MINISTRY OF SUPPLY (D.L.R.D.(A)/R.A.E.)

VALVE ELECTRONIC

CV410

Specification MAP/CV410 Issue 2 Dated 31.1.52. To be read in conjunction with K1001, ignoring clauses:- 5.2, 5.8	SECURITY Specification: UNCLASSIFIED Valve: UNCLASSIFIED

→ Indicates a change

TYPE OF VALVE - Cold Cathode Gas Triode

ENVELOPE - Glass

PROTOTYPE - K3A

RATING			Note
Max. Anode Voltage	(V)	150	
Min. Anode Voltage	(V)	130	
Max. Positive Static Grid Voltage	(V)	75	A
Max. Negative Grid Voltage	(V)	30	A
Max. Mean Anode Current	(mA)	5	B
Max. Peak Anode Current	(mA)	50	
Tube Drop (glow discharge)	(V)	70	
Min. Grid Voltage for start of oscillation	(V)	85	A

MARKING

See K1001/4

BASE

None

TOP CAPS AND END CAPS

See K1001/A1/D1

DIMENSIONS AND CONNECTIONS

See Drawing on Page 4

NOTES

A. With Va = 135 V.

B. This tube should not be used for continuous operation.

TESTS

To be performed in addition to those detailed in K1001

	Test Conditions		Test	Limits		No. Tested	Note
				Min.	Max.		
	Va (V)	Vg (V)					
a	100	0	The valve shall not take current or oscillate	-	-	100%	
b	Increase until oscillation occurs	0	Va (V)	160	-	100%	1.4
c	135	Increase until oscillation occurs	Vg (V)	-	130	100%	1.4
d	135	Reduce from 130 until oscillation ceases	Vg (V)	85	-	100%	1
e	135	Increase until conduction occurs	(1) Vg (V) (2) Ig (uA)	85 -	95 4	100% 100%	2,3, 4

NOTES

1. Test to be carried out in the circuit shown as Fig. 1, on Page 3; valve to be enclosed in light proof box.

2. Test to be carried out with a 2MΩ resistor in the grid lead, and in a circuit similar to figure 2 in Specification AD/CV77; valve to be enclosed in light proof box.

3. To be read immediately before conduction occurs.

4. Test to last sufficient time only to take reading.

CV 410

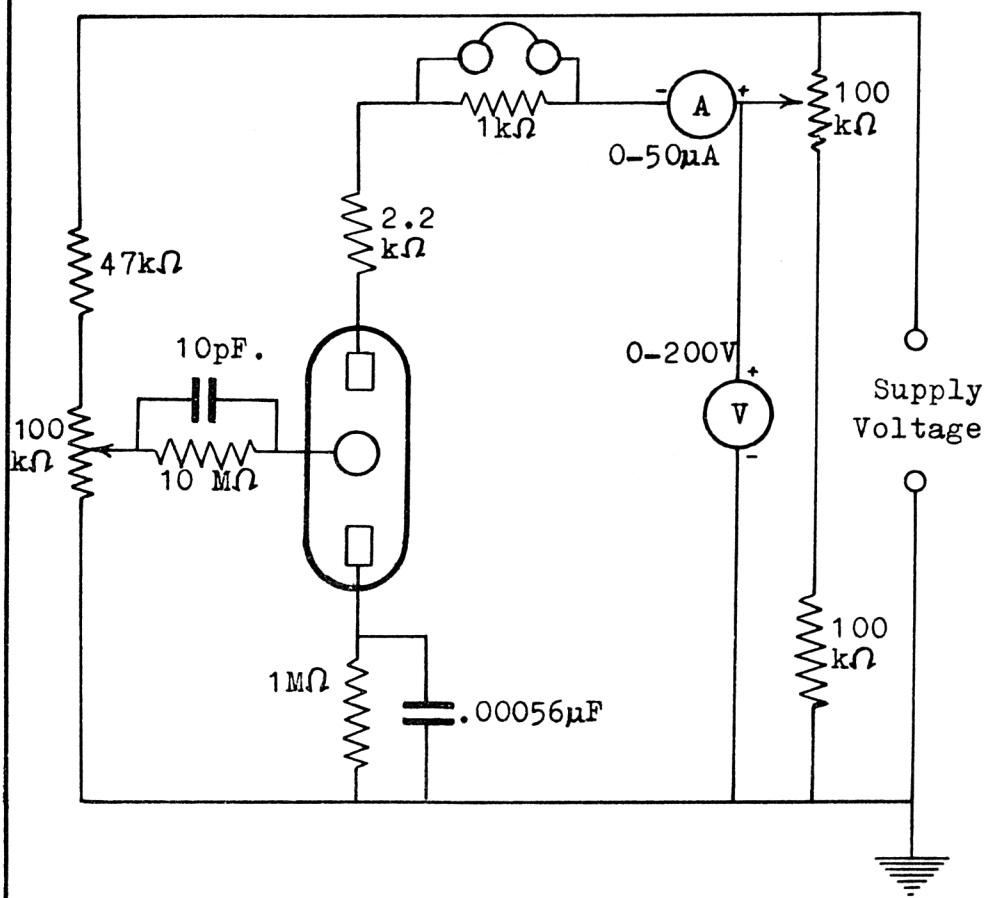
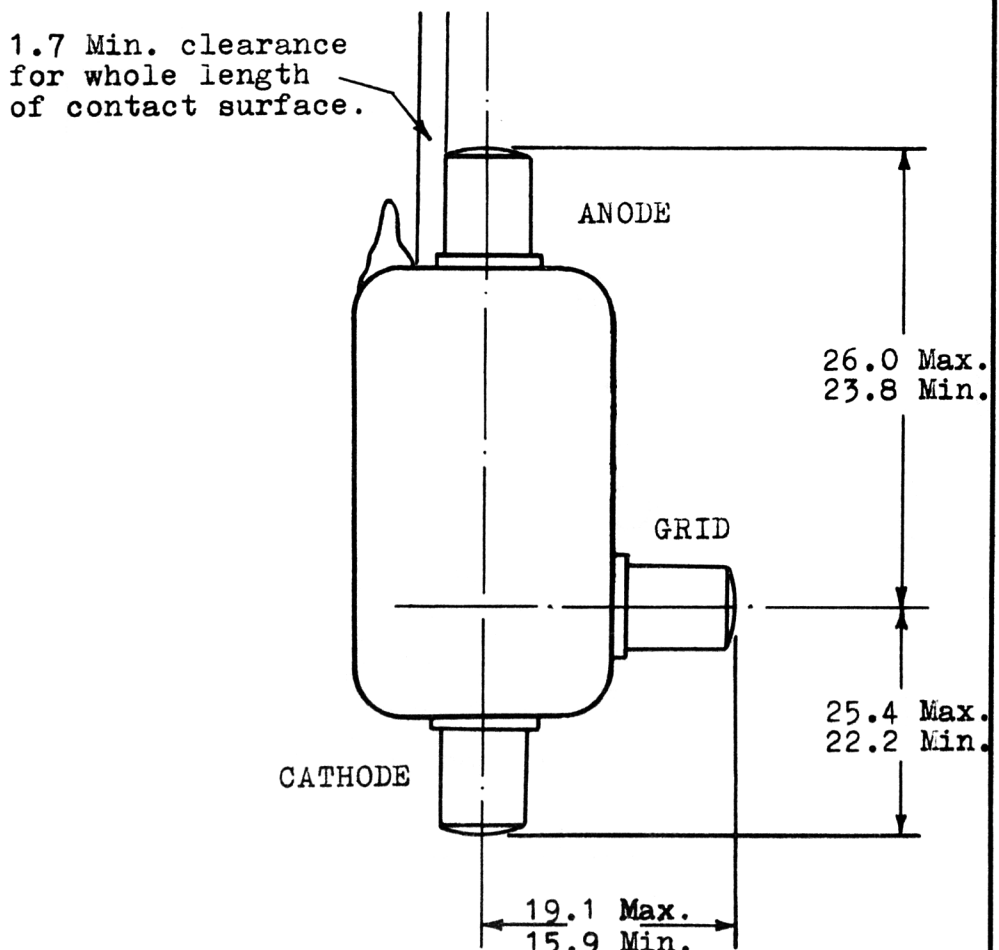

1kΩ
A
0-50μA
100 kΩ
2.2 kΩ
47kΩ
10pF.
0-200V
V
Supply Voltage
100 kΩ
10 MΩ
100 kΩ
1MΩ
.00056μF

Fig. 1



ALL DIMENSIONS IN MILLIMETRES.

CV410

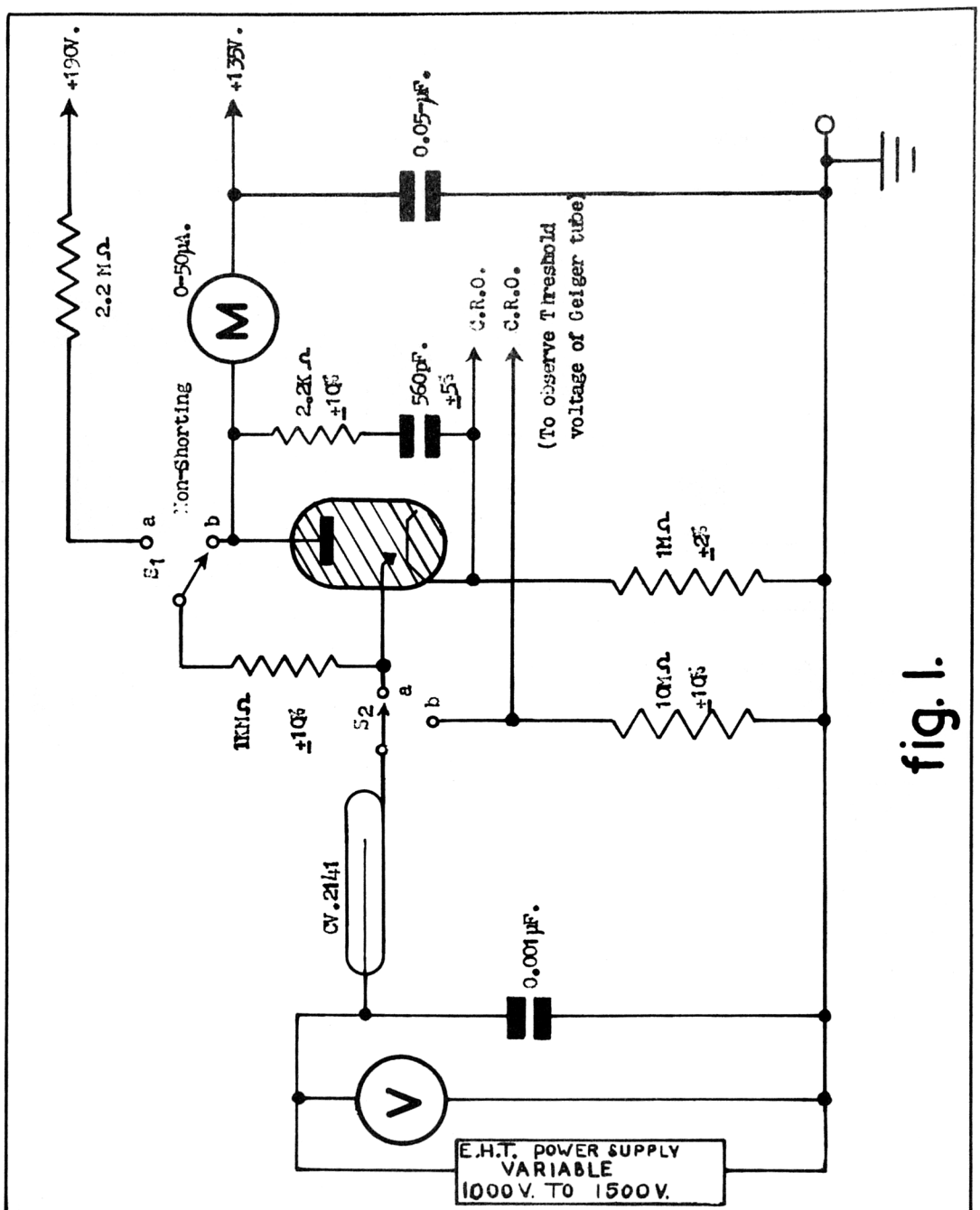

+190V.
2.2 MΩ
+135V.
0-50μA.
M
0.05μF.
2.2KΩ ±10%
560pF. ±5%
C.R.O.
C.R.O.
(To observe Threshold voltage of Geiger tube)
Non-Shorting
a
b
E1
1MΩ ±2%
1MΩ ±10%
S2
a
b
10MΩ ±10%
CV.2141
0.001μF.
V
E.H.T. POWER SUPPLY
VARIABLE
1000V. TO 1500V.

fig. 1.

CV 410

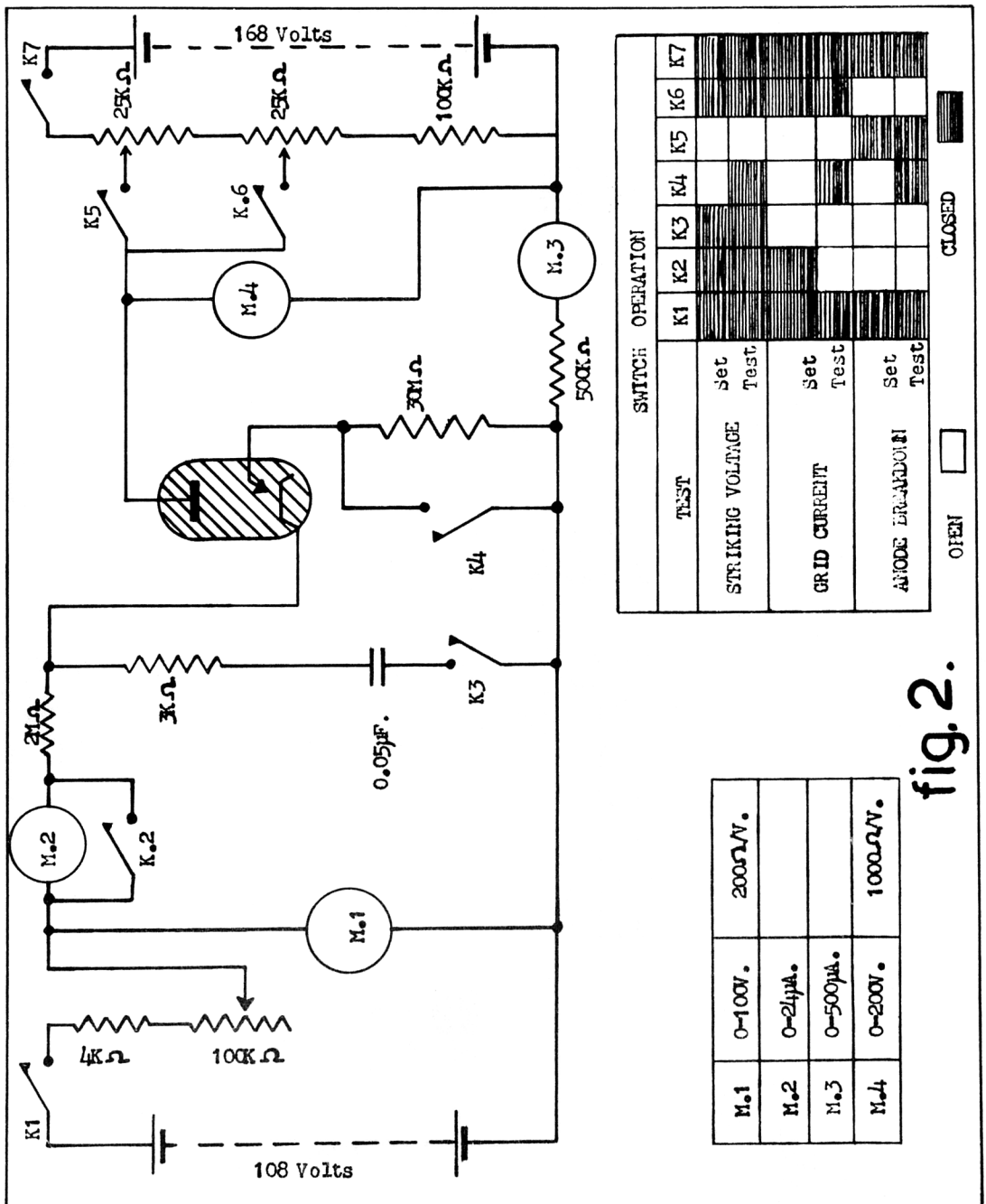
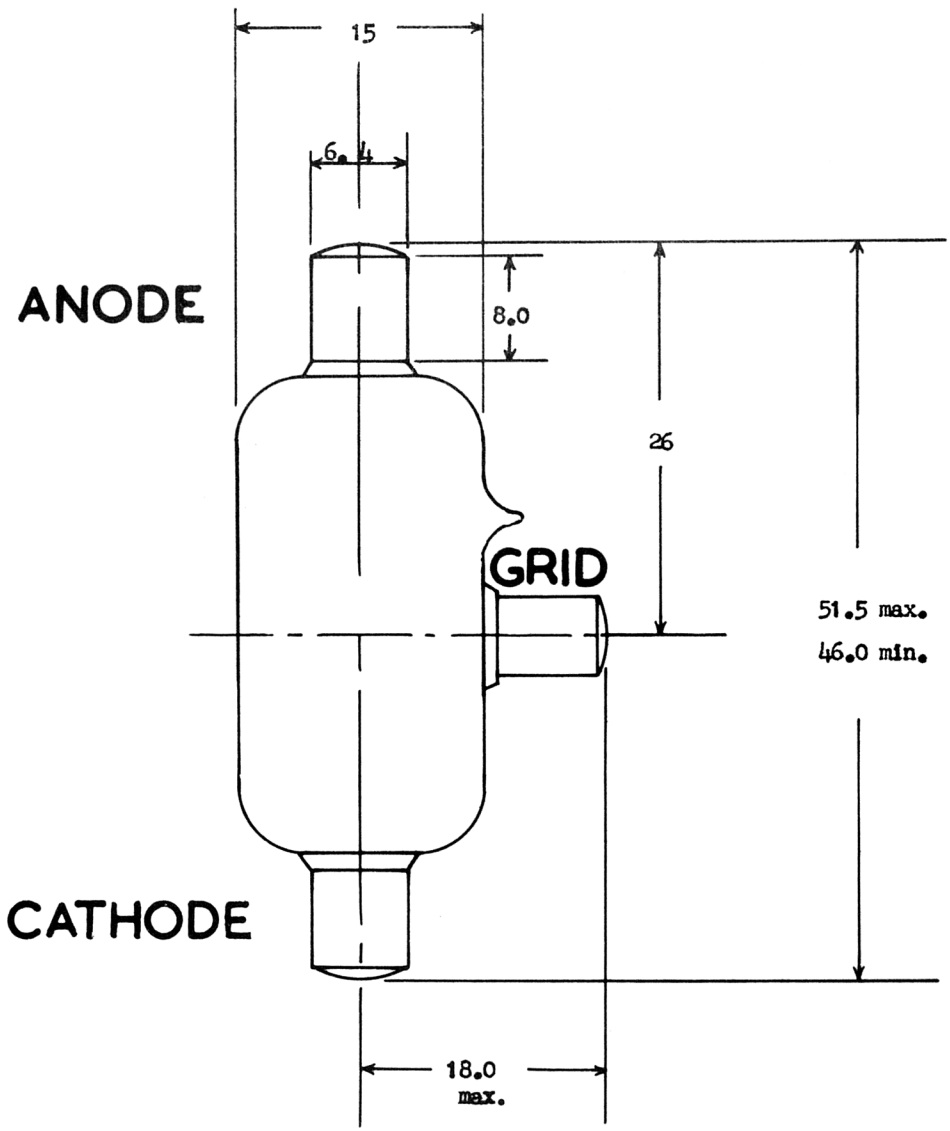

168 Volts
108 Volts
K1
K2
K3
K4
K5
K6
K7
M.1
M.2
M.3
M.4
25KΩ
25KΩ
100KΩ
4KΩ
100KΩ
2KΩ
3KΩ
0.05μF.
30MΩ
500KΩ
SWITCH OPERATION
TEST
STRIKING VOLTAGE
GRID CURRENT
ANODE BREAKDOWN
Set
Test
OPEN
CLOSED
M.1 0-100V. 200Ω/V.
M.2 0-2μA.
M.3 0-500μA.
M.4 0-200V. 1000Ω/V.

fig. 2.

CV410



All dimensions in millimetres

fig. 3.