

ADMIRALTY SIGNAL AND RADAR ESTABLISHMENTVALVE ELECTRONIC

CV2739

Specification AD/CV2739 Issue No. 2 dated 19.3.57. To be read in conjunction with K1001	<u>SECURITY</u> <u>Specification</u> Unclassified	
	<u>Valve</u> Unclassified	

—> Indicates a change

TYPE OF VALVE:- T.R. Switch for use in tunable cavity resonator. PROTOTYPE:- CV293 without resonator fittings.		<u>MARKING</u> See K1001/4
<u>RATINGS</u> All limiting values are absolute	Note	<u>DIMENSIONS AND CONNECTIONS</u> See drawing on Page 3.
Operating Frequency (Mc/s)	600	A
Min. Primer Supply Voltage (V)	800	B
Max. Primer Operating Current (μ A)	150	B
Min. Primer Operating Current (μ A)	100	B
Max. Peak Power (kW)	500	C
<u>NOTES</u> A. For test purposes the valve is measured in a CV293 resonator to limits which ensure that it will operate at 600 Mc/s. See test (b) on Page 2. B. Primer current to be limited by a series resistance of which at least 1 Megohm must be adjacent to the valve. C. With duty ratio not exceeding 0.001.		

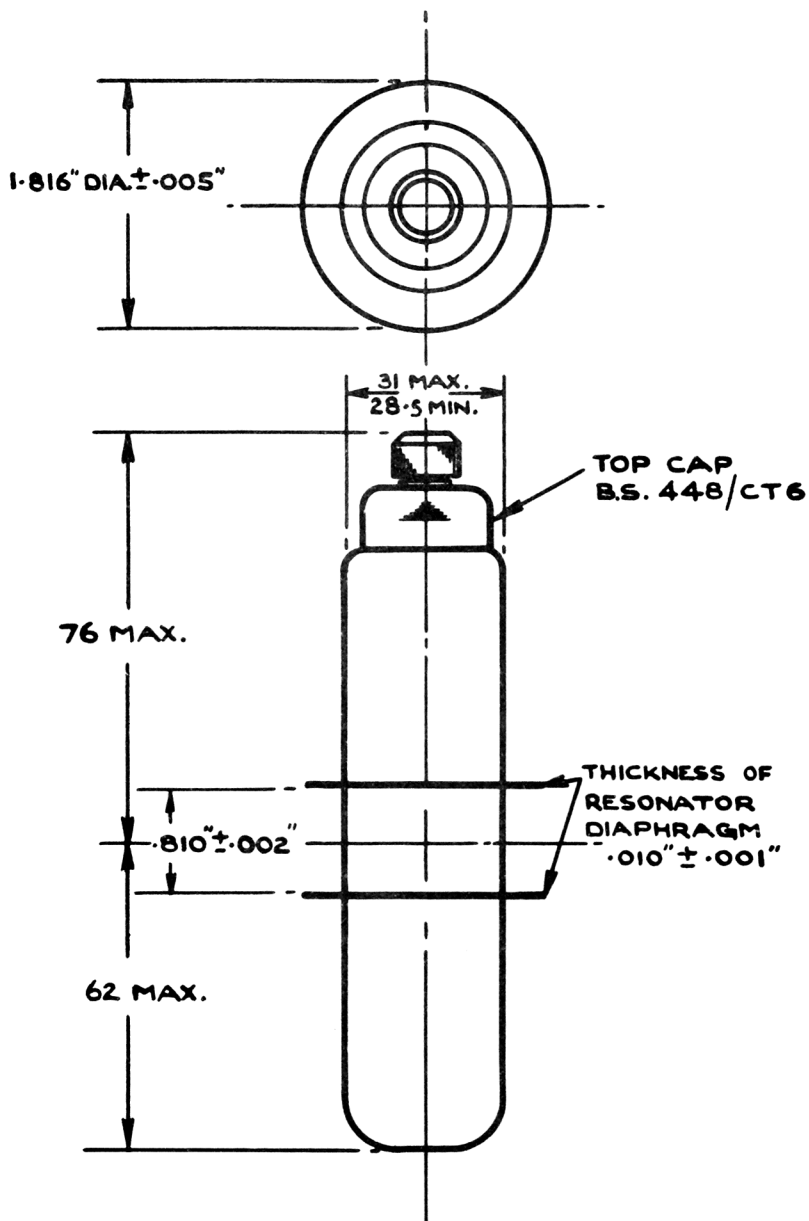
TESTS

To be performed in addition to those applicable in K1001

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	See Note 2	<u>Frequency Range</u> (Mc/s)	2925 to 3075		100%	2, 3

NOTES

1. The dc 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 diaphragm. The regulation of the supply shall be negligible up to load currents of 200 μ A. The current through the valve shall be limited to 150 μ A by series resistances of which at least 1 Megohm must be placed adjacent to the valve.
2. The T.R. Switch is fitted to a Type CV293 resonator, and the unit coupled to a waveguide energised by not more than 100 mW, R.F.
3. 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 range 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.



ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.