

ADMIRALTY SIGNAL AND RADAR ESTABLISHMENT

VALVE 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>	<u>Valve</u>
	Unclassified	Unclassified

→ Indicates a change

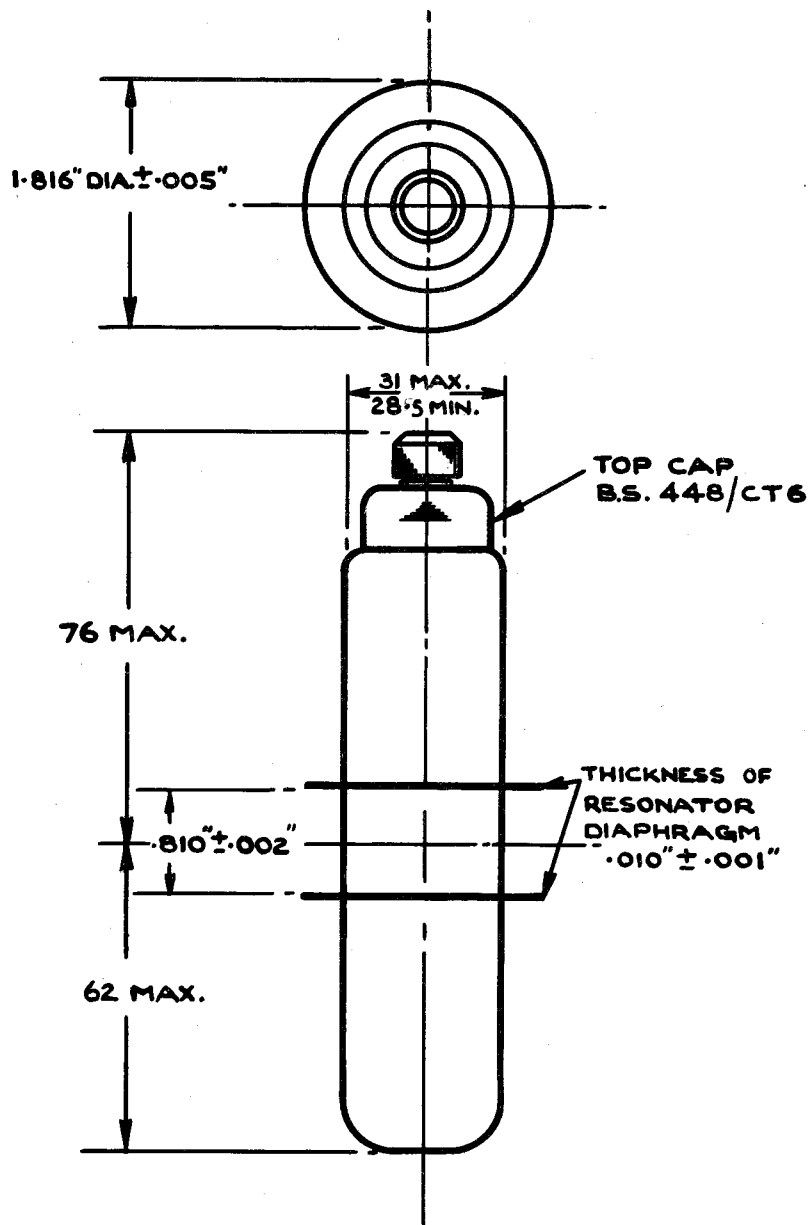
→ <u>TYPE OF VALVE:-</u> T.R. Switch for use in tunable cavity resonator. → <u>PROTOTYPE:-</u> CV293 without resonator fittings.	<u>MARKING</u> See K1001/4																												
<table border="1" style="width: 100%;"> <thead> <tr> <th colspan="2" style="text-align: center;"><u>RATINGS</u></th> <th colspan="2" style="text-align: center;">Note</th> </tr> </thead> <tbody> <tr> <td colspan="4">All limiting values are absolute</td> </tr> <tr> <td>Operating Frequency (Mc/s)</td> <td style="text-align: center;">600</td> <td style="text-align: center;">A</td> <td></td> </tr> <tr> <td>Min. Primer Supply Voltage (V)</td> <td style="text-align: center;">-800</td> <td style="text-align: center;">B</td> <td></td> </tr> <tr> <td>→ Max. Primer Operating Current (μA)</td> <td style="text-align: center;">150</td> <td style="text-align: center;">B</td> <td></td> </tr> <tr> <td>→ Min. Primer Operating Current (μA)</td> <td style="text-align: center;">100</td> <td style="text-align: center;">B</td> <td></td> </tr> <tr> <td>→ Max. Peak Power (kW)</td> <td style="text-align: center;">500</td> <td style="text-align: center;">C</td> <td></td> </tr> </tbody> </table>	<u>RATINGS</u>		Note		All limiting values are absolute				Operating Frequency (Mc/s)	600	A		Min. Primer Supply Voltage (V)	-800	B		→ Max. Primer Operating Current (μA)	150	B		→ Min. Primer Operating Current (μA)	100	B		→ Max. Peak Power (kW)	500	C		<u>DIMENSIONS AND CONNECTIONS</u> See drawing on Page 3. ←
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<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
<u>NOTES</u>					
<ol style="list-style-type: none"> 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 μA. The current through the valve shall be limited to 150 μA by series resistances of which at least 1 Megohm must be placed adjacent to the valve. 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. 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. 					

CV2739/2/2



ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.