

# FERRANTI

## VARIABLE-MU R.F. PENTODE

A directly heated Variable Mu Pentode, designed for use as an R.F. or I.F. Amplifier in Battery Operated Receivers. The filament is suitable only for DC. operation.

### PHYSICAL DETAILS.

|                     |     |     |     |                                 |
|---------------------|-----|-----|-----|---------------------------------|
| Base                | ... | ... | ... | B7G—All Glass.                  |
| Max. Overall Length | ... | ... | ... | 54.5 mm. (2 $\frac{1}{8}$ in.). |
| Max. Seated Height  | ... | ... | ... | 47.5 mm. (1 $\frac{7}{8}$ in.). |
| Max. Diameter       | ... | ... | ... | 19.0 mm. ( $\frac{3}{4}$ in.).  |
| Mounting Position   | ... | ... | ... | Any.                            |

### BASE CONNECTIONS.

|                                                       |                                                       |
|-------------------------------------------------------|-------------------------------------------------------|
| Pin 1—Filament (–), and<br>Suppressor Grid ( $g_3$ ). | Pin 4—No Connection.                                  |
| Pin 2—Anode.                                          | Pin 5—Filament (–), and<br>Suppressor Grid ( $g_3$ ). |
| Pin 3—Screen Grid ( $g_2$ ).                          | Pin 6—Control Grid ( $g_1$ ).                         |
| Pin 7—Filament (+).                                   |                                                       |

### FILAMENT.

|                  |     |     |            |
|------------------|-----|-----|------------|
| Filament Voltage | ... | ... | 1.4 volts. |
| Filament Current | ... | ... | 50 mA.     |

### RATINGS.

|                           |     |             |
|---------------------------|-----|-------------|
| Max. H.T. Supply Voltage  | ... | 90 volts.   |
| Max. Anode Voltage        | ... | 90 volts.   |
| Max. Screen Voltage       | ... | 67.5 volts. |
| Max. Control Grid Voltage | ... | 0 volts.    |
| Max. Cathode Current      | ... | 5.5 mA.     |

### TYPICAL OPERATION (as R.F. or I.F. Amplifier).

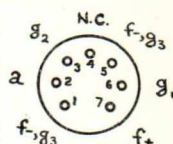
|                                    |     |     |      |      |      |                |
|------------------------------------|-----|-----|------|------|------|----------------|
| Anode Voltage                      | ... | 45  | 67.5 | 90   | 90   | volts.         |
| Screen Grid Voltage                | ... | 45  | 67.5 | 45   | 67.5 | volts.         |
| Control Grid Voltage               | ... | 0   | 0    | 0    | 0    | volts.         |
| Anode Current                      | ... | 1.7 | 3.4  | 1.8  | 3.5  | $\mu$ A.       |
| Screen Current                     | ... | 0.7 | 1.5  | 0.65 | 1.4  | $\mu$ A.       |
| Anode Impedance                    | ... | 350 | 250  | 800  | 500  | k $\Omega$     |
| Mutual Conductance                 | ... | 700 | 875  | 750  | 900  | $\mu$ A/volts. |
| $V_{g_1}$ (for $g_m = 10 \mu$ A/V) | ... | -10 | -16  | -10  | -16  | volts.         |

### CAPACITANCES.

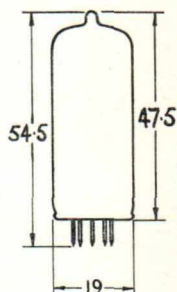
|             |     |     |     |           |
|-------------|-----|-----|-----|-----------|
| $C_{in}$    | ... | ... | ... | 3.6 pF.   |
| $C_{out}$   | ... | ... | ... | 7.5 pF.   |
| $C_{a-g_1}$ | ... | ... | ... | <0.01 pF. |

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Base  
Connections  
Underside View  
of Base



All dimensions shown are in millimetres (max.).





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