MINISTRY OF SUPPLY - DLRD(A)/TRE

VALVE ELECTRONIC **CV403**

Specification MOS(A)/CV403 Issue 3 Dated 26.11.52 To be read in conjunction with K1001, excluding clauses 5.2 and 5.8.	SECURITY	
	Specification	Valve
	UNCLASSIFIED	UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Enclosed Triggered Spark Gap

CATHODE - Cold

ENVELOPE - Glass - unmetallised (Protected - See Note B)

PROTOTYPE - VX6113

MARKING

See K1001/4

BASE

B15A3

RATING

			Note
Max. Trigger Voltage	(kV)	6.0	A
Min. Working Voltage	(kV)	9.0	
Peak Output Power	(kW)	470	A

CONNECTIONS

Pin	Electrode
1	Trigger
2 to 7	Omitted
8	Anode
9 to 14	Omitted
15	No Connection
TC	Cathode

TOP CAP

See K1001/A1/D5.11

DIMENSIONS

See Drawing, Page 3

NOTES

A. Measured under the following conditions:-

Main Gap Voltage = 10.2 kV peak
Pulse Length = 0.5 μsec.
Repetition Frequency = 800 pps.

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

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

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TESTS

To be performed in addition to those applicable in K1001

	Test Conditions	Test	Limits Min.	Limits Max.	No. Tested	Note
a	Cathode Voltage = -6.0 kV max. Trigger voltage shall be derived from an approved pulse generator supplying a positive pulse of 10 kV ± 10% on open-circuit at a repetition frequency of 800 pps and with a build-up time to max. voltage of 0.5 - 0.75 μsec. The line shall have an impedance of 50 ohms and designed for a pulse length of 0.5 μsec, and shall be charged through a choke of 180 H. The external load shall be matched to the line.	A spark shall occur which also delivers power to the load circuit.			100%	
b	Cathode Voltage = -10.2 kV Other conditions as in Test (a).	Trigger breakdown voltage (kV)	-	6.0	100%	
c	Cathode Voltage = -9.0 kV Other conditions as in Test (a).	1. Jitter (μsec) (Total lateral movement of the trailing edge of the monitored pulse).	-	0.2	100%	
		2. Fluctuations of amplitude.	-	±10%		
d	Cathode Voltage = -11.2 kV Other conditions as in Test (a).	1. Jitter (μsec) (Total lateral movement of the trailing edge of the monitored pulse).	-	0.2	100%	
		2. Fluctuations of amplitude.	-	±10%		
e	With the set-up as in Test (a), the cathode voltage shall be increased until unstable operation occurs.	Cathode Voltage at (kV) which irregular breakdown occurs at a rate of between 1-6 times per sec. (i.e. breakdown not correlated with the trigger pulse).	-14.0	-	100 or S.	

NOTE

1. Test (a) must be performed first in the test schedule.

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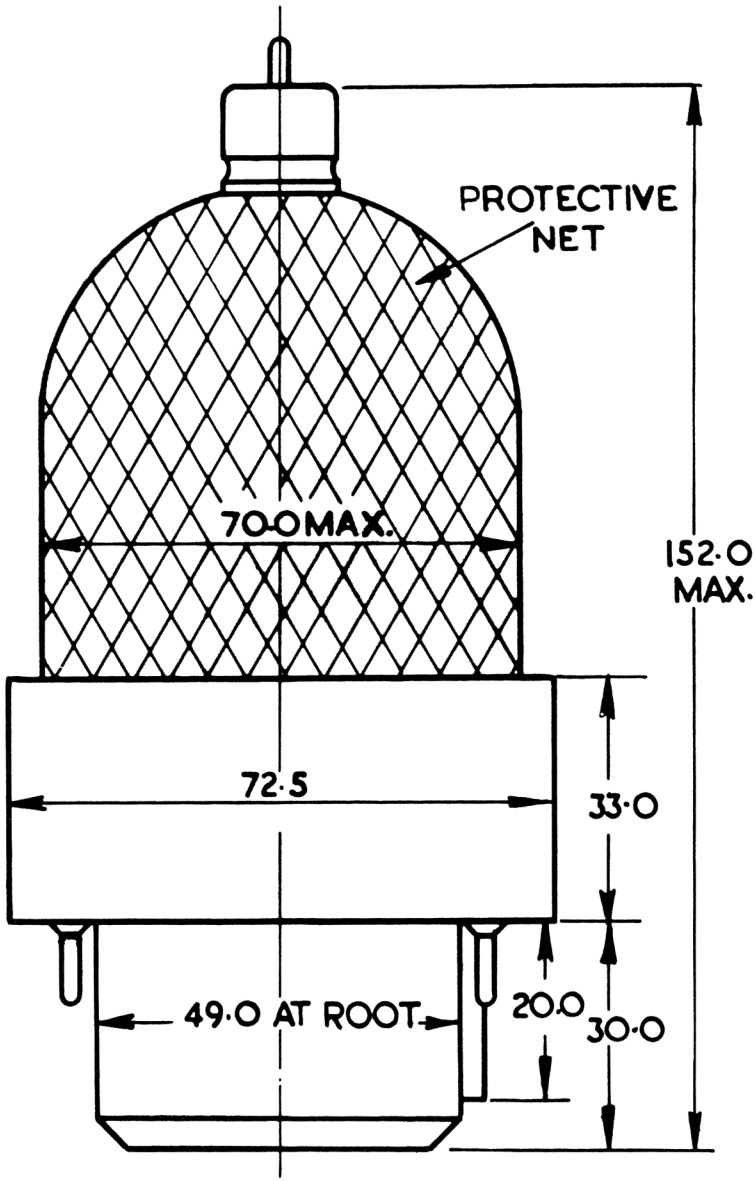

DIMENSIONS IN MMS.