

VALVE ELECTRONIC **CV 1613**GENERAL POST OFFICE: E-IN-C (W)

(POVT 21)

| Specification: G.P.O./CV1613/Issue 1 Dated: 19.3.47 To be read in conjunction with K 1001 | <table border="1"> <tr> <th colspan="2">SECURITY</th></tr> <tr> <td>Specification</td><td>Valve</td></tr> <tr> <td>Restricted</td><td>Restricted</td></tr> </table> | SECURITY | | Specification | Valve | Restricted | Restricted |
|---|---|----------|--|---------------|-------|------------|------------|
| SECURITY | | | | | | | |
| Specification | Valve | | | | | | |
| Restricted | Restricted | | | | | | |

---> indicates a change

| <u>TYPE OF VALVE:</u> Vacuum half-wave rectifier <u>CATHODE:</u> Directly heated tungsten filament <u>ENVELOPE:</u> Glass; double-ended <u>PROTOTYPE:</u> - | | <u>MARKING</u> See K1001/4 Additional markings required (See Notes A, B & C) Serial No..... Filament Volts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------|---|--|------|--|-----------|----------------------|------|---|------------------------------|------|--------------------------------|------|-------------------------------|------|-----------------------------------|--|--|--|-------------|--|--|------|--|--|--------------------|--|--|---|--|--|-------------------|--|--|-----------------|--|--|-----------|------|------|--------|---|-----|--------|---|-----|--------|---|----|----------------|--|--|---------------|--|--|
| <table border="1"> <tr> <th colspan="2"><u>RATING</u></th><th rowspan="2">Note</th></tr> <tr> <th></th><th>As Marked</th></tr> <tr> <td>Filament voltage (V)</td><td>15.5</td><td rowspan="11">B</td></tr> <tr> <td>Nominal filament current (A)</td><td>30.0</td></tr> <tr> <td>Max. peak inverse voltage (kV)</td><td>10.0</td></tr> <tr> <td>Max. D.C. output voltage (kV)</td><td>0.25</td></tr> <tr> <td>Max. rectified output current (A)</td><td></td></tr> </table> | | <u>RATING</u> | | Note | | As Marked | Filament voltage (V) | 15.5 | B | Nominal filament current (A) | 30.0 | Max. peak inverse voltage (kV) | 10.0 | Max. D.C. output voltage (kV) | 0.25 | Max. rectified output current (A) | | <table border="1"> <tr> <th colspan="3"><u>BASE</u></th></tr> <tr> <td colspan="3">None</td></tr> <tr> <th colspan="3"><u>CONNECTIONS</u></th></tr> <tr> <td colspan="3">The anode lead shall be brought out at the opposite end of the valve from the filament leads. All leads shall be suitably insulated and bound to the lips of the valve, and the loose ends shall be not less than 6 inches in length.</td></tr> <tr> <th colspan="3"><u>DIMENSIONS</u></th></tr> <tr> <td colspan="3">See K1001/A1/D3</td></tr> <tr> <th>Dimension</th><th>Min.</th><th>Max.</th></tr> <tr> <td>A (mm)</td><td>-</td><td>420</td></tr> <tr> <td>B (mm)</td><td>-</td><td>185</td></tr> <tr> <td>C (mm)</td><td>-</td><td>75</td></tr> <tr> <th colspan="3"><u>PACKING</u></th></tr> <tr> <td colspan="3">See K1001/7.3</td></tr> </table> | | <u>BASE</u> | | | None | | | <u>CONNECTIONS</u> | | | The anode lead shall be brought out at the opposite end of the valve from the filament leads. All leads shall be suitably insulated and bound to the lips of the valve, and the loose ends shall be not less than 6 inches in length. | | | <u>DIMENSIONS</u> | | | See K1001/A1/D3 | | | Dimension | Min. | Max. | A (mm) | - | 420 | B (mm) | - | 185 | C (mm) | - | 75 | <u>PACKING</u> | | | See K1001/7.3 | | |
| <u>RATING</u> | | Note | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | As Marked | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Filament voltage (V) | 15.5 | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nominal filament current (A) | 30.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. peak inverse voltage (kV) | 10.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. D.C. output voltage (kV) | 0.25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. rectified output current (A) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>BASE</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>CONNECTIONS</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| The anode lead shall be brought out at the opposite end of the valve from the filament leads. All leads shall be suitably insulated and bound to the lips of the valve, and the loose ends shall be not less than 6 inches in length. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>DIMENSIONS</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| See K1001/A1/D3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dimension | Min. | Max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A (mm) | - | 420 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B (mm) | - | 185 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C (mm) | - | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>PACKING</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| See K1001/7.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>NOTES</u> 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. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

TESTS

To be performed in addition to those applicable in K1001

| | TEST CONDITIONS | | TEST | LIMITS | | No. Tested | Note |
|-----|-----------------|---------|---|--------|------|---------------|------|
| | If (A) | Va (DC) | | Min. | Max. | | |
| | | | | | | | |
| (a) | 15.5 | - | Vf (V) To be known as "Marked Voltage" | 14.5 | 16.5 | 100% | |
| (b) | 15.5 | Read | Anode voltage required to produce anode current of 1 amp. (V) | - | 1000 | 100% | |
| (c) | 15.5 | 12 kV | D.C. output per valve (mA) | 250 | - | 100% | 1 |

NOTE

1. This test shall be conducted in a bi-phase half-wave circuit, and its duration shall be 30 minutes.
No blue glow, sparking, or flash-over shall occur.