## VALVE ELECTRONIC

**CV85** 

Specification MAP/CV85/Issue 5	SECURITY		
Dated 21.7.49. To be read in conjunction with K1001, ignoring clauses: 5.2, 5.8.	Specification  RESTRICTED  (Incluse	<u>Valve</u> UNCLASSIFIED	

7.0.			Muelas	o.		
Indicates a change						
TYPE OF VALVE:	Enclosed triggered spark gap.			MARKING		
CATHODE:	Cold		s	ee Kl001/4		
ENVELOPE:	Glass-unmetallised; protected (See Note B).		BASE CL3			
PROTOTYPE:	₹2023		<u>C</u>	CONNECTIONS		
D AMTINO			Contacts	Electrode		
RATING Trigger Voltag		Note A	1 2 3 T.C.	Trigger electrode Anode No connection Cathode		
			TOP CAP See K1001/AI/D5.11			
			DIMENSIONS			
			See drawing on Page 4.			

## NOTES

A. Under the following conditions: -

Main Gap Voltage = 7.2 kV. Pulse Length = 1.0  $\mu$ sec.

Repetition Frequency = 1200 per sec.

Constant current charging is used and the load and line are matched.

B. The valve shall be provided with adequate splinter proofing.

C	V85	Tests			Page	2.
	To be performed in	addition to those	appli	cable	in K100	01.
	Test Conditions	Test	Lin Min.	its Max.	No. Tested	Note
	For the purpose of the for shall be measured with re- trigger rod.	llowing tests, all spect to the anode	elect	rode j	potentia Loses th	als ne
8.	Cathode Voltage = -4.5 kV. max. Trigger circuit shall be derived from an approved pulse generator supplying a positive pulse of 9 kV. to 11 kV. on open circuit, at a repetition frequency of 1200 per sec. and with a build up time to max. voltage of 0.5 to 0.75 μsecs. The line shall be of 80Ω impedance and designed for a pulse length of 1 μsec. and shall be charged through a choke of 180H. The external load shall be matched to the line.	A spark shall occur which also delivers power to the load circuit			100%	1
b	Cathode Voltage = 7.2 kV. Other test condi- tions as in 'a'	Trigger break- down voltage(kV)	-	6.0	100%	
o	Cathode Voltage = -6.6 kV. Other test condi- tions as in 'a'	1. Jitter in usecs. (total lateral movement of the trailing edge of the monitored pulse). 2. Fluctuations of amplitude		±10%	100%	

## TESTS (Cont'd.)

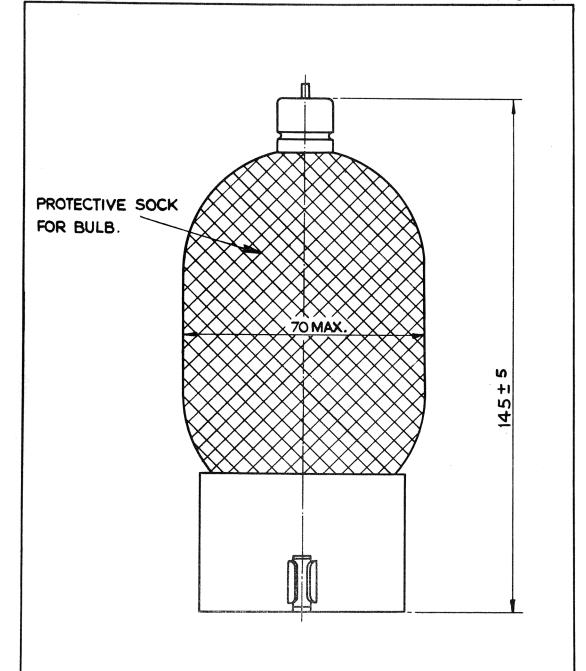
**CV85** 

To be performed in addition to those applicable in K1001.

	Test Conditions	Test	Lim	its	No.	Note
reno entre			Min.	Max.	Tested	
đ	Cathode Voltage = -8.4 kV. Other test condi- tions as in 'a'	1. Jitter in µsecs. (total lateral move- ment of the trailing edge of the moni- tored pulse). 2. Fluctuations of amplitude	ess	0.2 -10%	100%	
	With the set up as in test 'a' the cathode voltage shall be increased until unstable operation occurs	Negative cath- ode voltage (kV) at which irre- gular breakdown (i.e. breakdown not correlated with the trigger pulse) occurs at a rate of between 1 & 6 times per sec.	9.0	60	100% or S	

## NOTE

1. Test clause 'a' must be performed first in the test schedule.



DIMENS' ..

IN M/M