

ADMIRALTY SIGNAL ESTABLISHMENT

Specification AD/CV316/Issue 2. Dated 21.2.47. To be read in conjunction with K1001, ignoring clause:- 5.2.	<u>SECURITY</u>	
	<u>Specn.</u> Restricted	<u>Valve</u> Unclassified

<u>TYPE OF VALVE:-</u> High Vacuum Rectifier, Half-wave. <u>CATHODE:-</u> Directly Heated, Thoriated Tungsten Filament. <u>ENVELOPE:-</u> Hard Glass. <u>PROTOTYPE:-</u> VX316.	<u>MARKING</u> See K1001/4.		
	<u>BASE</u> GES Base thread : F Base button : F TC : A		

<u>RATING</u>		Note	<u>TOP CAP</u> See K1001/AI/D5.		
Filament Voltage (V)	4.0		A	Dimensions	Min.
Filament Current (A)	11.5		d mm	8.79	9.4
Min. Total Emission (A)	2.5		Overall length mm	13.97	16.51
Max. Steady Anode Dissipation (W)	45		<u>DIMENSIONS</u> See K1001/AI/D1.		
Max. Peak Inverse Voltage (kV)	12		Dimensions	Min.	Max.
Max. Mean Rectified Current in a single Valve Circuit with Choke-input Filter (mA)	200		A mm	-	250
			B mm	-	60
			<u>MOUNTING</u> See Note B.		
			<u>PACKING</u> See K1001/7.		

NOTES

A. When dissipating 45 watts the anode shows no visible sign of heating.

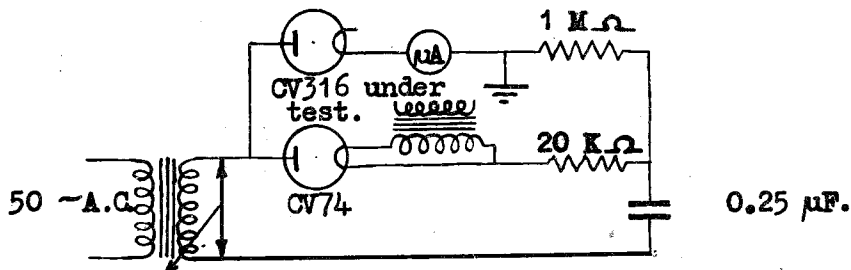
(Manufacturing note: In order to ensure reasonably uniform anode heating and the absence of anode hot-spots when the anode is dissipating 45 watts, care must be taken to ensure that the filament system is assembled centrally inside the anode.)

B. The filament, being carbonised tungsten, tends to be brittle, and it is therefore advisable to spring the valve-holder so as to reduce the transmission of mechanical shocks to the valve.

TESTS

To be performed in addition to those applicable in K1001 and in the order given below.

	Test Conditions		Test	Limits		No. Tested
	Vf (V)	Va (V)		Min.	Max.	
a	4.0	0	If (A)	11	12	100%
b	0	Peak inverse voltage 15 kV. Test in circuit as in Fig. 1.	Inverse Voltage Test.	There shall be no sparking or field-current exceeding 20 μ A as indicated by the microammeter.		100%
c	4.0	Adjusted to give Ia = 300 mA. (Va = 175 V approx.)	Vacuum.	There shall be no visible ionisation glow and no need to readjust Va during the last 3 minutes.		100%
		Time : 5 mins.				
d	4.0	3 kV applied momentarily. See K1001/AV.	Emission (A)	2.5	-	100%



Output variable up to 5400 V. R.M.S.