.0	B
Peak usable emission	(A)	45.0	
Max. frequency for above ratings	(Mc/s)	30.0	
→ " " " anode voltage 9 kV	(Mc/s)	50.0	
→ Air flow 1,050 c/f/minute at a pressure drop of 1.3 inches water gauge			D

BASE

See drawing, page 3.

CONNECTIONS

See drawing, page 3.

DIMENSIONS

See drawings, page 3.

CAPACITANCE (pf)	
Cag	36.0
C in	57.0
C out	1.5

PACKAGING

See K 1005

NOTES

→ A measured at Va = 9 kV, Ia = 2.0A.

→ B measured at Va = 10 kV, Ia = 1.5A.

→ C It is not essential that the additional markings shall appear within the frame.

→ D In addition to this the grid and filament seals require air cooling with a flow of 20 c.ft./min. from a 1" nozzle directed vertically downwards on to the valve.

CV 2322

TESTS

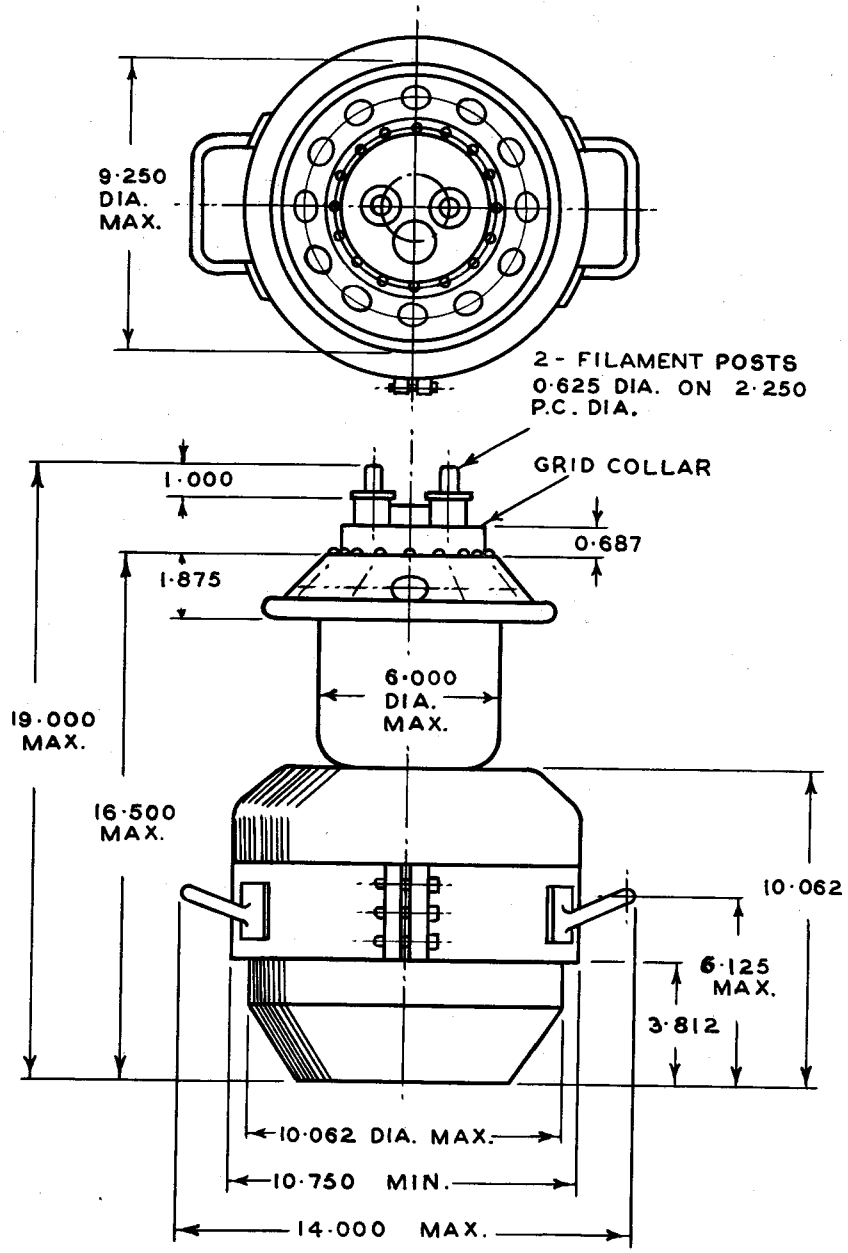
To be performed in addition to those applicable in K 1001

	TEST CONDITIONS				TEST	LIMITS MIN.	LIMITS MAX.	No. TESTED	NOTES
a	See K 1001/APP III				CAPACITANCE (pF) C a g C in	 32 50 RECORD	 42 62	10%	
b	Vf (V) 9.0	Va (kV) -	Vg (V) -	Ia (A) -	If (A)	163	192	100%	2
c	9.0	12.0	Adjust	2.0	Rev. I1g (µA)	-	230	100%	1.2
d	9.0	12.0	Adjust	0.1	Rev. I2g (µA) Gas current = I1g-I2g	- -	80 190	100%	2
e	9.0	8.0	Read	0.35	Vg (V)	-158	-222	100%	2
f	9.0	10.0 8.0	Read Read	2.0 2.0	µ	37	48	100%	2
g	9.0	10.0	Read Read	1.0 2.0	gm (mA/V)	21.5	29	100%	2
h	9.0	2.0	+ 250	Read	Ia (A) Ig (A)	7.0 0.5	12.0 4.0	100%	4.2
j	9.0	4.0	+ 250	Read	Ia (A) Ig (A)	9.5 0	14.5 2.5	100%	4.2
k	9.0	3.0	3,000		Ie (A)	85	-	100%	3.2
m	9.0				Repeat tests c.d.	as for tests c.d.		100%	2

NOTES

1. Test 'c' shall be continued for 15 minutes and the value of Ig shall not be rising at the end of the test.
2. Tests to be carried out with the filament heated by 50 c.p.s. current, and all circuit returns shall be made to the centre tap on the filament transformer secondary. Air flow of 2,000 c/f/minute through radiator.
3. Peak emission to be obtained by pulse methods as outlined in K 1001AppV or by other approved apparatus.
4. Spot readings only, or by pulse methods.

CV2322



ALL DIMENSIONS IN INCHES