

ADMIRALTY SIGNAL AND RADAR ESTABLISHMENT

Specification AD/CV193 Issue No. 2 dated 7.3.57. To be read in conjunction with K.1001, ignoring clauses 5.2 and 5.8.		<u>SECURITY</u> <u>Specification</u> <u>Valve</u> Unclassified Unclassified	
→ Indicates a change			
<u>TYPE OF VALVE:-</u> T.R. Switch		<u>MARKING</u> See K1001/4	
<u>RATINGS</u> All limiting values are absolute.		<u>DIMENSIONS & CONNECTIONS</u> See drawing on Page 3	
Operating Frequency (Mc/s)		2940 to 3060	<u>Note</u>
→ Min. Primer Supply Voltage	(V)	-800	A
→ Max. Primer Operating Current	(μ A)	150	A
→ Min. Primer Operating Current	(μ A)	100	A
→ Max. Peak Power	(kW)	500	B
<u>NOTES</u>			
→ A. Primer Current to be limited by a series resistance of which at least 1 Megohm must be adjacent to the valve.			
→ B. With duty ratio not exceeding 0.001.			

TESTS

To be performed in addition to those applicable in K.1001 and after 30 days holding period.

	Test Conditions	Test	Limits		No. Tested	Note
			Min.	Max.		
a	See Note 1	<u>Primer Operating Voltage</u> (V) The primer voltage shall be measured after breakdown has occurred.	250	450	100%	1
b	The transmission line shall be energized by not more than 100 mW R.F. The frequency tuning range shall be obtained by adjusting two tuners. The third tuner (opposite the waveguide flange) is to be omitted during the test.	<u>Frequency Range</u> (Mc/s)	2940 to 3060		100%	2

NOTES

1. The d.c. primer supply voltage shall be 800V having a peak to peak ripple voltage not exceeding 1%, and the primer shall be negative with respect to the resonator. The regulation of the supply shall be negligible up to load currents of 200/ma. The current through the valve shall be limited to 150 /ma by series resistances of which at least 1 Megohm must be placed adjacent to the valve.
2. The upper limit of the frequency range is found by turning the tuning slugs in as far as possible and then measuring the resonant frequency of the cavity in that state. The lower limit of the frequency is found by removing the tuning slugs, then screwing them two turns back into the cavity and measuring the resonant frequency of the cavity in that state.

