MINISTRY OF SUPPLY D.C.D.

VALVE ELECTRONIC

CV 188

Specification MAP/CV188/Issue 6 Dated 16.1.49 To be read in conjunction with K1001, ignoring clause: 5.2.	SECURITY Specification: [redacted] Undamped Valve: UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE: Gas filled voltage stabiliser. CATHODE: Cold ENVELOPE: Glass - unmetallised	MARKING See K.1001/4 PACKING See K.1005

RATING			Note
Max. Striking Voltage	(V)	140	
Normal Operating Voltage	(V)	100	
Quiescent Current	(mA)	4	
Max. Cathode Current	(mA)	10	
Min. Cathode Current	(mA)	1	

BASE

B4

Pin	Electrode
1	Anode
2	Cathode
3	No connection
4	No connection

REQUIREMENT

To allow the use of the valve as an indicator, the design shall be such that the glow produced by the gas discharge shall be visible at the end of the valve remote from the base.

DIMENSIONS

See K.1001/A1/D1.

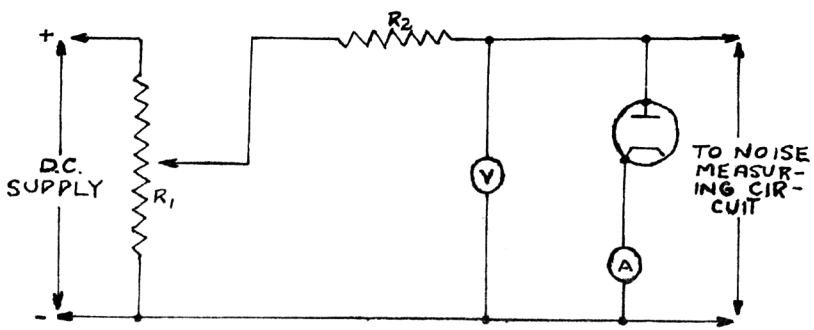
Dimension		Min.	Max.
A	(mm)	-	85
B	(mm)	-	33

TESTS

To be performed in addition to those applicable in K.1001.

	Test Conditions	Test	Limits Min.	Limits Max.	No. Tested
Tests shall be carried out in a circuit similar to that shown in Fig. 1., below.					
a	Increase the voltage applied to the valve until current flows.	Striking Voltage (V)	-	140	100%
Before the tests given below are made, the valve is to be run with the cathode current adjusted to 4 mA. for a period of 5 minutes.					
b	Cathode current adjusted to 4mA.	Output Voltage (V)	85	100	100%
c	Cathode current changed from 10mA. to 1mA.	Output voltage change (V)	-	5.0	100% or S
d	Valve is to be tested for freedom from noise during operation. For this purpose a calibration amplifier-detector having a substantially linear response over the range 50-5000 c.p.s. is to be connected between the anode and cathode. The cathode current is to be varied slowly from 10mA. to 1mA. and at no point in this range must the R.M.S. noise input voltage to the amplifier exceed 100mV.				100% or S

FIG. 1. TEST CIRCUIT



A - Low Resistance Milliammeter. V - Voltmeter.

The values of R1 and R2 will be dependant on the supply voltage available.