

ADMIRALTY SIGNAL ESTABLISHMENT

Specification AD/CV298/Issue 2 Dated 8.10.46. To be read in conjunction with K1001	<u>SECURITY</u>	
	<u>Specn.</u> Restricted	<u>Valve</u> Unclassified

<u>TYPE OF VALVE</u> :- Single-pole double throw vacuum switch	<u>MARKING</u> See K1001/4.
<u>ENVELOPE</u> :- Kovar/Glass	Additional Marking:- (See Note E)
<u>PROTOTYPE</u> :- FA15	

<u>RATING</u>		Note	<u>BASE</u>
Max. Voltage between any two Contacts (V)(RMS)	3000		A
Max. Continuous Current (A)(RMS)	15	B	
Ambient Temperature Range (°C)	-40 to +100		<u>DIMENSIONS</u> See Page 3.
Max. Contact Pressure (gms)	500		<u>PACKING</u> See K1001/7.
Recommended Contact Pressure (gms)	75	C	

NOTES

- A. At sea level, 50% humidity.
- B. The life of the switch depends upon the interrupting rating, with a resistance load, as follows :-

<u>V (RMS)</u>	<u>Current (A)</u>	<u>Operation (Total Life)</u>
3000	10	1000
3000	3	100,000
3000	1	1,000,000

Notes continued overleaf ...

NOTES (Contd.)

- C. Applied at a distance of $2\frac{3}{8}$ " from the flexible diaphragm; the pressure must be capable of closing the gap in either direction from any position.
- D. All metal parts of the valve must be smeared with vaseline after sand blasting.
- E. All valves shall be graded according to the measurement of contact gap at each 0.001" from 0.023" to 0.031" and the gap indicated by a marking on the switch and on the carton.

The contact gap is to be measured at a point $2\frac{3}{8}$ " distant from the flexible diaphragm.

TESTS

To be performed in addition to those applicable in K1001.

	Test Conditions	Test	Limits		No. Tested
			Min.	Max.	
a	Moving contact made alternately to each fixed contact, and a voltage of 6000 V. peak applied between each fixed contact and the moving contact.	There shall be no breakdown between the contacts and no appreciable glow discharge due to remanent gas.			100%
b	Moving contact to be made to each fixed contact alternately with a pressure of 75 grams applied at a point $2\frac{3}{8}$ " from the flexible diaphragm.	<p>Contact resistance measured between the point of applied pressure and the flexible lead not to exceed 100 milliohms with a current of 10 A.</p> <p><i>THE RESISTANCE MEASURED BETWEEN COMMON TERMINAL AND EITHER FLEXIBLE LEAD IS NOT TO EXCEED 25 MILLIOHMS WITH A CURRENT OF 10 AMPERES FLOWING.</i></p>			100%

DIMENSIONS

CV298

