# VALVE ELECTRONIC CV1616

(POVT 46)

GENERAL POST OFFICE: E-IN-C ( W )

| Specification: G.P.O./CV1616/Issue 1<br>Dated: 21.2.47<br>To be read in conjunction with K 1001 | SECURITY<br>Specification: Restricted<br>Valve: Restricted |
|---|---|

----> indicates a change

TYPE OF VALVE: Transmitting triode
CATHODE: Directly heated tungsten filament
ENVELOPE: Unmetallised glass
PROTOTYPE -

MARKING
See K1001/4
Additional markings required (See Notes A,B & C)
Serial No.....
Filament Volts .....

| RATING | | | Note |
|---|---|---|---|
| Filament voltage | (V) | As Marked | B |
| Nominal filament current | (A) | 10.0 | |
| Max. anode voltage | (kV) | 4.0 | D |
| Max. anode dissipation | (W) | 250.0 | D |
| Amplification factor | | 22.0 | E |
| Mutual conductance | (mA/V) | 1.75 | E |
| Anode impedance | (ohms) | 12,500 | E |

BASE
See drawing on page 3

CONNEXIONS
See drawing on page 3

DIMENSIONS
See drawing on page 3

PACKING
See K1001/7.3

NOTES

A. The Serial Numbers will be allotted by the Inspecting Officer
B. The Marked Voltage is defined on page 2, test (a)
C. It is not essential that the additional markings shall appear within the frame
D. The maximum frequency of operation for these ratings is 20 Mc/s
E. Measured with Va = 3 kV, and Ia = 60 mA.

## TESTS

The tests shown in Table I, or alternatively, those shown in Table II, shall be performed in addition to those applicable in K1001.

Table I (for A.C. filament heating)

| | TEST CONDITIONS | | | | TEST | LIMITS | | No. Tested | Note |
|---|---|---|---|---|---|---|---|---|---|
| | Vf(V) | Va(kV) | Vg(kV) | Ia(mA) | | Min. | Max. | | |
| (a) | Read | 0.4 | 0.4 | - | Vf. Minimum required for peak emission of 0.6 amps. To be known as "Marked Voltage"(V) | 11.0 | 13.0 | 100% | 1 |
| (b) | M.V. | - | - | - | If (A) | 8.0 | 12.0 | 100% | |
| (c) | M.V. | 3 | Adjust | 84 | Reverse Ig (μA) | - | 30.0 | 100% | 2 |
| (d) | M.V. | 2<br>4 | Adjust<br>Adjust | 60 | μ | 18.0 | 26.0 | 100% | |
| (e) | M.V. | 2.5 | Read | 50 | Vg (V) | -56.0 | -80.0 | 100% | |

Table II (for D.C. filament heating)

| | TEST CONDITIONS | | | | TEST | LIMITS | | No. Tested | Note |
|---|---|---|---|---|---|---|---|---|---|
| | Vf(V) | Va(kV) | Vg(kV) | Ia(mA) | | Min. | Max. | | |
| (a) | Read | 0.4 | 0.4 | - | Vf. Minimum required for peak emission of 0.6 amps. To be known as "Marked Voltage"(V) | 11.0 | 13.0 | 100% | 1 |
| (b) | M.V. | - | - | - | If (A) | 8.0 | 12.0 | 100% | |
| (c) | M.V. | 3 | Adjust | 84 | Reverse Ig (μA) | - | 30.0 | 100% | 2 |
| (d) | M.V. | 2<br>4 | Adjust<br>Adjust | 60 | μ | 18.0 | 26.0 | 100% | |
| (e) | M.V. | 2.5 | Read | 50 | Vg (V) | -50.0 | -74.0 | 100% | |

## NOTES

1. The test shall be performed in accordance with K1001/AV
2. The duration of test (c) shall be 15 minutes and the reverse grid current shall not be rising at the end of the test.

# CV1616

## OUTLINE DRAWING