

## VALVE ELECTRONIC

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

|  |                      |              |
|--|----------------------|--------------|
| Specification: G.P.O. /CV438/ Issue 1<br>Dated: April 1949<br>To be read in conjunction with K 1001 ignoring clauses 5.2 and 5.3 | <u>SECURITY</u>      |              |
|  | <u>Specification</u> | <u>Valve</u> |
|  | Restricted           | Restricted   |

—————> indicates a change

|   |              |  |               |
|---|--------------|--|---------------|
| <u>TYPE OF VALVE:</u> Gas filled stabiliser<br><u>CATHODE:</u> Cold<br><u>ENVELOPE:</u> Unmetallised glass<br><u>PROTOTYPE:</u> G120/1B |              | <u>MARKING</u>                         |               |
|   |              | See K1001/4                            |               |
| <u>RATING</u>   |              | <u>BASE</u><br>B4<br><u>CONNEXIONS</u> |               |
|   |              | Note                                   |               |
| Nominal breakdown voltage   | (V) 100      | Pin                                    | Electrode     |
| Nominal maintaining voltage   | (V) 55       | 1                                      | Anode         |
| D.C. operating current continuous   | (mA) 2 to 30 | 2                                      | Cathode       |
| Regulation 2 mA to 30mA   | (V) 3        | 3                                      | Not connected |
| Max. peak cathode current<br>(averaged over 1 second)   | (mA) 50      | 4                                      | Not connected |
| Max. direct cathode current   | (mA) 30      |  |               |
|   |              | <u>DIMENSIONS</u>                      |               |
|   |              | See K1001/A1/D1                        |               |
|   |              | Dimension                              | Min.    Max.  |
|   |              | A (mm)                                 | 102           |
|   |              | B (mm)                                 | 35            |

CV 438

TESTS

To be performed in addition to those applicable in K1001

|   | TEST<br>CONDITIONS | T E S T                                | LIMITS |      | No.<br>Tested | Note  |
|---|--------------------|--|--------|------|---------------|-------|
|   |                    |  | Min    | Max. |               |       |
| a | Ia(mA)             |  |        |      |               |       |
|   | -                  | Anode breakdown voltage (V)            |        | 120  | 100%          | A,B,C |
| b | 20                 | Anode maintaining voltage (V)          |        | 65   | 100%          | A,B   |
| c | 2                  | Anode volts "x" (V)                    |        |      |               |       |
|   | 30                 | Anode volts "y" (V)                    |        |      |               | A,B,D |
|   |                    | Difference between V "x" and V "y" (V) |        | 7    | 100%          |       |

N O T E

1. Test shall be carried out using a D.C. power supply with not more than 0.5 per cent ripple. A protective resistance of 5,000 ohms shall be included in the cathode circuit.
2. Voltages shall be measured directly across the valve under test.
3. A voltage not exceeding 75 volts D.C. shall be applied to the anode and increased gradually until the valve strikes.
4. A period of not less than 30 seconds shall be allowed to elapse after the establishment of the conditions specified, before a reading of the maintaining voltage is taken.